

Attachment N Materials for Environmental and Social Considerations

Attachment N-1 Screening Formats

Attachment N-2 Pilot Project Details for Environmental and Social Considerations

Attachment N-3 Project Description Report

Attachment N-4 Details of Environmental and Social Considerations in Kenya

Attachment N-1 Screening Formats

Lot 1

Ilkilnyeti Dispensary	N1-2
Iltumtum Primary School	N1-11
Meto Dispensary	N1-20
Olemoncho Primary School	N1-29
Olkinyei Dispensary	N1-38

Lot 2

Angata Nanyokei Dispensary	N1-47
Illaut Primary School.....	N1-57
Latakweny Dispensary	N1-67
Marti Primary School	N1-77
South Horr Dispensary	N1-88
Tuum Primary School	N1-98

SCREENING FORMAT

Project for the Establishment of Rural Electrification Model using Renewable Energy

Lot 1: Electrification of Health Institution with Solar PV in Ilkirinyeti, Kajiado County

Project Executing Organization:

Chief Executive Officer,

Rural Electrification Authority

P.O. Box 34585-00100

Tel: +254-020-4953000


+254-020-4953600

Fax: +254-20-2710944

E-Mail: info@rea.co.ke

Attention to,

Eng. Raphael Khazenzi

Signature: 

Date: 28/11/12

Check Items

Question 1 Address of a project site: Ilkirinyeti Dispensary, Kajiado County

Question 2 Outline of the project

- *The project involves electrification of the dispensary and cell phone charging.*
- *This involves mounting solar panels on the rooftop of the dispensary facility to tap solar energy which is used to charge batteries before being converted to electric energy.*

2-1 Does the project come under following sectors?

Yes No

If yes, please mark the corresponding items.

- Mining development
- Industrial development
- Thermal power (including geothermal power)
- Hydropower, dams and reservoirs
- River/erosion control
- Power transmission and distribution lines
- Roads, railways and bridges
- Airports
- Ports and harbors
- Water supply, sewage and waste treatment
- Waste management and disposal
- Agriculture involving large-scale land-clearing or irrigation
- Forestry
- Fishery
- Tourism

2-2 Does the project include any of the following items?

Yes No

If yes, please mark following items that the project includes.

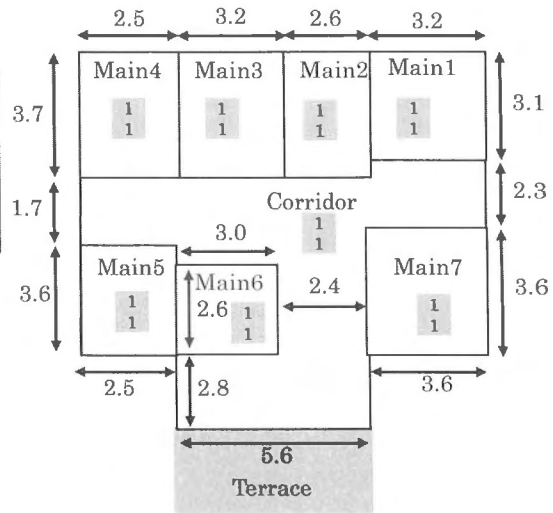
- Involuntary resettlement (scale: households persons)
- Groundwater pumping (scale: m³/year)
- Land reclamation, land development and land-clearing (scale: hectors)
- Logging (scale: hectors)

2-3 Description of the Project:
(Scale and/or Basic Information)

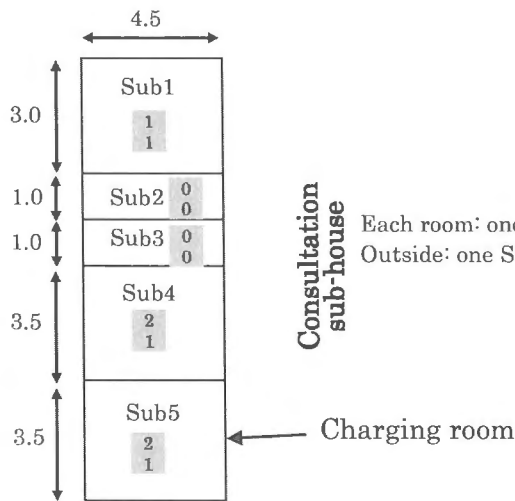
- *The project involves supplying the dispensary with electricity using photo voltaic solar technology.*
- *This involves mounting solar panels on the rooftop of the dispensary facility to tap solar energy which is used to charge batteries before being converted to electric energy.*
- *The Direct Current (DC) from the battery will be converted to Alternate Current (AC) by an inverter*
- *Fluorescent lamps will be used for lighting inside the premises while light emitting diode (LED) lamps will be used outside of the premises for security lighting*
- *PV size of 1.4KW*

(See the layout plan below)

The main building is newly built. Wiring is also installed. The Contractor shall use the existing wiring including SWs.



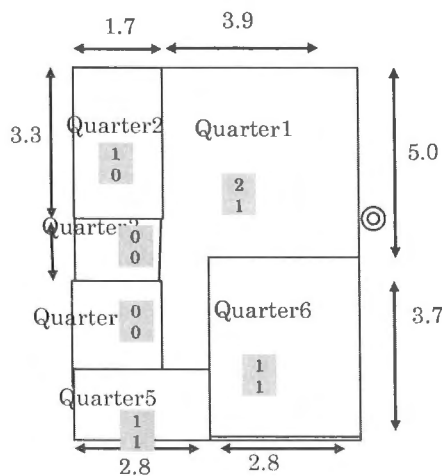
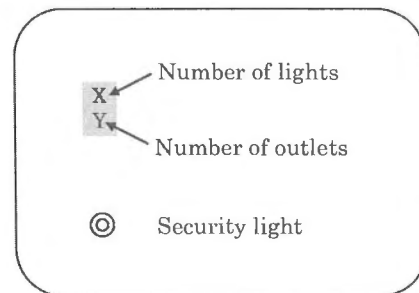
Main building



Consultation sub-house

Each room: one SW for lights
Outside: one SW for 4 security lights

Ilkirinyetti dispensary



Staff quarter

Each room: one SW for light
Outside: one SW for 1 security light

2-4 Is the project consistent with the higher program/policy?

Yes: Please describe the higher program/policy.

- *Energy Act of 2006,*
- *Rural Electrification Programme & Kenya Vision 2030*
- *Rura Electrification Master Plan (REM 2009-2018)*
- *REA Strategic Plan 2008-2012*

No

2-5 Did the proponent consider alternatives before this request?

Yes: Please describe outline of the alternatives

- *The firste alternative was to wait for the national electricity grid to reach the the area so that the dispensary can be can be connected to power. However this is likely to take time (years) before the option can be realized thereby denying the dispensary to have some power to enable its smooth operation*
- *The second option is to use LPG to power the running of of the dispensary. However this is expensive and it is not a renewable form of energy*

No

2-6 Did the proponent have meetings with related stakeholders before this request?

Yes No

If yes, please mark the corresponding stakeholders.

Administrative body

Local residents

INGO

Others (dispensary staff)

Question 3

Is the project a new one or an on-going one? In case of an on-going one, have you received strong complaints, etc., from local residents?

New On-going(there are complaints) On-going (there are no complaints)

Others

Question 4

Name(s) of laws or guidelines:

Is Environmental Impact Assessment (EIA) including Initial Environmental Examination (IEE) required for the project according to the laws or guidelines in the host country?

Yes No

If yes, please mark corresponding items.

Required only IEE (Implemented, on going, planning)

Required both IEE and EIA (Implemented, on going, planning)

Required only EIA (Implemented, on going, planning)

Others:

Question 5

Not Applicable

In the case when EIA steps were taken, was the EIA approved by the relevant laws in the host country? If yes, please mark date of approval and the competent authority.

<input type="checkbox"/> Approved: without a supplementary condition	<input type="checkbox"/> Approved: with a supplementary condition	<input type="checkbox"/> Under appraisal
--	---	--

(Date of approval: _____ Competent authority: _____)

Not yet started an appraisal process

Others:(_____)

Question 6

If the project requires a certificate pertaining to the environment and society other than the EIA, please indicate the title of that certificate.

Already certified

Required a certificate but not yet done

Title of the certificate :(_____)

Not required

Others:

- *Ensure that you obtain the requisite approvals from the Olkejuado county Council before commencement of the projects*
- *Comply with the relevant principal laws, By-laws and guidelines issued for development of such a project within the jurisdiction of Olkejuado County Council, Ministry of Energy, Ministry of Lands, Ministry of public works and other relevant Authorities.*
- *The proponent shall ensure that all waste material and debris is collected, reused and where need be disposed off as per the Environmental Management and Coordination*

(Waste Management) Regulations 2006.

- *The proponent shall ensure strict adherence to the provisions of Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.*
- *The proponent shall ensure strict adherence to the Occupational Safety and Health Act (OSHA), 2007.*
- *The proponent shall ensure that construction workers are provided with adequate personal protection equipment (PPE) , sanitary facilities as well as adequate training*
- *Emphasis must be given to control of dust, noise, vibration, occupational hazards and provision of sanitary facilities to the construction workforce.*

Question 7

Are any of the following areas located inside or around the project site?

Yes No Not identified

If yes, please mark corresponding items.

- National park, protected area designated by the government (coast line, wetlands, reserved area for ethnic or indigenous people, cultural heritage), and areas being considered for national parks or protected areas
- Virgin forests, tropical forests
- Ecological important habitat areas (coral reef, mangrove wetland, tidal flats)
- Habitat of valuable species protected by domestic laws or international treaties
- Likely salts cumulus or soil erosion areas on a massive scale
- Remarkable desertification trend areas
- Archaeological, historical or cultural valuable areas
- Living areas of ethnic, indigenous people or nomads who have a traditional lifestyle or special socially valuable areas

Question 8

Does the project have adverse impacts on the environment and local communities?

Yes No Not identified

Reason: *Solar PV is a silent technology and does not emit green house gases*

Question 9

Please mark related environmental and social impacts, and describe their outlines.

- | | |
|--|---|
| <input type="checkbox"/> Air pollution | <input type="checkbox"/> Involuntary resettlement |
| <input type="checkbox"/> Water pollution | <input type="checkbox"/> Local economy such as employment and livelihood etc. |
| <input type="checkbox"/> Soil pollution | <input type="checkbox"/> Land use and utilization of local resources |
| <input type="checkbox"/> Waste | <input type="checkbox"/> Social institutions such as social infrastructure and local decision-making institutions |
| <input type="checkbox"/> Noise and vibration | |
| <input type="checkbox"/> Ground subsidence | |
| <input type="checkbox"/> Offensive odors | |
| <input type="checkbox"/> Geographical features | <input type="checkbox"/> Existing social infrastructures and services |
| <input type="checkbox"/> Bottom sediment | <input type="checkbox"/> The poor, indigenous of ethnic people |
| <input type="checkbox"/> Biota and ecosystem | <input type="checkbox"/> Misdistribution of benefit and damage |
| <input type="checkbox"/> Water usage | <input type="checkbox"/> Local conflict of interests |
| <input type="checkbox"/> Accidents | <input type="checkbox"/> Gender |
| <input type="checkbox"/> Global warming | <input type="checkbox"/> Children's rights |
| | <input type="checkbox"/> Cultural heritage |
| | <input type="checkbox"/> Infectious diseases such as HIV/AIDS |
| | etc. |
| | <input type="checkbox"/> Others |
| | () |

Outline of related impacts:

Construction Phase

- *Noise and vibration: there may be minimal noise and vibration during installation works of the PV system as a result of drilling and wiring works. However this will have very minimal impact and construction will be advised to be done as per the Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.*

Operational Phase

- *Since the PV is system will be used to recharge cell phones for the general public as a way of ensuring sustainability, this may lead to disturbance to patients. This can however be managed by advising that the charging room be partitioned away from the*

treatment rooms and also limiting the time for members of the public accessing the dispensary for cell phone charging.

- *On a positive note, the PV system will system will help (however small) in reducing emission of green house gases in to the atmosphere thereby reducing global warming*

Question 10

Information disclosure and meetings with stakeholders

10-1 If environmental and social considerations are required, does the proponent agree on information disclosure and meetings with stakeholders in accordance with JICA Guidelines for Environmental and Social Considerations?

Yes No

AFFECTED PERSONS

1. Mr. Mabela –Assistant chief
2. Mr. Mbaabu-Nurse In charge
3. Mrs. Mary-Assisting Nursing Officer

JICA TEAM

1. Kunio Asai-Expert, Photo Voltaic technology
2. Richard Mbiu-Assistant Expert, Photo voltaic

10-2 If no, please describe reasons below

N/A

SCREENING FORMAT

Project for the Establishment of Rural Electrification Model using Renewable Energy

Lot 1: Electrification of Public Boarding Primary School with Solar PV in Iltumtum, Narok County

Project Executing Organization:

Chief Executive Officer,
Rural Electrification Authority
P.O. Box 34585-00100
Tel: +254-020-4953000
+254-020-4953600

Fax: +254-20-2710944

E-Mail: info@rea.co.ke

Attention to,
Eng. Raphael Khazenzi

Signature: 

Date: 

Check Items

Question 1: Address of project site: Iltumtum Primary School, Narok County

Question 2: Outline of the project

- *The project involves electrification of the school and cell phone charging.*
- *This involves mounting solar panels on the rooftop of the school facility to tap solar energy which is used to charge batteries before being converted to electric energy.*

2-1 Does the project come under following sectors?

- Yes No

If yes, please mark the corresponding items.

- Mining development
- Industrial development
- Thermal power (including geothermal power)
- Hydropower, dams and reservoirs
- River/erosion control
- Power transmission and distribution lines
- Roads, railways and bridges
- Airports
- Ports and harbors
- Water supply, sewage and waste treatment
- Waste management and disposal
- Agriculture involving large-scale land-clearing or irrigation
- Forestry
- Fishery
- Tourism

2-2 Does the project include any of the following items?

- Yes No

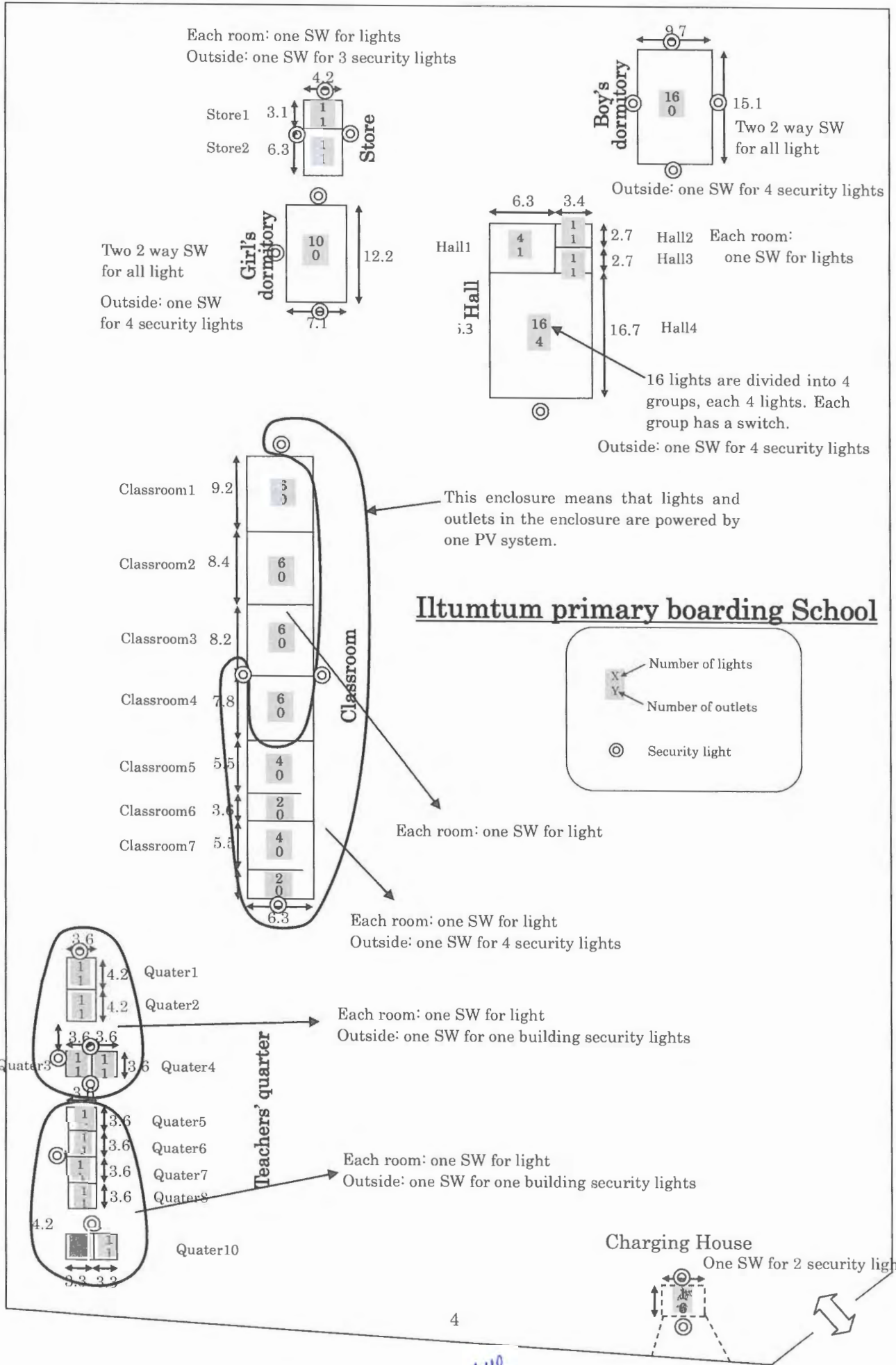
If yes, please mark following items that the project includes.

- Involuntary resettlement (scale: households persons)
- Groundwater pumping (scale: m³/year)
- Land reclamation, land development and land-clearing (scale: hectars)
- Logging (scale: hectars)

2-3 Description of the Project:
(Scale and/or Basic Information)

- *The project involves supplying the school with electricity using photo voltaic solar technology.*
- *This involves mounting solar panels on the rooftop of the school facility to tap solar energy which is used to charge batteries before being converted to electric energy.*
- *The Direct Current (DC) from the battery will be converted to Alternate Current (AC) by an inverter*
- *Fluorescent lamps will be used for lighting*
- *PV size of 4.2 KW*

(See the layout plan below)



2-4 Is the project consistent with the higher program/policy?

Yes: Please describe the higher program/policy.

- *Energy Act of 2006,*
- *Rural Electrification Programme & Kenya Vision 2030*
- *Rural Electrification Master plan (REM 2009-2018)*
- *REA Strategic Plan 2008-2012*

No

2-5 Did the proponent consider alternatives before this request?

Yes: Please describe outline of the alternatives

- *The first alternative was to wait for the national electricity grid to reach the the area so that the school can be can be connected to power. However this is likely to take time (years) before the option can be realized thereby denying the school to have some power to enable its smooth operation*
- *The second option is to use LPG to power the running of of the school. However this is expensive and it is not a renewable form of energy*

No

2-6 Did the proponent have meetings with related stakeholders before this request?

Yes No

If yes, please mark the corresponding stakeholders.

- Administrative body
- Local residents
- NGO
- Others (school staff)

Question 3

Is the project a new one or an on-going one? In case of an on-going one, have you received strong complaints, etc., from local residents?

- New On-going(there are complaints) On-going (there are no complaints)
- Others

Question 4 Name(s) of laws or guidelines:

Is Environmental Impact Assessment (EIA) including Initial Environmental Examination (IEE) required for the project according to the laws or guidelines in the host country?

Yes No

If yes, please mark corresponding items.

- Required only IEE (Implemented, on going, planning)
- Required both IEE and EIA (Implemented, on going, planning)
- Required only EIA (Implemented, on going, planning)
- Others:

Question 5 (Not Applicable)

In the case when EIA steps were taken, was the EIA approved by the relevant laws in the host country? If yes, please mark date of approval and the competent authority.

<input type="checkbox"/> Approved: without a supplementary condition	<input type="checkbox"/> Approved: with a supplementary condition	<input type="checkbox"/> Under appraisal
--	---	--

(Date of approval:

Competent authority:

- Not yet started an appraisal process
- Others:(

Question 6

If the project requires a certificate pertaining to the environment and society other than the EIA, please indicate the title of that certificate.

- Already certified Required a certificate but not yet done

Title of the certificate:

Not required

Others:

- *Ensure that you obtain the requisite approvals from the Narok county Council before commencement of the projects*
- *Comply with the relevant principal laws, By-laws and guidelines issued for development of such a project within the jurisdiction of Narok County Council, Ministry of Energy, Ministry of Lands, Ministry of public works and other relevant Authorities.*

- *The proponent shall ensure that all waste material and debris is collected, reused and where need be disposed off as per the Environmental Management and Coordination (Waste Management) Regulations 2006.*
- *The proponent shall ensure strict adherence to the provisions of Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.*
- *The proponent shall ensure strict adherence to the Occupational Safety and Health Act (OSHA), 2007.*
- *The proponent shall ensure that construction workers are provided with adequate personal protection equipment (PPE) , sanitary facilities as well as adequate training*
- *Emphasis must be given to control of dust, noise, vibration, occupational hazards and provision of sanitary facilities to the construction workforce.*

Question 7

Are any of the following areas located inside or around the project site?

Yes No Not identified

If yes, please mark corresponding items.

National park, protected area designated by the government (coast line, wetlands, reserved area for ethnic or indigenous people, cultural heritage), and areas being considered for national parks or protected areas

Virgin forests, tropical forests

Ecological important habitat areas (coral reef, mangrove wetland, tidal flats)

Habitat of valuable species protected by domestic laws or international treaties

Likely salts cumulus or soil erosion areas on a massive scale

Remarkable desertification trend areas

Archaeological, historical or cultural valuable areas

Living areas of ethnic, indigenous people or nomads who have a traditional lifestyle or special socially valuable areas

Question 8

Does the project have adverse impacts on the environment and local communities?

Yes No Not identified

Reason: *Solar PV is a silent technology and does not emit green house gases*

Question 9

Please mark related environmental and social impacts, and describe their outlines.

- | | |
|--|---|
| <input type="checkbox"/> Air pollution | <input type="checkbox"/> Involuntary resettlement |
| <input type="checkbox"/> Water pollution | <input type="checkbox"/> Local economy such as employment and livelihood etc. |
| <input type="checkbox"/> Soil pollution | <input type="checkbox"/> Land use and utilization of local resources |
| <input type="checkbox"/> Waste | <input type="checkbox"/> Social institutions such as social infrastructure and local decision-making institutions |
| <input type="checkbox"/> Noise and vibration | |
| <input type="checkbox"/> Ground subsidence | |
| <input type="checkbox"/> Offensive odors | |
| <input type="checkbox"/> Geographical features | <input type="checkbox"/> Existing social infrastructures and services |
| <input type="checkbox"/> Bottom sediment | <input type="checkbox"/> The poor, indigenous of ethnic people |
| <input type="checkbox"/> Biota and ecosystem | <input type="checkbox"/> Misdistribution of benefit and damage |
| <input type="checkbox"/> Water usage | <input type="checkbox"/> Local conflict of interests |
| <input type="checkbox"/> Accidents | <input type="checkbox"/> Gender |
| <input type="checkbox"/> Global warming | <input type="checkbox"/> Children's rights |
| | <input type="checkbox"/> Cultural heritage |
| | <input type="checkbox"/> Infectious diseases such as HIV/AIDS |
| | etc. |
| | <input type="checkbox"/> Others |
| | () |

Outline of related impacts:

Construction Phase

- *Noise and vibration: there may be minimal noise and vibration during installation works of the PV system as a result of drilling and wiring works. However this will have very minimal impact and construction will be advised to be done as per the Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.*

Operational Phase

- *Since the PV is system will be used to recharge cell phones for the general public as a way of ensuring sustainability, this may lead to disturbance to pupils. This can however be managed by advising that the charging room to be sited close to the gate and around 200 metres from the classrooms where members of the public can access*

with minimal disturbance to pupils' learning process. limiting the time for members of the public accessing the school for cell phone charging is also advised

- *On a positive note, the PV system will system will help (however small) in reducing emission of green house gases in to the atmosphere thereby reducing global warming*

Question 10

Information disclosure and meetings with stakeholders

10-1 If environmental and social considerations are required, does the proponent agree on information disclosure and meetings with stakeholders in accordance with JICA Guidelines for Environmental and Social Considerations?

Yes No

A meeting was held between JICA Expert team and the local persons likely to be affected by the project. Participants were:

AFFECTED PERSONS

1. Stephen Sankok –Head teacher
2. Mr. Lempaka-Area Chief
3. John Malit-Community leader
4. Marik Kingetu-Community member
5. Wilson Kendaki-Community member
6. Mary Soit-Community member
7. Vincent Kedoki-Community member
8. Gladys Normejole-Community member
9. Susan Nabora-Community member

JICA TEAM

1. Kunio Asai-Expert, Photo Voltaic technology
2. Richard Mbiu-Assistant Expert, Photo voltaic

10-2 If no, please describe reasons below

N/A

N/A

SCREENING FORMAT

Project for the Establishment of Rural Electrification Model using Renewable Energy

Lot 1: Electrification of Health Institution with Solar PV in Meto, Kajiado County

Project Executing Organization:

Chief Executive Officer,

Rural Electrification Authority

P.O. Box 34585-00100

Tel: +254-020-4953000

+254-020-4953600

Fax: +254-20-2710944

E-Mail: info@rea.co.ke

Attention to,

Eng. Raphael Khazenzi

Signature:



Date:



Check Items

Question 1 Address of a project site: Meto Dispensary, Kajiado County

Question 2 Outline of the project

- *The project involves electrification of the dispensary and cell phone charging.*
- *This involves mounting solar panels on the rooftop of the dispensary facility to tap solar energy which is used to charge batteries and then to the inverter which converts the Direct Current (DC) to Alternating Current (AC) which will eventually power the lighting and mobile charging system.*

2-1 Does the project come under following sectors?

- Yes No

If yes, please mark the corresponding items.

- Mining development
- Industrial development
- Thermal power (including geothermal power)
- Hydropower, dams and reservoirs
- River/erosion control
- Power transmission and distribution lines
- Roads, railways and bridges
- Airports
- Ports and harbors
- Water supply, sewage and waste treatment
- Waste management and disposal
- Agriculture involving large-scale land-clearing or irrigation
- Forestry
- Fishery
- Tourism

2-2 Does the project include any of the following items?

- Yes No

If yes, please mark following items that the project includes.

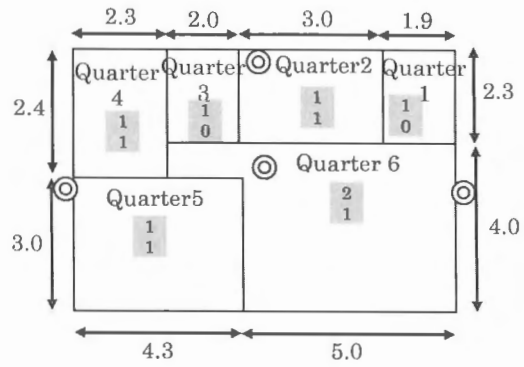
- Involuntary resettlement (scale: households persons)

- Groundwater pumping (scale: m³/year)
- Land reclamation, land development and land-clearing (scale: hectors)
- Logging (scale: hectors)

2-3 Description of the Project:
(Scale and/or Basic Information)

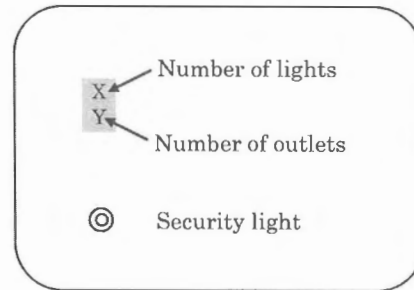
- *The project involves supplying the dispensary with electricity using photo voltaic solar technology.*
- *This involves mounting solar panels on the rooftop of the dispensary facility to tap solar energy which is used to charge batteries before being converted to electric energy.*
- *The Direct Current (DC) from the battery will be converted to Alternate Current (AC) by an inverter*
- *Fluorescent lamps will be used for lighting inside the premises while light emitting diode (LED) lamps will be used outside of the premises for security lighting*
- *PV size of 1.4KW*

(See the layout plan below)

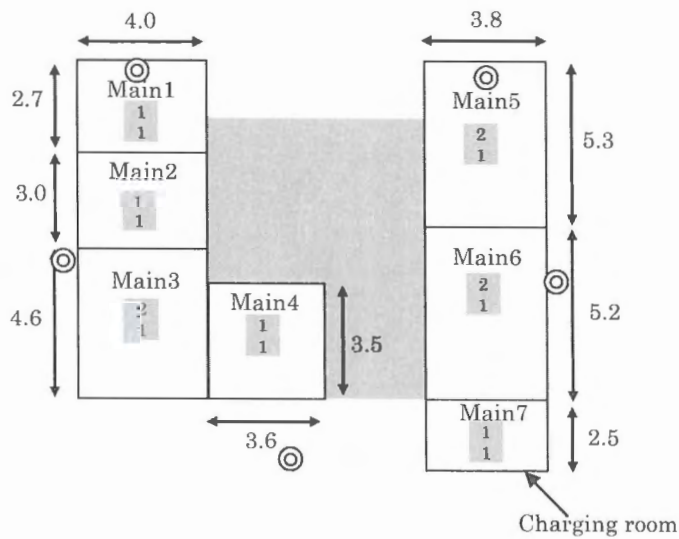


Staff quarter Each room: one SW for lights
 Outside: one SW for 4 security lights

Meto dispensary



Main building Each room: one SW for lights
 Outside: one SW for 5 security lights



Mu

2-4 Is the project consistent with the higher program/policy?

Yes: Please describe the higher program/policy.

- *Energy Act of 2006,*
- *Rural Electrification Programme & Kenya Vision 2030*
- *Rural Electrification Master plan (REM 2009-2018)*
- *REA Strategic Plan (2008-2012)*

No

2-5 Did the proponent consider alternatives before this request?

Yes: Please describe outline of the alternatives

- *The first alternative was to wait for the national electricity grid to reach the the area so that the dispensary can be can be connected to power. However this is likely to take time (years) before the option can be realized thereby denying the dispensary to have some power to enable its smooth operation*
- *The second option is to use LPG to power the running of of the dispensary. However this is expensive and it is not a renewable form of energy*

No

2-6 Did the proponent have meetings with related stakeholders before this request?

Yes No

If yes, please mark the corresponding stakeholders.

Administrative body

Local residents

NGO

Others (dispensary staff)

Question 3

Is the project a new one or an on-going one? In case of an on-going one, have you received strong complaints, etc., from local residents?

New On-going(there are complaints) On-going (there are no complaints)

Others

Question 4 Name(s) of laws or guidelines:

Is Environmental Impact Assessment (EIA) including Initial Environmental Examination (IEE) required for the project according to the laws or guidelines in the host country?

Yes No

If yes, please mark corresponding items.

- Required only IEE (Implemented, on going, planning)
- Required both IEE and EIA (Implemented, on going, planning)
- Required only EIA (Implemented, on going, planning)
- Others:

Question 5

In the case when EIA steps were taken, was the EIA approved by the relevant laws in the host country? If yes, please mark date of approval and the competent authority.

<input type="checkbox"/> Approved: without a supplementary condition	<input type="checkbox"/> Approved: with a supplementary condition	<input type="checkbox"/> Under appraisal
(Date of approval:	Competent authority:)

- Not yet started an appraisal process
- Others:()

Question 6

If the project requires a certificate pertaining to the environment and society other than the EIA, please indicate the title of that certificate.

Already certified Required a certificate but not yet done
 Title of the certificate :()

- Not required
- Others:

➤ *Ensure that you obtain the requisite approvals from the Olkejuado county Council before commencement of the projects*

- *Comply with the relevant principal laws, By-laws and guidelines issued for development of such a project within the jurisdiction of Olkejuado County Council, Ministry of Energy, Ministry of Lands, Ministry of public works and other relevant Authorities.*
- *The proponent shall ensure that all waste material and debris is collected, reused and where need be disposed off as per the Environmental Management and Coordination (Waste Management) Regulations 2006.*
- *The proponent shall ensure strict adherence to the provisions of Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.*
- *The proponent shall ensure strict adherence to the Occupational Safety and Health Act (OSHA), 2007.*
- *The proponent shall ensure that construction workers are provided with adequate personal protection equipment (PPE) , sanitary facilities as well as adequate training*
- *Emphasis must be given to control of dust, noise, vibration, occupational hazards and provision of sanitary facilities to the construction workforce.*

Question 7

Are any of the following areas located inside or around the project site?

Yes No Not identified

If yes, please mark corresponding items.

- National park, protected area designated by the government (coast line, wetlands, reserved area for ethnic or indigenous people, cultural heritage), and areas being considered for national parks or protected areas
- Virgin forests, tropical forests
- Ecological important habitat areas (coral reef, mangrove wetland, tidal flats)
- Habitat of valuable species protected by domestic laws or international treaties
- Likely salts cumulus or soil erosion areas on a massive scale
- Remarkable desertification trend areas
- Archaeological, historical or cultural valuable areas
- Living areas of ethnic, indigenous people or nomads who have a traditional lifestyle or special socially valuable areas

Question 8

Does the project have adverse impacts on the environment and local communities?

Yes No Not identified

Reason: *Solar PV is a silent technology and does not emit green house gases*

Question 9

Please mark related environmental and social impacts, and describe their outlines.

- | | |
|--|---|
| <input type="checkbox"/> Air pollution | <input type="checkbox"/> Involuntary resettlement |
| <input type="checkbox"/> Water pollution | <input type="checkbox"/> Local economy such as employment and livelihood etc. |
| <input type="checkbox"/> Soil pollution | <input type="checkbox"/> Land use and utilization of local resources |
| <input type="checkbox"/> Waste | <input type="checkbox"/> Social institutions such as social infrastructure and local decision-making institutions |
| <input type="checkbox"/> Noise and vibration | |
| <input type="checkbox"/> Ground subsidence | |
| <input type="checkbox"/> Offensive odors | |
| <input type="checkbox"/> Geographical features | <input type="checkbox"/> Existing social infrastructures and services |
| <input type="checkbox"/> Bottom sediment | <input type="checkbox"/> The poor, indigenous of ethnic people |
| <input type="checkbox"/> Biota and ecosystem | <input type="checkbox"/> Misdistribution of benefit and damage |
| <input type="checkbox"/> Water usage | <input type="checkbox"/> Local conflict of interests |
| <input type="checkbox"/> Accidents | <input type="checkbox"/> Gender |
| <input type="checkbox"/> Global warming | <input type="checkbox"/> Children's rights |
| | <input type="checkbox"/> Cultural heritage |
| | <input type="checkbox"/> Infectious diseases such as HIV/AIDS |
| | etc. |
| | <input type="checkbox"/> Others |
| | () |

Outline of related impacts:

Construction Phase

- *Since the PV is system will be used to recharge cell phones for the general public as a way of ensuring sustainability, this may lead to disturbance to patients. This can however be managed by advising that the charging room be partitioned away from the treatment rooms and also limiting the time for members of the public accessing the dispensary for cell phone charging*
- *On a positive note, the PV system will system will help (however small) in reducing emission of green house gases in to the atmosphere thereby reducing global warming*

Question 10

Information disclosure and meetings with stakeholders

10-1 If environmental and social considerations are required, does the proponent agree on information disclosure and meetings with stakeholders in accordance with JICA Guidelines for Environmental and Social Considerations?

Yes No

A meeting was held between JICA Expert team and the local persons likely to be affected by the project. Participants were:

AFFECTED PERSONS

1. Rev. Moses Meeli-Dispensary committee Member
2. Alex Deley- Nurse In charge
3. Patrick Achuka-Nurse

JICA TEAM

1. Kunio Asai-Expert, Photo Voltaic technology
2. Richard Mbiu-Assistant Expert, Photo Voltaic technology

10-2 If no, please describe reasons below

N/A

SCREENING FORMAT

Project for the Establishment of Rural Electrification Model using Renewable Energy

Lot 1: Electrification of Public Boarding Primary School with Solar PV in Olemoncho, Narok County

Project Executing Organization:

Chief Executive Officer,
Rural Electrification Authority
P.O. Box 34585-00100
Tel: +254-020-4953000
+254-020-4953600

Fax: +254-20-2710944

E-Mail: info@rea.co.ke

Attention to,
Eng. Raphael Khazenzi

Signature:



Date:

28/11/12

Check Items

Question 1: Address of project site: Olemomncho Primary School, Narok County

Question 2: Outline of the project

- *The project involves electrification of the school and cell phone charging.*
- *This involves mounting solar panels on the rooftop of the school facility to tap solar energy which is used to charge batteries before being converted to electric energy.*

2-1 Does the project come under following sectors?

- Yes No

If yes, please mark the corresponding items.

- Mining development
- Industrial development
- Thermal power (including geothermal power)
- Hydropower, dams and reservoirs
- River/erosion control
- Power transmission and distribution lines
- Roads, railways and bridges
- Airports
- Ports and harbors
- Water supply, sewage and waste treatment
- Waste management and disposal
- Agriculture involving large-scale land-clearing or irrigation
- Forestry
- Fishery
- Tourism

2-2 Does the project include any of the following items?

- Yes No

If yes, please mark following items that the project includes.

- Involuntary resettlement (scale: households persons)
- Groundwater pumping (scale: m³/year)
- Land reclamation, land development and land-clearing (scale: hectors)
- Logging (scale: hectors)

2-3 Description of the Project:
(Scale and/or Basic Information)

- *The project involves supplying the school with electricity using photo voltaic solar technology.*
- *This involves mounting solar panels on the rooftop of the school facility to tap solar energy which is used to charge batteries before being converted to electric energy.*
- *The Direct Current (DC) from the battery will be converted to Alternate Current (AC) by an inverter*
- *Fluorescent lamps will be used for lighting*
- *PV size of 3.0 KW*

(See the layout plan below)

MU

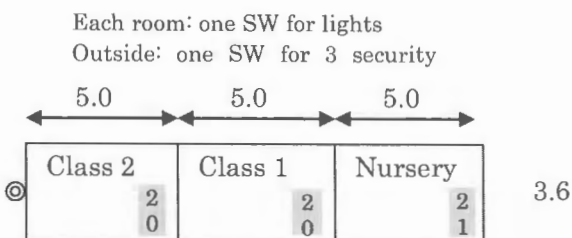
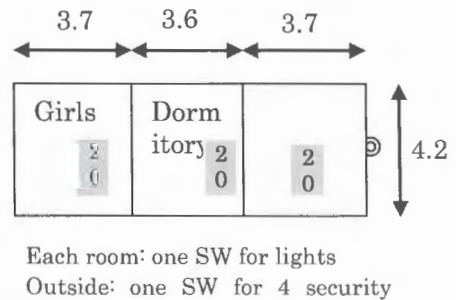
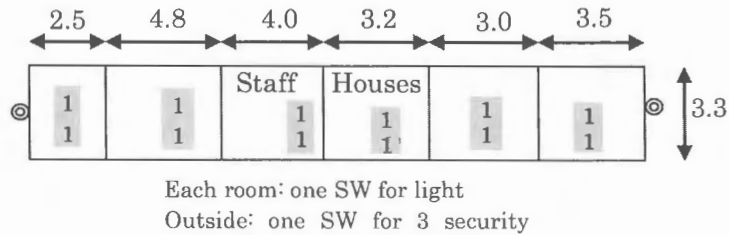
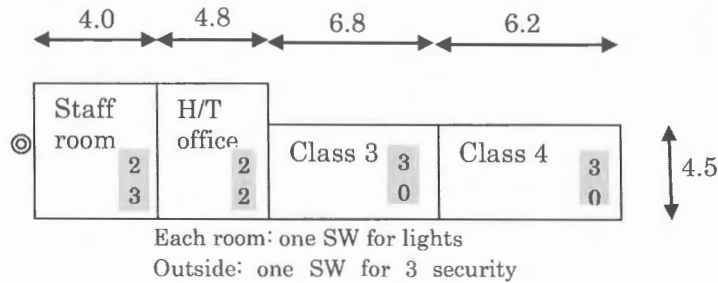
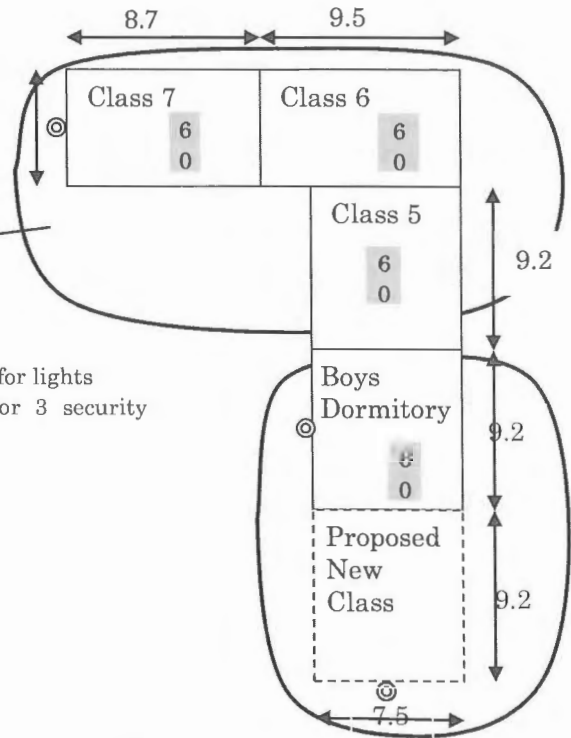
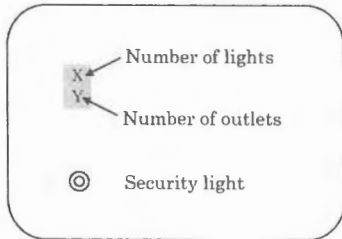
Charging house



Each room: one SW for lights
Outside: one SW for 2 security

Each room: one SW for lights
Outside: one SW for 3 security

Olemoncho Primary School



2-4 Is the project consistent with the higher program/policy?

Yes: Please describe the higher program/policy.

- *Energy Act of 2006,*
- *Rural Electrification Programme & Kenya Vision 2030*
- *Rural Electrification Master plan (REM 2009-2018)*
- *REA Strategic Plan (2008-2012)*

No

2-5 Did the proponent consider alternatives before this request?

Yes: Please describe outline of the alternatives

- *The first alternative will be to wait for the national electricity grid to reach the the area so that the school can be can be connected to power. However this is likely to take time (years) before the option can be realized thereby denying the school to have some power to enable its smooth operation*
- *The second option is to use LPG to power the running of of the school. However this is expensive and it is not a renewable form of energy*

No

2-6 Did the proponent have meetings with related stakeholders before this request?

Yes No

If yes, please mark the corresponding stakeholders.

Administrative body

Local residents

NGO

Others (school staff)

Question 3

Is the project a new one or an on-going one? In case of an on-going one, have you received strong complaints, etc., from local residents?

New On-going (there are complaints) On-going (there are no complaints)

Others

Question 4 Name(s) of laws or guidelines:

Is Environmental Impact Assessment (EIA) including Initial Environmental Examination (IEE) required for the project according to the laws or guidelines in the host country?

Yes No

If yes, please mark corresponding items.

Required only IEE (Implemented, on going, planning)

Required both IEE and EIA (Implemented, on going, planning)

Required only EIA (Implemented, on going, planning)

Others:

Question 5 (Not Applicable)

In the case when EIA steps were taken, was the EIA approved by the relevant laws in the host country? If yes, please mark date of approval and the competent authority.

<input type="checkbox"/> Approved: without a supplementary condition	<input type="checkbox"/> Approved: with a supplementary condition	<input type="checkbox"/> Under appraisal
--	---	--

(Date of approval:

Competent authority:

Not yet started an appraisal process

Others:(

Question 6

If the project requires a certificate pertaining to the environment and society other than the EIA, please indicate the title of that certificate.

Already certified

Required a certificate but not yet done

Title of the certificate:

Not required

Others:

- *Ensure that you obtain the requisite approvals from the Olkejuado county Council before commencement of the projects*
- *Comply with the relevant principal laws, By-laws and guidelines issued for development of such a project within the jurisdiction of Olkejuado County Council, Ministry of Energy, Ministry of Lands, Ministry of public works and other relevant Authorities.*

- *The proponent shall ensure that all waste material and debris is collected, reused and where need be disposed off as per the Environmental Management and Coordination (Waste Management) Regulations 2006.*
- *The proponent shall ensure strict adherence to the provisions of Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.*
- *The proponent shall ensure strict adherence to the Occupational Safety and Health Act (OSHA), 2007.*
- *The proponent shall ensure that construction workers are provided with adequate personal protection equipment (PPE) , sanitary facilities as well as adequate training*
- *Emphasis must be given to control of dust, noise, vibration, occupational hazards and provision of sanitary facilities to the construction workforce.*

Question 7

Are any of the following areas located inside or around the project site?

- Yes No Not identified

If yes, please mark corresponding items.

- National park, protected area designated by the government (coast line, wetlands, reserved area for ethnic or indigenous people, cultural heritage), and areas being considered for national parks or protected areas
- Virgin forests, tropical forests
- Ecological important habitat areas (coral reef, mangrove wetland, tidal flats)
- Habitat of valuable species protected by domestic laws or international treaties
- Likely salts cumulus or soil erosion areas on a massive scale
- Remarkable desertification trend areas
- Archaeological, historical or cultural valuable areas
- Living areas of ethnic, indigenous people or nomads who have a traditional lifestyle or special socially valuable areas

Question 8

Does the project have adverse impacts on the environment and local communities?

- Yes No Not identified

Reason: *Solar PV is a silent technology and does not emit green house gases*

Question 9

Please mark related environmental and social impacts, and describe their outlines.

- | | |
|--|---|
| <input type="checkbox"/> Air pollution | <input type="checkbox"/> Involuntary resettlement |
| <input type="checkbox"/> Water pollution | <input type="checkbox"/> Local economy such as employment and livelihood etc. |
| <input type="checkbox"/> Soil pollution | <input type="checkbox"/> Land use and utilization of local resources |
| <input type="checkbox"/> Waste | <input type="checkbox"/> Social institutions such as social infrastructure and local decision-making institutions |
| <input type="checkbox"/> Noise and vibration | |
| <input type="checkbox"/> Ground subsidence | |
| <input type="checkbox"/> Offensive odors | |
| <input type="checkbox"/> Geographical features | <input type="checkbox"/> Existing social infrastructures and services |
| <input type="checkbox"/> Bottom sediment | <input type="checkbox"/> The poor, indigenous of ethnic people |
| <input type="checkbox"/> Biota and ecosystem | <input type="checkbox"/> Misdistribution of benefit and damage |
| <input type="checkbox"/> Water usage | <input type="checkbox"/> Local conflict of interests |
| <input type="checkbox"/> Accidents | <input type="checkbox"/> Gender |
| <input type="checkbox"/> Global warming | <input type="checkbox"/> Children's rights |
| | <input type="checkbox"/> Cultural heritage |
| | <input type="checkbox"/> Infectious diseases such as HIV/AIDS |
| | etc. |
| | <input type="checkbox"/> Others |
| | () |

Outline of related impacts:

Construction Phase

- *Noise and vibration: there may be minimal noise and vibration during installation works of the PV system as a result of drilling and wiring works. However this will have very minimal impact and construction will be advised to be done as per the Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.*

Operational Phase

- *Since the PV is system will be used to recharge cell phones for the general public as a way of ensuring sustainability, this may lead to disturbance to pupils. This can however be managed by advising that the charging room be partitioned away from the class rooms and also limiting the time for members of the public accessing the school*

for cell phone charging

- *On a positive note, the PV system will help (however small) in reducing emission of green house gases in to the atmosphere thereby reducing global warming*

Question 10

Information disclosure and meetings with stakeholders

10-1 If environmental and social considerations are required, does the proponent agree on information disclosure and meetings with stakeholders in accordance with JICA Guidelines for Environmental and Social Considerations?

Yes No

A meeting was held between JICA Expert team and the local persons likely to be affected by the project. Participants were:

AFFECTED PERSONS

1. Wilson Nkoyo-Head teacher, Olemoncho Primary school

JICA TEAM

1. Kunio Asai-Expert, Photo Voltaic technology
2. Richard Mbiu-Assistant Expert, Photo voltaic

10-2 If no, please describe reasons below

N/A

SCREENING FORMAT

Project for the Establishment of Rural Electrification Model using Renewable Energy

Lot 1: Electrification of Health Institution with Solar PV in Olkinyei, Narok County

Project Executing Organization:

Chief Executive Officer,

Rural Electrification Authority

P.O. Box 34585-00100

Tel: +254-020-4953000

+254-020-4953600

Fax: +254-20-2710944

E-Mail: info@rea.co.ke

Attention to,

Eng. Raphael Khazenzi

Signature:



Date:

28/11/12

Check Items

Question 1: Address of project site: Olkinyei Dispensary, Narok County

Question 2: Outline of the project

- *The project involves electrification of the dispensary and cell phone charging.*
- *This involves mounting solar panels on the rooftop of the dispensary facility to tap solar energy which is used to charge batteries before being converted to electric energy.*

2-1 Does the project come under following sectors?

- Yes No

If yes, please mark the corresponding items.

- Mining development
- Industrial development
- Thermal power (including geothermal power)
- Hydropower, dams and reservoirs
- River/erosion control
- Power transmission and distribution lines
- Roads, railways and bridges
- Airports
- Ports and harbors
- Water supply, sewage and waste treatment
- Waste management and disposal
- Agriculture involving large-scale land-clearing or irrigation
- Forestry
- Fishery
- Tourism

2-2 Does the project include any of the following items?

- Yes No

If yes, please mark following items that the project includes.

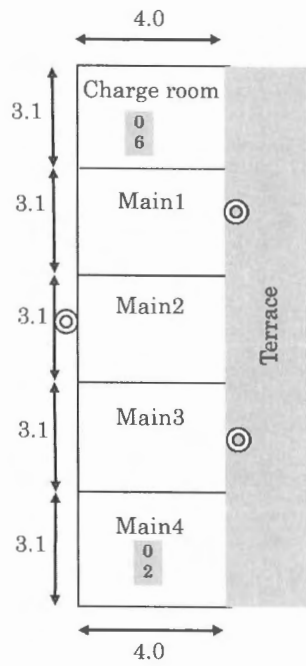
- Involuntary resettlement (scale: households persons)
- Groundwater pumping (scale: m³/year)
- Land reclamation, land development and land-clearing (scale: hectors)
- Logging (scale: hectors)

2-3 Description of the Project:
(Scale and/or Basic Information)

- *The project involves supplying the dispensary with electricity using photo voltaic solar technology.*
- *This involves mounting solar panels on the rooftop of the dispensary facility to tap solar energy which is used to charge batteries before being converted to electric energy.*
- *The Direct Current (DC) from the battery will be converted to Alternate Current (AC) by an inverter*
- *Fluorescent lamps will be used for lighting*
- *PV size of 1.1KW*

(See the layout plan below)

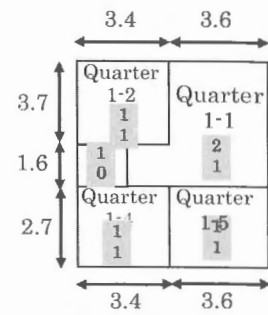
mu



Main building

Outside: one SW for 3 security lights

Wiring of existing system shall be refurbished.

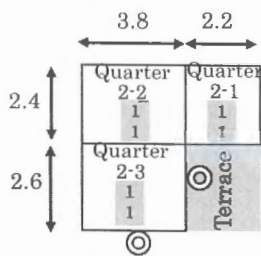
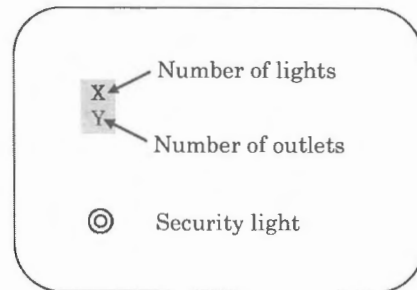


Staff quarter 1

Each room: one SW for light

Outside: one SW for 2 security lights

Olkinyei dispensary



Staff quarter 2

Each room: one SW for light

Outside: one SW for 2 security lights

MU

2-4 Is the project consistent with the higher program/policy?

Yes: Please describe the higher program/policy.

- *Energy Act of 2006,*
- *Rural Electrification Programme & Kenya Vision 2030*
- *Rural Electrification Master plan (REM 2009-2018)*
- *REA Strategic Plan 2008-2012*

No

2-5 Did the proponent consider alternatives before this request?

Yes: Please describe outline of the alternatives

- *The first alternative would be to wait for the national electricity grid to reach the the area so that the dispensary can be can be connected to power. However this is likely to take time (years) before the option can be realized thereby denying the dispensary to have some power to enable its smooth operation*
- *The second option is to use LPG to power the running of of the dispensary. However this is expensive and it is not a renewable form of energy*

No

2-6 Did the proponent have meetings with related stakeholders before this request?

Yes No

If yes, please mark the corresponding stakeholders.

Administrative body

Local residents

NGO

Others (dispensary staff)

Question 3

Is the project a new one or an on-going one? In case of an on-going one, have you received strong complaints, etc., from local residents?

New On-going(there are complaints) On-going (there are no complaints)

Others

Question 4 Name(s) of laws or guidelines:

Is Environmental Impact Assessment (EIA) including Initial Environmental Examination (IEE) required for the project according to the laws or guidelines in the host country?

Yes No

If yes, please mark corresponding items.

Required only IEE (Implemented, on going, planning)

Required both IEE and EIA (Implemented, on going, planning)

Required only EIA (Implemented, on going, planning)

Others:

Question 5 (Not Applicable)

In the case when EIA steps were taken, was the EIA approved by the relevant laws in the host country? If yes, please mark date of approval and the competent authority.

<input type="checkbox"/> Approved: without a supplementary condition	<input type="checkbox"/> Approved: with a supplementary condition	<input type="checkbox"/> Under appraisal
--	---	--

(Date of approval:

Competent authority:

Not yet started an appraisal process

Others:(

Question 6

If the project requires a certificate pertaining to the environment and society other than the EIA, please indicate the title of that certificate.

Already certified

Required a certificate but not yet done

Title of the certificate:

Not required

Others:

- *Ensure that you obtain the requisite approvals from the Olkejuado county Council before commencement of the projects*
- *Comply with the relevant principal laws, By-laws and guidelines issued for development of such a project within the jurisdiction of Olkejuado County Council, Ministry of Energy, Ministry of Lands, Ministry of public works and other relevant Authorities.*

- *The proponent shall ensure that all waste material and debris is collected, reused and where need be disposed off as per the Environmental Management and Coordination (Waste Management) Regulations 2006.*
- *The proponent shall ensure strict adherence to the provisions of Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.*
- *The proponent shall ensure strict adherence to the Occupational Safety and Health Act (OSHA), 2007.*
- *The proponent shall ensure that construction workers are provided with adequate personal protection equipment (PPE) , sanitary facilities as well as adequate training*
- *Emphasis must be given to control of dust, noise, vibration, occupational hazards and provision of sanitary facilities to the construction workforce.*

Question 7

Are any of the following areas located inside or around the project site?

Yes No Not identified

If yes, please mark corresponding items.

- National park, protected area designated by the government (coast line, wetlands, reserved area for ethnic or indigenous people, cultural heritage), and areas being considered for national parks or protected areas
- Virgin forests, tropical forests
- Ecological important habitat areas (coral reef, mangrove wetland, tidal flats)
- Habitat of valuable species protected by domestic laws or international treaties
- Likely salts cumulus or soil erosion areas on a massive scale
- Remarkable desertification trend areas
- Archaeological, historical or cultural valuable areas
- Living areas of ethnic, indigenous people or nomads who have a traditional lifestyle or special socially valuable areas

Question 8

Does the project have adverse impacts on the environment and local communities?

Yes No Not identified

Reason: *Solar PV is a silent technology and does not emit green house gases*

Question 9

Please mark related environmental and social impacts, and describe their outlines.

- | | |
|--|---|
| <input type="checkbox"/> Air pollution | <input type="checkbox"/> Involuntary resettlement |
| <input type="checkbox"/> Water pollution | <input type="checkbox"/> Local economy such as employment and livelihood etc. |
| <input type="checkbox"/> Soil pollution | <input type="checkbox"/> Land use and utilization of local resources |
| <input type="checkbox"/> Waste | <input type="checkbox"/> Social institutions such as social infrastructure and local decision-making institutions |
| <input type="checkbox"/> Noise and vibration | |
| <input type="checkbox"/> Ground subsidence | |
| <input type="checkbox"/> Offensive odors | |
| <input type="checkbox"/> Geographical features | <input type="checkbox"/> Existing social infrastructures and services |
| <input type="checkbox"/> Bottom sediment | <input type="checkbox"/> The poor, indigenous of ethnic people |
| <input type="checkbox"/> Biota and ecosystem | <input type="checkbox"/> Misdistribution of benefit and damage |
| <input type="checkbox"/> Water usage | <input type="checkbox"/> Local conflict of interests |
| <input type="checkbox"/> Accidents | <input type="checkbox"/> Gender |
| <input type="checkbox"/> Global warming | <input type="checkbox"/> Children's rights |
| | <input type="checkbox"/> Cultural heritage |
| | <input type="checkbox"/> Infectious diseases such as HIV/AIDS |
| | etc. |
| | <input type="checkbox"/> Others |
| | () |

Outline of related impacts:

Construction Phase

- *Noise and vibration: there may be minimal noise and vibration during installation works of the PV system as a result of drilling and wiring works. However this will have very minimal impact and construction will be advised to be done as per the Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.*

Operational Phase

- *Since the PV is system will be used to recharge cell phones for the general public as a way of ensuring sustainability, this may lead to disturbance to patients. This can however be managed by advising that the charging room be partitioned away from the treatment rooms and also limiting the time for members of the public accessing the*



dispensary for cell phone charging

- *On a positive note, the PV system will help (however small) in reducing emission of green house gases in to the atmosphere thereby reducing global warming*

Question 10

Information disclosure and meetings with stakeholders

10-1 If environmental and social considerations are required, does the proponent agree on information disclosure and meetings with stakeholders in accordance with JICA Guidelines for Environmental and Social Considerations?

Yes No

A meeting was held between JICA Expert team and the local persons likely to be affected by the project. Participants were:

AFFECTED PERSONS

1. Thomas Njeru-Clinical Officer in charge of the dispensary
2. Bosco Kiptanui-Laboratory technician
3. Joram Letelo-Community Health worker
4. David Letoluo-Area chief
5. Moses Mohonga-Community member
6. Santo Letoluo- Community member
7. Kikanae Letoluo- Community member
8. John Mohonga- Community member
9. Gabriel Minis -Community member
10. Francis Rakwa- Community member

JICA TEAM

1. Kunio Asai-Expert, Photo Voltaic technology
2. Richard Mbiu-Assistant Expert, Photo voltaic

10-2 If no, please describe reasons below

N/A

Angata Nanyukie, Samburu County

Appendix 3. Screening Format

Name of Proposed Project:

Project for the Establishment of Rural Electrification Model using Renewable Energy

Lot 1: Electrification of Public Boarding Primary School with Solar PV in Angata Nanyukie, Samburu County

Project Executing Organization:

Name, Post, Organization and Contact Point of a Responsible Officer

Chief Executive Officer,
Rural Electrification Authority

P.O. Box 34585-00100

Tel: +254-020-4953000

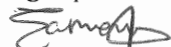
+254-020-4953600

Fax: +254-20-2710944

E-Mail: info@rea.co.ke

Attention to,

Eng. Ephantus Kamweru



Signature:

Date: 24/3/2014

Angata Nanyukie, Samburu County

Check Items

Question 1: Address of project site: Angata Nanyukie Dispensary, Samburu County

Question 2: Outline of the project

- The project involves electrification of the school and cell phone charging.
- This involves mounting solar panels on the rooftop of the school facility to tap solar energy which is used to charge batteries before being converted to electric energy.

2-1 Does the project come under following sectors?

Yes No

If yes, please mark the corresponding items.


- Mining development
- Industrial development
- Thermal power (including geothermal power)
- Hydropower, dams and reservoirs
- River/erosion control
- Power transmission and distribution lines
- Roads, railways and bridges
- Airports
- Ports and harbors
- Water supply, sewage and waste treatment
- Waste management and disposal
- Agriculture involving large-scale land-clearing or irrigation
- Forestry
- Fishery
- Tourism

2-2 Does the project include any of the following items?

Yes No

If yes, please mark following items that the project includes.

- Involuntary resettlement (scale: households persons)
- Groundwater pumping (scale: m³/year)
- Land reclamation, land development and land-clearing (scale: hectares)
- Logging (scale: hectares)

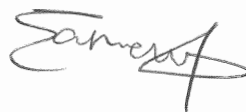


Angata Nanyukie, Samburu County

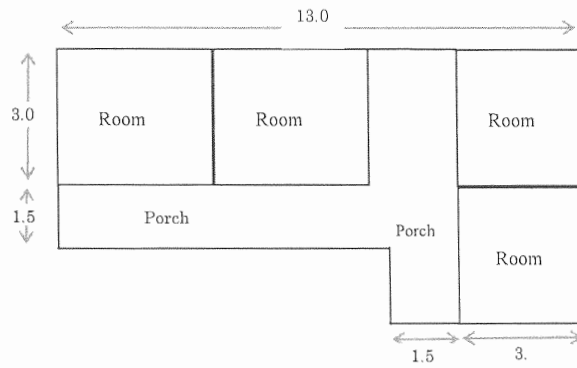
2-3 Description of the Project:
(Scale and/or Basic Information)

- The project involves supplying the school with electricity using photo voltaic solar technology.
- This involves mounting solar panels on the rooftop of the school facility to tap solar energy which is used to charge batteries before being converted to electric energy.
- The Direct Current (DC) from the battery will be converted to Alternate Current (AC) by an inverter.
- Fluorescent lamps will be used for lighting.
- PV size of 0.72 KW.

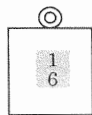
(See the layout plan below)

A handwritten signature in black ink, appearing to read 'James' followed by a stylized flourish.

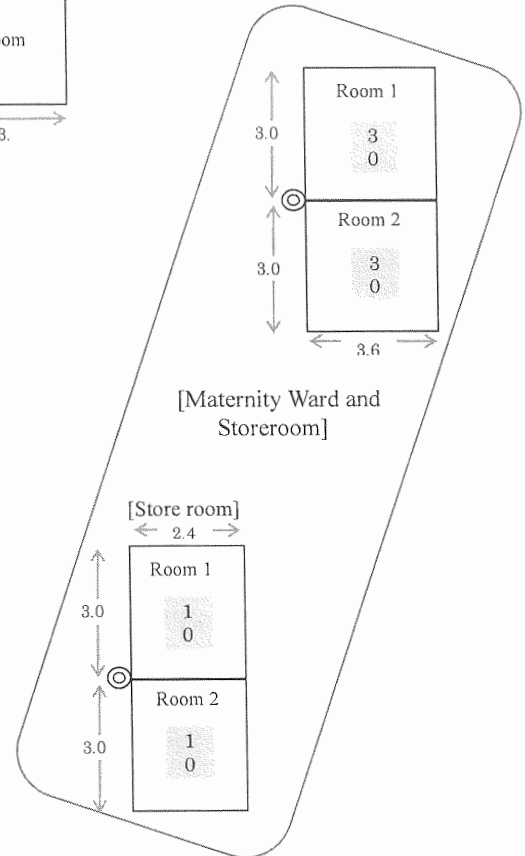
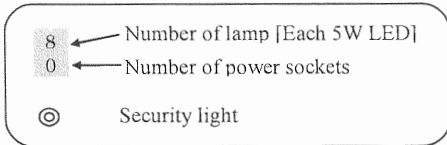
Angata Nanyukie, Samburu County



[Charging Houses]

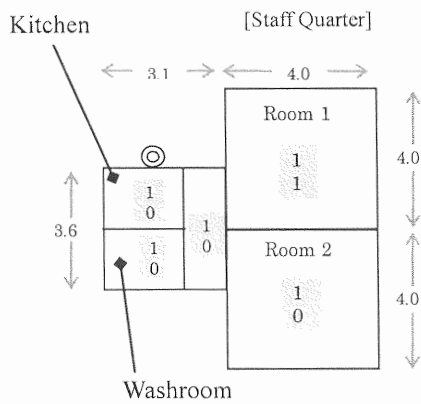


Angata Nanyukie Dispensary



[Maternity Ward and Storeroom]

[Store room]



[Staff Quarter]

Emer A

Angata Nanyukie, Samburu County

2-4 Is the project consistent with the higher program/policy?

Yes: Please describe the higher program/policy.

(- Energy Act of 2006

- Rural Electrification Programme & Kenya Vision 2030

- Rural Electrification Master plan (REM 2009-2018)

- REA Strategic Plan 2008-2012)

No

2-5 Did the proponent consider alternatives before this request?

Yes: Please describe outline of the alternatives

(- The first alternative would be grid densification so as to supply the school with quality and affordable electricity as envisaged by the Vision 2030.

- The second alternative would be to use off-grid supply using oil fired components as stipulated in the Energy Act of 2006.)

No

2-6 Did the proponent have meetings with related stakeholders before this request?

Yes No

If yes, please mark the corresponding stakeholders.

Administrative body

Local residents

NGO

Others (School staff)



Question 3

Is the project a new one or an on-going one? In case of an on-going one, have you received strong complaints, etc., from local residents?

- New On-going (there are complaints) On-going (there are no complaints)
 Others

[]

Question 4 Name(s) of laws or guidelines:

Is Environmental Impact Assessment (EIA) including Initial Environmental Examination (IEE) required for the project according to the laws or guidelines in the host country?

- Yes No

If yes, please mark corresponding items.

- Required only IEE (Implemented, on going, planning)
 Required both IEE and EIA (Implemented, on going, planning)
 Required only EIA (Implemented, on going, planning)
 Others:


[]

Question 5 (Not Applicable)

In the case when EIA steps were taken, was the EIA approved by the relevant laws in the host country? If yes, please mark date of approval and the competent authority.

<input type="checkbox"/> Approved: without a supplementary condition	<input type="checkbox"/> Approved: with a supplementary condition	<input type="checkbox"/> Under appraisal
--	---	--

(Date of approval: _____ Competent authority: _____)

- Not yet started an appraisal process
 Others: ()

Question 6

If the project requires a certificate pertaining to the environment and society other than the EIA, please indicate the title of that certificate.

- Already certified Required a certificate but not yet done

Title of the certificate :()

- Not required

- Others: (Collateral conditions for not requiring EIA procedures by NEMA)

1. Ensure that you obtain the requisite approvals from the Samburu County Government before commencement of the projects
2. Comply with the relevant principal laws, By-laws and guidelines issued for development of such a project within the jurisdiction of Samburu County Government, Ministry of Energy and Petroleum, Ministry of Lands, Housing and Urban Development and Ministry of Transport and Infrastructure and other relevant Authorities.
3. Ensure that all waste material and debris is collected, re used and where need be disposed off as per the Environmental Management and Coordination (Waste Management) Regulations 2006.
4. Ensure strict adherence to the provisions of Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.
5. Ensure strict adherence to the Occupational Safety and Health Act (OSHA), 2007.
6. Ensure that construction workers are provided with adequate personal protection equipment (PPE) , sanitary facilities as well as adequate training.
7. Emphasis must be given to control of dust, noise, vibration, occupational hazards and provision of sanitary facilities to the construction workforce.

Note: "you" in the item No. 1 stands for "Rural Electrification Authority".

Question 7

Are any of the following areas located inside or around the project site?

- Yes No Not identified

If yes, please mark corresponding items.

- National park, protected area designated by the government (coast line, wetlands, reserved area for ethnic or indigenous people, cultural heritage), and areas being considered for national parks or protected areas
- Virgin forests, tropical forests
- Ecological important habitat areas (coral reef, mangrove wetland, tidal flats)
- Habitat of valuable species protected by domestic laws or international treaties
- Likely salts cumulus or soil erosion areas on a massive scale
- Remarkable desertification trend areas
- Archaeological, historical or cultural valuable areas
- Living areas of ethnic, indigenous people or nomads who have a traditional lifestyle or special socially valuable areas

Angata Nanyukie, Samburu County

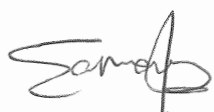
Question 8

Does the project have adverse impacts on the environment and local communities?

- Yes No Not identified

Reason:

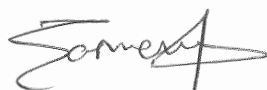
Solar PV is a silent technology and does not emit green house gases.



Question 9

Please mark related environmental and social impacts, and describe their outlines.

- | | |
|--|---|
| <input type="checkbox"/> Air pollution | <input type="checkbox"/> Involuntary resettlement |
| <input type="checkbox"/> Water pollution | <input type="checkbox"/> Local economy such as employment and livelihood etc. |
| <input type="checkbox"/> Soil pollution | <input type="checkbox"/> Land use and utilization of local resources |
| <input type="checkbox"/> Waste | <input type="checkbox"/> Social institutions such as social infrastructure and local decision-making institutions |
| <input type="checkbox"/> Noise and vibration | <input type="checkbox"/> Existing social infrastructures and services |
| <input type="checkbox"/> Ground subsidence | <input type="checkbox"/> The poor, indigenous of ethnic people |
| <input type="checkbox"/> Offensive odors | <input type="checkbox"/> Misdistribution of benefit and damage |
| <input type="checkbox"/> Geographical features | <input type="checkbox"/> Local conflict of interests |
| <input type="checkbox"/> Bottom sediment | <input type="checkbox"/> Gender |
| <input type="checkbox"/> Biota and ecosystem | <input type="checkbox"/> Children's rights |
| <input type="checkbox"/> Water usage | <input type="checkbox"/> Cultural heritage |
| <input type="checkbox"/> Accidents | <input type="checkbox"/> Infectious diseases such as HIV/AIDS etc. |
| <input type="checkbox"/> Global warming | <input type="checkbox"/> Others () |



Outline of related impacts:

Construction Phase

- Noise and vibration: there may be minimal noise and vibration during installation works of the PV system as a result of drilling and wiring works. However this will have very minimal impact and construction will be advised to be done as per the Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.

Operational Phase

- Since the PV is system will be used to recharge cell phones for the general public as a way of ensuring sustainability, this may lead to disturbance to pupils. This can however be managed by advising that the charging room to be sited close to the gate and around 200 metres from the classrooms where members of the public can access with minimal disturbance to pupils' learning process. Limiting the time for members of the public accessing the school for cell phone charging is also advised.
- On a positive note, the PV system will help (however small) in reducing emission of green house gases in to the atmosphere thereby reducing global warming.

Question 10

Information disclosure and meetings with stakeholders

10-1 If environmental and social considerations are required, does the proponent agree on information disclosure and meetings with stakeholders in accordance with JICA Guidelines for Environmental and Social Considerations?

Yes No

A meeting was held between JICA Expert team and the local persons likely to be affected by the project. Participants were:

AFFECTED PERSONS

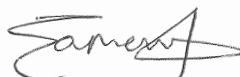
1. Mr. Longiro-Chairman, Management committee
2. Jacob Lekupe –Community health worker

JICA TEAM

1. Tsutomu Dei-Team leader, JICA Expert Team
2. Francis Mworria-Assistant Expert, Photo voltaic

10-2 If no, please describe reasons below

N/A



Iaut, Samburu County

Appendix 3. Screening Format

Name of a Proposed Project:

Project for the Establishment of Rural Electrification Model using Renewable Energy

Lot 1: Electrification of Public Boarding Primary School with Solar PV in Iltumtum, Narok County

Project Executing Organization:


Name, Post, Organization and Contact Point of a Responsible Officer

Chief Executive Officer,
Rural Electrification Authority
P.O. Box 34585-00100
Tel: +254-020-4953000
+254-020-4953600

Fax: +254-20-2710944

E-Mail: info@rea.co.ke

Attention to,
Eng. Ephantus Kamweru


Signature:

Date: 24/3/2014

Iaut, Samburu County

Check Items

Question 1: Address of project site: Iaut Primary School, Samburu County

Question 2: Outline of the project

- The project involves electrification of the school and cell phone charging.
- This involves mounting solar panels on the rooftop of the school facility to tap solar energy which is used to charge batteries before being converted to electric energy.

2-1 Does the project come under following sectors?

Yes No

If yes, please mark the corresponding items.

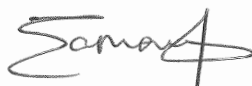
- Mining development
- Industrial development
- Thermal power (including geothermal power)
- Hydropower, dams and reservoirs
- River/erosion control
- Power transmission and distribution lines
- Roads, railways and bridges
- Airports
- Ports and harbors
- Water supply, sewage and waste treatment
- Waste management and disposal
- Agriculture involving large-scale land-clearing or irrigation
- Forestry
- Fishery
- Tourism

2-2 Does the project include any of the following items?

Yes No

If yes, please mark following items that the project includes.

- Involuntary resettlement (scale: households persons)
- Groundwater pumping (scale: m³/year)
- Land reclamation, land development and land-clearing (scale: hectares)
- Logging (scale: hectares)



Iaut, Samburu County

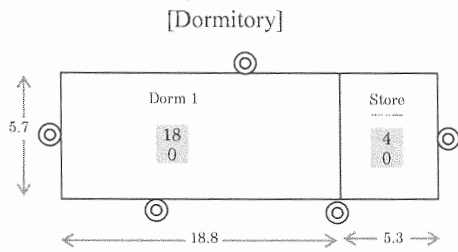
2-3 Description of the Project:
(Scale and/or Basic Information)

- The project involves supplying the school with electricity using photo voltaic solar technology.
- This involves mounting solar panels on the rooftop of the school facility to tap solar energy which is used to charge batteries before being converted to electric energy.
- The Direct Current (DC) from the battery will be converted to Alternate Current (AC) by an inverter.
- Fluorescent lamps will be used for lighting.
- PV size of 4.2 KW.

(See the layout plan below)

A handwritten signature in black ink, appearing to read "Somex" followed by a stylized flourish.

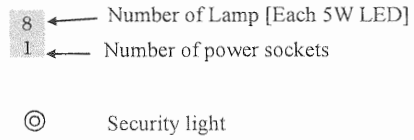
Iaut, Samburu County



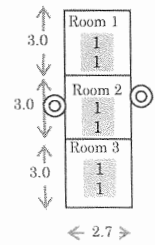
Kitchen



Iaut Primary School

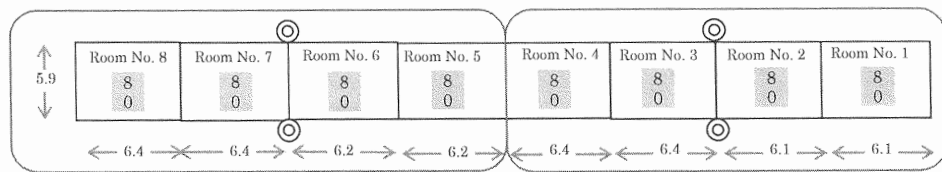


[Staff Quarters]



[Room No. 5 - 8]

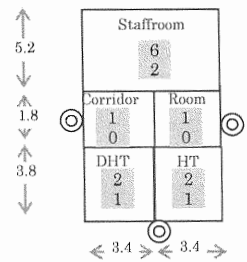
System Type P3 [Room No. 1 - 4]



[Charging house]



[Office Block]



S

Samuel

Iaut, Samburu County

2-4 Is the project consistent with the higher program/policy?

Yes: Please describe the higher program/policy.

(- Energy Act of 2006

- Rural Electrification Programme & Kenya Vision 2030

- Rural Electrification Master plan (REM 2009-2018)

- REA Strategic Plan 2008-2012)

No

2-5 Did the proponent consider alternatives before this request?

Yes: Please describe outline of the alternatives

(- The first alternative would be grid densification so as to supply the school with quality and affordable electricity as envisaged by the Vision 2030.

- The second alternative would be to use off-grid supply using oil fired components as stipulated in the Energy Act of 2006.)

No

2-6 Did the proponent have meetings with related stakeholders before this request?

Yes No

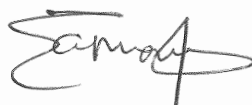
If yes, please mark the corresponding stakeholders.

Administrative body

Local residents

NGO

Others (School staff)



Question 3

Is the project a new one or an on-going one? In case of an on-going one, have you received strong complaints, etc., from local residents?

- New On-going (there are complaints) On-going (there are no complaints)
 Others

[]

Question 4 Name(s) of laws or guidelines:

Is Environmental Impact Assessment (EIA) including Initial Environmental Examination (IEE) required for the project according to the laws or guidelines in the host country?

- Yes No

If yes, please mark corresponding items.

- Required only IEE (Implemented, on going, planning)
 Required both IEE and EIA (Implemented, on going, planning)
 Required only EIA (Implemented, on going, planning)
 Others:

[]

Question 5 (Not Applicable)

In the case when EIA steps were taken, was the EIA approved by the relevant laws in the host country? If yes, please mark date of approval and the competent authority.

<input type="checkbox"/> Approved: without a supplementary condition	<input type="checkbox"/> Approved: with a supplementary condition	<input type="checkbox"/> Under appraisal
--	---	--

(Date of approval: _____ Competent authority: _____)

- Not yet started an appraisal process
 Others: (_____)



Iaut, Samburu County

Question 6

If the project requires a certificate pertaining to the environment and society other than the EIA, please indicate the title of that certificate.

Already certified Required a certificate but not yet done

Title of the certificate :()

Not required

Others: (Collateral conditions for not requiring EIA procedures by NEMA)

1. Ensure that you obtain the requisite approvals from the Samburu County Government before commencement of the projects
2. Comply with the relevant principal laws, By-laws and guidelines issued for development of such a project within the jurisdiction of Samburu County Government, Ministry of Energy and Petroleum, Ministry of Lands, Housing and Urban Development and Ministry of Transport and Infrastructure and other relevant Authorities.
3. Ensure that all waste material and debris is collected, re used and where need be disposed off as per the Environmental Management and Coordination (Waste Management) Regulations 2006.
4. Ensure strict adherence to the provisions of Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.
5. Ensure strict adherence to the Occupational Safety and Health Act (OSHA), 2007.
6. Ensure that construction workers are provided with adequate personal protection equipment (PPE), sanitary facilities as well as adequate training.
7. Emphasis must be given to control of dust, noise, vibration, occupational hazards and provision of sanitary facilities to the construction workforce.

Note: "you" in the item No. 1 stands for "Rural Electrification Authority".

Question 7

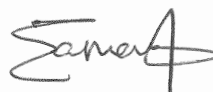
Are any of the following areas located inside or around the project site?

Yes No Not identified

If yes, please mark corresponding items.

- National park, protected area designated by the government (coast line, wetlands, reserved area for ethnic or indigenous people, cultural heritage), and areas being considered for national parks or protected areas
- Virgin forests, tropical forests
- Ecological important habitat areas (coral reef, mangrove wetland, tidal flats)
- Habitat of valuable species protected by domestic laws or international treaties
- Likely salts cumulus or soil erosion areas on a massive scale
- Remarkable desertification trend areas
- Archaeological, historical or cultural valuable areas
- Living areas of ethnic, indigenous people or nomads who have a traditional lifestyle or special socially valuable areas

7



Iaut, Samburu County

Question 8

Does the project have adverse impacts on the environment and local communities?

Yes

No

Not identified

Reason:

Solar PV is a silent technology and does not emit green house gases.

A handwritten signature in black ink, appearing to read 'Samuel' followed by a stylized flourish.

Iait, Samburu County

Question 9

Please mark related environmental and social impacts, and describe their outlines.

- | | |
|--|---|
| <input type="checkbox"/> Air pollution | <input type="checkbox"/> Involuntary resettlement |
| <input type="checkbox"/> Water pollution | <input type="checkbox"/> Local economy such as employment and livelihood etc. |
| <input type="checkbox"/> Soil pollution | <input type="checkbox"/> Land use and utilization of local resources |
| <input type="checkbox"/> Waste | <input type="checkbox"/> Social institutions such as social infrastructure and local decision-making institutions |
| <input type="checkbox"/> Noise and vibration | <input type="checkbox"/> Existing social infrastructures and services |
| <input type="checkbox"/> Ground subsidence | <input type="checkbox"/> The poor, indigenous of ethnic people |
| <input type="checkbox"/> Offensive odors | <input type="checkbox"/> Misdistribution of benefit and damage |
| <input type="checkbox"/> Geographical features | <input type="checkbox"/> Local conflict of interests |
| <input type="checkbox"/> Bottom sediment | <input type="checkbox"/> Gender |
| <input type="checkbox"/> Biota and ecosystem | <input type="checkbox"/> Children's rights |
| <input type="checkbox"/> Water usage | <input type="checkbox"/> Cultural heritage |
| <input type="checkbox"/> Accidents | <input type="checkbox"/> Infectious diseases such as HIV/AIDS etc. |
| <input type="checkbox"/> Global warming | <input type="checkbox"/> Others () |



Outline of related impacts:

Construction Phase

- Noise and vibration: there may be minimal noise and vibration during installation works of the PV system as a result of drilling and wiring works. However this will have very minimal impact and construction will be advised to be done as per the Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.

Operational Phase

- Since the PV system will be used to recharge cell phones for the general public as a way of ensuring sustainability, this may lead to disturbance to pupils. This can however be managed by advising that the charging room to be sited close to the gate and around 200 metres from the classrooms where members of the public can access with minimal disturbance to pupils' learning process. Limiting the time for members of the public accessing the school for cell phone charging is also advised.
- On a positive note, the PV system will help (however small) in reducing emission of green house gases in to the atmosphere thereby reducing global warming.

Question 10

Information disclosure and meetings with stakeholders

10-1 If environmental and social considerations are required, does the proponent agree on information disclosure and meetings with stakeholders in accordance with JICA Guidelines for Environmental and Social Considerations?

Yes No

A meeting was held between JICA Expert team and the local persons likely to be affected by the project. Participants were:

AFFECTED PERSONS

1. Alex Lesamachale –Head teacher

JICA TEAM

1. Tsutomu Dei-Team leader-JICA project
2. Francis Mworio-Assistant Expert, Photo voltaic

10-2 If no, please describe reasons below

N/A



Latakweny, Samburu County

Appendix 3. Screening Format

Name of a Proposed Project:

Project for the Establishment of Rural Electrification Model using Renewable Energy

Lot 1: Electrification of Public Boarding Primary School with Solar PV in Latakweny, Samburu County

Project Executing Organization:

Name, Post, Organization and Contact Point of a Responsible Officer

Chief Executive Officer,
Rural Electrification Authority

P.O. Box 34585-00100

Tel: +254-020-4953000


+254-020-4953600

Fax: +254-20-2710944

E-Mail: info@rea.co.ke

Attention to,

Eng. Ephantus Kamweru


Signature:

Date: 24/3/2014

Latakweny, Samburu County

Check Items

Question 1: Address of project site: Latakweny Primary School, Samburu County

Question 2: Outline of the project

- The project involves electrification of the school and cell phone charging.
- This involves mounting solar panels on the rooftop of the school facility to tap solar energy which is used to charge batteries before being converted to electric energy.

2-1 Does the project come under following sectors?

Yes No

If yes, please mark the corresponding items.

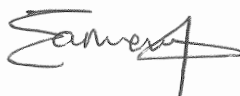
- Mining development
- Industrial development
- Thermal power (including geothermal power)
- Hydropower, dams and reservoirs
- River/erosion control
- Power transmission and distribution lines
- Roads, railways and bridges
- Airports
- Ports and harbors
- Water supply, sewage and waste treatment
- Waste management and disposal
- Agriculture involving large-scale land-clearing or irrigation
- Forestry
- Fishery
- Tourism

2-2 Does the project include any of the following items?

Yes No

If yes, please mark following items that the project includes.

- Involuntary resettlement (scale: households persons)
- Groundwater pumping (scale: m³/year)
- Land reclamation, land development and land-clearing (scale: hectares)
- Logging (scale: hectares)



Latakweny, Samburu County

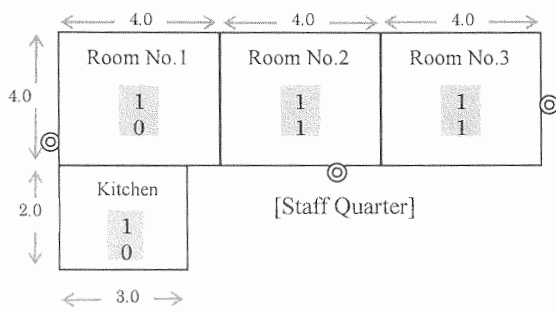
2-3 Description of the Project:
(Scale and/or Basic Information)

- The project involves supplying the school with electricity using photo voltaic solar technology.
- This involves mounting solar panels on the rooftop of the school facility to tap solar energy which is used to charge batteries before being converted to electric energy.
- The Direct Current (DC) from the battery will be converted to Alternate Current (AC) by an inverter.
- Fluorescent lamps will be used for lighting.
- PV size of 2.4 KW.

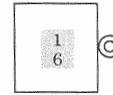
(See the layout plan below)

A handwritten signature in black ink, appearing to read "Sand" with a stylized flourish at the end.

Latakweny, Samburu County

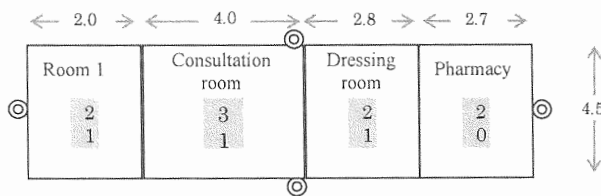


[Charging Houses]

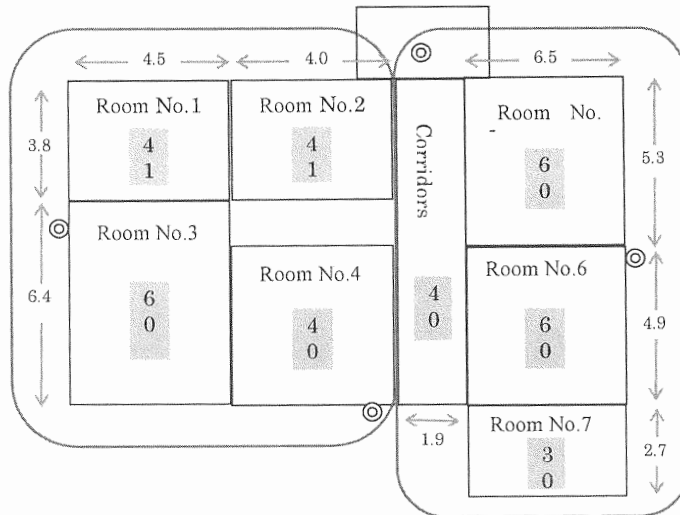


Latakweny Dispensary

8 ← Number of lamp [Each 5W LED]
 0 ← Number of power sockets
 ⊙ Security light



[Wards Rooms]



[Wards Rooms] and [Corridors]

Samex

Latakweny, Samburu County

2-4 Is the project consistent with the higher program/policy?

Yes: Please describe the higher program/policy.

(- Energy Act of 2006

- Rural Electrification Programme & Kenya Vision 2030

- Rural Electrification Master plan (REM 2009-2018)

- REA Strategic Plan 2008-2012)

No

2-5 Did the proponent consider alternatives before this request?

Yes: Please describe outline of the alternatives

(- The first alternative would be grid densification so as to supply the school with quality and affordable electricity as envisaged by the Vision 2030.

- The second alternative would be to use off-grid supply using oil fired components as stipulated in the Energy Act of 2006.)

No

2-6 Did the proponent have meetings with related stakeholders before this request?

Yes No

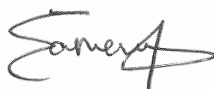
If yes, please mark the corresponding stakeholders.

Administrative body

Local residents

NGO

Others (School staff)



Latakweny, Samburu County

Question 3

Is the project a new one or an on-going one? In case of an on-going one, have you received strong complaints, etc., from local residents?

- New On-going (there are complaints) On-going (there are no complaints)
 Others

()

Question 4 Name(s) of laws or guidelines:

Is Environmental Impact Assessment (EIA) including Initial Environmental Examination (IEE) required for the project according to the laws or guidelines in the host country?

- Yes No

If yes, please mark corresponding items.

- Required only IEE (Implemented, on going, planning)
 Required both IEE and EIA (Implemented, on going, planning)
 Required only EIA (Implemented, on going, planning)
 Others:

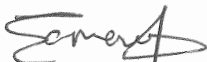
()

Question 5 (Not Applicable)

In the case when EIA steps were taken, was the EIA approved by the relevant laws in the host country? If yes, please mark date of approval and the competent authority.

<input type="checkbox"/> Approved: without a supplementary condition	<input type="checkbox"/> Approved: with a supplementary condition	<input type="checkbox"/> Under appraisal
--	---	--

(Date of approval: _____ Competent authority: _____)

- Not yet started an appraisal process
 Others: ()

Latakweny, Samburu County

Question 6

If the project requires a certificate pertaining to the environment and society other than the EIA, please indicate the title of that certificate.

Already certified Required a certificate but not yet done

Title of the certificate :()

Not required

Others: (Collateral conditions for not requiring EIA procedures by NEMA)

1. Ensure that you obtain the requisite approvals from the Samburu County Government before commencement of the projects
2. Comply with the relevant principal laws, By-laws and guidelines issued for development of such a project within the jurisdiction of Samburu County Government, Ministry of Energy and Petroleum, Ministry of Lands, Housing and Urban Development and Ministry of Transport and Infrastructure and other relevant Authorities.
3. Ensure that all waste material and debris is collected, re used and where need be disposed off as per the Environmental Management and Coordination (Waste Management) Regulations 2006.
4. Ensure strict adherence to the provisions of Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.
5. Ensure strict adherence to the Occupational Safety and Health Act (OSHA), 2007.
6. Ensure that construction workers are provided with adequate personal protection equipment (PPE) , sanitary facilities as well as adequate training.
7. Emphasis must be given to control of dust, noise, vibration, occupational hazards and provision of sanitary facilities to the construction workforce.

Note: "you" in the item No. 1 stands for "Rural Electrification Authority".

Question 7

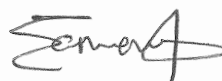
Are any of the following areas located inside or around the project site?

Yes No Not identified

If yes, please mark corresponding items.

- National park, protected area designated by the government (coast line, wetlands, reserved area for ethnic or indigenous people, cultural heritage), and areas being considered for national parks or protected areas
- Virgin forests, tropical forests
- Ecological important habitat areas (coral reef, mangrove wetland, tidal flats)
- Habitat of valuable species protected by domestic laws or international treaties
- Likely salts cumulus or soil erosion areas on a massive scale
- Remarkable desertification trend areas
- Archaeological, historical or cultural valuable areas
- Living areas of ethnic, indigenous people or nomads who have a traditional lifestyle or special socially valuable areas

7



Latakweny, Samburu County

Question 8

Does the project have adverse impacts on the environment and local communities?

Yes

No

Not identified

Reason:

Solar PV is a silent technology and does not emit green house gases.


A handwritten signature in black ink, appearing to read "Samuel", is centered on the page.

Latakweny, Samburu County

Question 9

Please mark related environmental and social impacts, and describe their outlines.

- | | |
|--|---|
| <input type="checkbox"/> Air pollution | <input type="checkbox"/> Involuntary resettlement |
| <input type="checkbox"/> Water pollution | <input type="checkbox"/> Local economy such as employment and livelihood etc. |
| <input type="checkbox"/> Soil pollution | <input type="checkbox"/> Land use and utilization of local resources |
| <input type="checkbox"/> Waste | <input type="checkbox"/> Social institutions such as social infrastructure and local decision-making institutions |
| <input type="checkbox"/> Noise and vibration | <input type="checkbox"/> Existing social infrastructures and services |
| <input type="checkbox"/> Ground subsidence | <input type="checkbox"/> The poor, indigenous of ethnic people |
| <input type="checkbox"/> Offensive odors | <input type="checkbox"/> Misdistribution of benefit and damage |
| <input type="checkbox"/> Geographical features | <input type="checkbox"/> Local conflict of interests |
| <input type="checkbox"/> Bottom sediment | <input type="checkbox"/> Gender |
| <input type="checkbox"/> Biota and ecosystem | <input type="checkbox"/> Children's rights |
| <input type="checkbox"/> Water usage | <input type="checkbox"/> Cultural heritage |
| <input type="checkbox"/> Accidents | <input type="checkbox"/> Infectious diseases such as HIV/AIDS etc. |
| <input type="checkbox"/> Global warming | <input type="checkbox"/> Others () |



Latakweny, Samburu County

Outline of related impacts:

Construction Phase

- Noise and vibration: there may be minimal noise and vibration during installation works of the PV system as a result of drilling and wiring works. However this will have very minimal impact and construction will be advised to be done as per the Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.

Operational Phase

- Since the PV system will be used to recharge cell phones for the general public as a way of ensuring sustainability, this may lead to disturbance to pupils. This can however be managed by advising that the charging room to be sited close to the gate and around 200 metres from the classrooms where members of the public can access with minimal disturbance to pupils' learning process. Limiting the time for members of the public accessing the school for cell phone charging is also advised.
- On a positive note, the PV system will help (however small) in reducing emission of green house gases in to the atmosphere thereby reducing global warming.

Question 10

Information disclosure and meetings with stakeholders

10-1 If environmental and social considerations are required, does the proponent agree on information disclosure and meetings with stakeholders in accordance with JICA Guidelines for Environmental and Social Considerations?

Yes No

A meeting was held between JICA Expert team and the local persons likely to be affected by the project. Participants were:

AFFECTED PERSONS

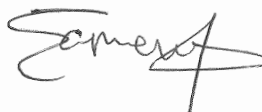
1. Josphat Harrison –Nurse in charge

JICA TEAM

1. Dipak Bista-Expert, Photo Voltaic technology
2. Francis Mworira-Assistant Expert, Photo voltaic

10-2 If no, please describe reasons below

N/A



Appendix 3. Screening Format

Name of a Proposed Project:

Project for the Establishment of Rural Electrification Model using Renewable Energy
Lot 1: Electrification of Public Boarding Primary School with Solar PV in Marti, Samburu County

Project Executing Organization:

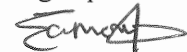
Name, Post, Organization and Contact Point of a Responsible Officer

Chief Executive Officer,
Rural Electrification Authority
P.O. Box 34585-00100
Tel: +254-020-4953000
+254-020-4953600

Fax: +254-20-2710944

E-Mail: info@rea.co.ke

Attention to,
Eng. Ephantus Kamweru



Signature:

Date: 24/0/2014

Check Items

Question 1: Address of project site: Marti Primary School, Samburu County

Question 2: Outline of the project

- The project involves electrification of the school and cell phone charging.
- This involves mounting solar panels on the rooftop of the school facility to tap solar energy which is used to charge batteries before being converted to electric energy.

2-1 Does the project come under following sectors?

Yes No

If yes, please mark the corresponding items.

- Mining development
- Industrial development
- Thermal power (including geothermal power)
- Hydropower, dams and reservoirs
- River/erosion control
- Power transmission and distribution lines
- Roads, railways and bridges
- Airports
- Ports and harbors
- Water supply, sewage and waste treatment
- Waste management and disposal
- Agriculture involving large-scale land-clearing or irrigation
- Forestry
- Fishery
- Tourism

2-2 Does the project include any of the following items?

Yes No

If yes, please mark following items that the project includes.

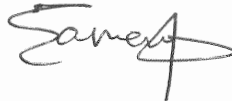
- Involuntary resettlement (scale: households persons)
- Groundwater pumping (scale: m³/year)
- Land reclamation, land development and land-clearing (scale: hectares)
- Logging (scale: hectares)

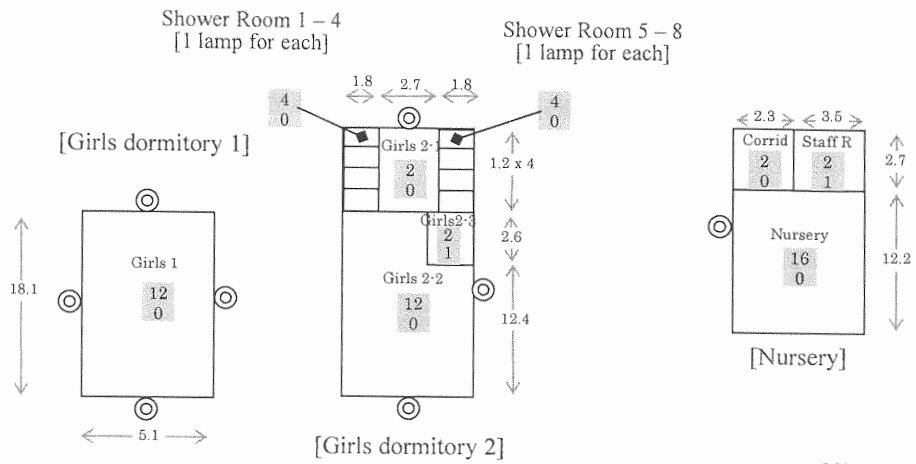


2-3 Description of the Project:
(Scale and/or Basic Information)

- The project involves supplying the school with electricity using photo voltaic solar technology.
- This involves mounting solar panels on the rooftop of the school facility to tap solar energy which is used to charge batteries before being converted to electric energy.
- The Direct Current (DC) from the battery will be converted to Alternate Current (AC) by an inverter.
- Fluorescent lamps will be used for lighting.
- PV size of 6.36 KW.

(See the layout plan below)

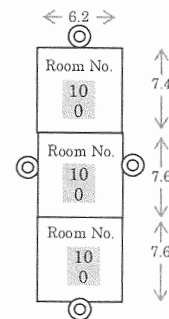
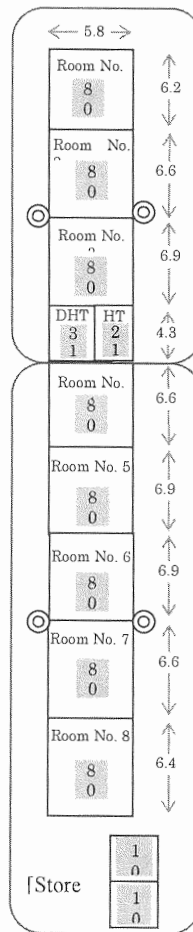
A handwritten signature in black ink, appearing to read "Samer" with a stylized flourish at the end.



[Charging Houses]

Marti Primary School

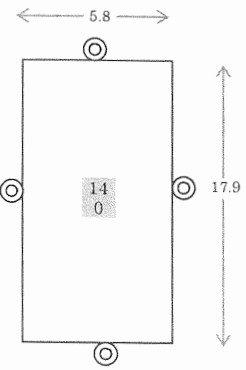
8 ← Number of lamp [Each 5W LED]
1 ← Number of power sockets
⊙ Security light



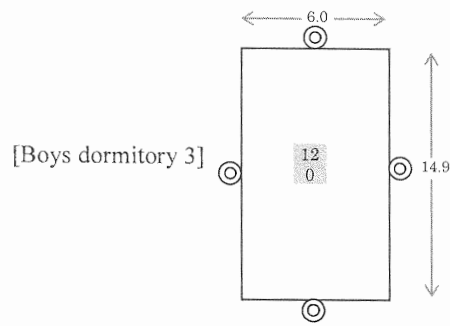
Samuel

Marti, Samburu County

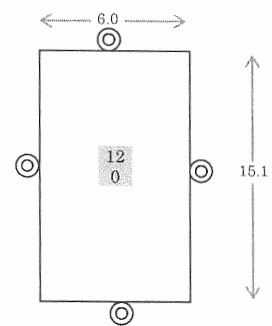
Kitchen



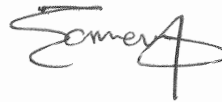
[Boys dormitory 1]



[Boys dormitory 3]



[Boys dormitory 2]



2-4 Is the project consistent with the higher program/policy?

Yes: Please describe the higher program/policy.

(- Energy Act of 2006

- Rural Electrification Programme & Kenya Vision 2030

- Rural Electrification Master plan (REM 2009-2018)

- REA Strategic Plan 2008-2012)

No

2-5 Did the proponent consider alternatives before this request?

Yes: Please describe outline of the alternatives

(- The first alternative would be grid densification so as to supply the school with quality and affordable electricity as envisaged by the Vision 2030.

- The second alternative would be to use off-grid supply using oil fired components as stipulated in the Energy Act of 2006.)

No

2-6 Did the proponent have meetings with related stakeholders before this request?

Yes No

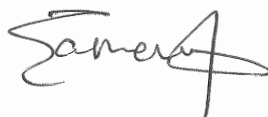
If yes, please mark the corresponding stakeholders.

Administrative body

Local residents

NGO

Others (School staff)



Question 3

Is the project a new one or an on-going one? In case of an on-going one, have you received strong complaints, etc., from local residents?

- New On-going (there are complaints) On-going (there are no complaints)
 Others

[]

Question 4 Name(s) of laws or guidelines:

Is Environmental Impact Assessment (EIA) including Initial Environmental Examination (IEE) required for the project according to the laws or guidelines in the host country?

- Yes No

If yes, please mark corresponding items.

- Required only IEE (Implemented, on going, planning)
 Required both IEE and EIA (Implemented, on going, planning)
 Required only EIA (Implemented, on going, planning)
 Others:

[]

Question 5 (Not Applicable)

In the case when EIA steps were taken, was the EIA approved by the relevant laws in the host country? If yes, please mark date of approval and the competent authority.

<input type="checkbox"/> Approved: without a supplementary condition	<input type="checkbox"/> Approved: with a supplementary condition	<input type="checkbox"/> Under appraisal
--	---	--

(Date of approval: _____ Competent authority: _____)

- Not yet started an appraisal process
 Others: (

)

Question 6

If the project requires a certificate pertaining to the environment and society other than the EIA, please indicate the title of that certificate.

Already certified Required a certificate but not yet done

Title of the certificate :()

Not required

Others: (Collateral conditions for not requiring EIA procedures by NEMA)

1. Ensure that you obtain the requisite approvals from the Samburu County Government before commencement of the projects
2. Comply with the relevant principal laws, By-laws and guidelines issued for development of such a project within the jurisdiction of Samburu County Government, Ministry of Energy and Petroleum, Ministry of Lands, Housing and Urban Development and Ministry of Transport and Infrastructure and other relevant Authorities.
3. Ensure that all waste material and debris is collected, re used and where need be disposed off as per the Environmental Management and Coordination (Waste Management) Regulations 2006.
4. Ensure strict adherence to the provisions of Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.
5. Ensure strict adherence to the Occupational Safety and Health Act (OSHA), 2007.
6. Ensure that construction workers are provided with adequate personal protection equipment (PPE) , sanitary facilities as well as adequate training.
7. Emphasis must be given to control of dust, noise, vibration, occupational hazards and provision of sanitary facilities to the construction workforce.

Note: "you" in the item No. 1 stands for "Rural Electrification Authority".

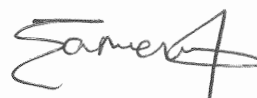
Question 7

Are any of the following areas located inside or around the project site?

Yes No Not identified

If yes, please mark corresponding items.

- National park, protected area designated by the government (coast line, wetlands, reserved area for ethnic or indigenous people, cultural heritage), and areas being considered for national parks or protected areas
- Virgin forests, tropical forests
- Ecological important habitat areas (coral reef, mangrove wetland, tidal flats)
- Habitat of valuable species protected by domestic laws or international treaties
- Likely salts cumulus or soil erosion areas on a massive scale
- Remarkable desertification trend areas
- Archaeological, historical or cultural valuable areas
- Living areas of ethnic, indigenous people or nomads who have a traditional lifestyle or special socially valuable areas



Question 8

Does the project have adverse impacts on the environment and local communities?

Yes No Not identified

Reason:

[Solar PV is a silent technology and does not emit green house gases.]

A handwritten signature in black ink, appearing to read "Samuel".

Question 9

Please mark related environmental and social impacts, and describe their outlines.

- | | |
|--|---|
| <input type="checkbox"/> Air pollution | <input type="checkbox"/> Involuntary resettlement |
| <input type="checkbox"/> Water pollution | <input type="checkbox"/> Local economy such as employment and livelihood etc. |
| <input type="checkbox"/> Soil pollution | <input type="checkbox"/> Land use and utilization of local resources |
| <input type="checkbox"/> Waste | <input type="checkbox"/> Social institutions such as social infrastructure and local decision-making institutions |
| <input type="checkbox"/> Noise and vibration | <input type="checkbox"/> Existing social infrastructures and services |
| <input type="checkbox"/> Ground subsidence | <input type="checkbox"/> The poor, indigenous of ethnic people |
| <input type="checkbox"/> Offensive odors | <input type="checkbox"/> Misdistribution of benefit and damage |
| <input type="checkbox"/> Geographical features | <input type="checkbox"/> Local conflict of interests |
| <input type="checkbox"/> Bottom sediment | <input type="checkbox"/> Gender |
| <input type="checkbox"/> Biota and ecosystem | <input type="checkbox"/> Children's rights |
| <input type="checkbox"/> Water usage | <input type="checkbox"/> Cultural heritage |
| <input type="checkbox"/> Accidents | <input type="checkbox"/> Infectious diseases such as HIV/AIDS etc. |
| <input type="checkbox"/> Global warming | <input type="checkbox"/> Others () |



Outline of related impacts:

Construction Phase

- Noise and vibration: there may be minimal noise and vibration during installation works of the PV system as a result of drilling and wiring works. However this will have very minimal impact and construction will be advised to be done as per the Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.

Operational Phase

- Since the PV is system will be used to recharge cell phones for the general public as a way of ensuring sustainability, this may lead to disturbance to pupils. This can however be managed by advising that the charging room to be sited close to the gate and around 200 metres from the classrooms where members of the public can access with minimal disturbance to pupils' learning process. Limiting the time for members of the public accessing the school for cell phone charging is also advised.
- On a positive note, the PV system will help (however small) in reducing emission of green house gases in to the atmosphere thereby reducing global warming.

Question 10

Information disclosure and meetings with stakeholders

10-1 If environmental and social considerations are required, does the proponent agree on information disclosure and meetings with stakeholders in accordance with JICA Guidelines for Environmental and Social Considerations?

Yes No

A meeting was held between JICA Expert team and the local persons likely to be affected by the project. Participants were:

AFFECTED PERSONS

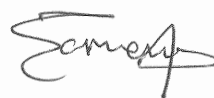
1. Samuel Akuwan –Head teacher
2. Philip Lousiye-Deputy head teacher
3. Petro Echuka-Chair, School management committee

JICA TEAM

1. Tsutomu Dei-Team leader, JICA project
2. Francis Mworio-Assistant Expert, Photo voltaic

10-2 If no, please describe reasons below

N/A



South Horr, Samburu County

Appendix 3. Screening Format

Name of Proposed Project:

Project for the Establishment of Rural Electrification Model using Renewable Energy

Lot 1: Electrification of Public Boarding Primary School with Solar PV in South Horr, Samburu County

Project Executing Organization:

Name, Post, Organization and Contact Point of a Responsible Officer

Chief Executive Officer,
Rural Electrification Authority
P.O. Box 34585-00100
Tel: +254-020-4953000
+254-020-4953600

Fax: +254-20-2710944

E-Mail: info@rea.co.ke

Attention to,
Eng. Ephantus Kamweru



Signature:

Date: 24/3/2014

South Horr, Samburu County

Check Items

Question 1: Address of project site: South Horr Dispensary, Samburu County

Question 2: Outline of the project

- The project involves electrification of the school and cell phone charging.
- This involves mounting solar panels on the rooftop of the school facility to tap solar energy which is used to charge batteries before being converted to electric energy.

2-1 Does the project come under following sectors?

Yes No

If yes, please mark the corresponding items.

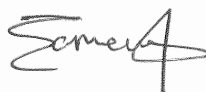
- Mining development
- Industrial development
- Thermal power (including geothermal power)
- Hydropower, dams and reservoirs
- River/erosion control
- Power transmission and distribution lines
- Roads, railways and bridges
- Airports
- Ports and harbors
- Water supply, sewage and waste treatment
- Waste management and disposal
- Agriculture involving large-scale land-clearing or irrigation
- Forestry
- Fishery
- Tourism

2-2 Does the project include any of the following items?

Yes No

If yes, please mark following items that the project includes.

- Involuntary resettlement (scale: households persons)
- Groundwater pumping (scale: m³/year)
- Land reclamation, land development and land-clearing (scale: hectares)
- Logging (scale: hectares)

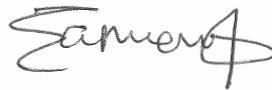


South Horr, Samburu County

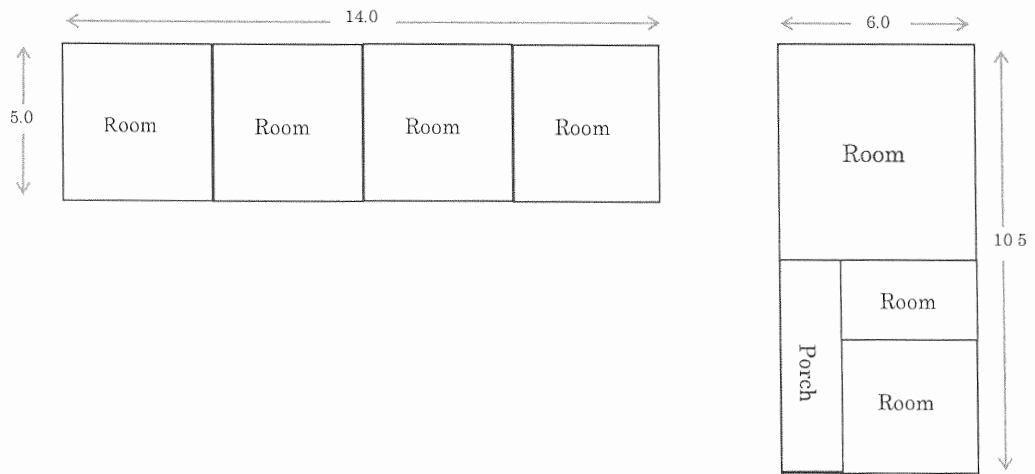
2-3 Description of the Project:
(Scale and/or Basic Information)

- The project involves supplying the school with electricity using photo voltaic solar technology.
- This involves mounting solar panels on the rooftop of the school facility to tap solar energy which is used to charge batteries before being converted to electric energy.
- The Direct Current (DC) from the battery will be converted to Alternate Current (AC) by an inverter.
- Fluorescent lamps will be used for lighting.
- PV size of 0.48 KW.

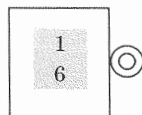
(See the layout plan below)

A handwritten signature in black ink, appearing to read "Samuel", is centered on the page.

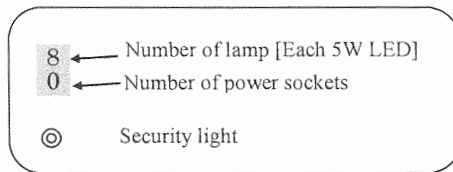
South Horr, Samburu County



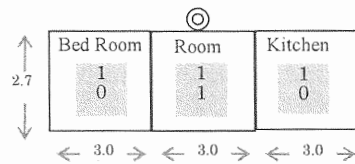
[Charging Houses]



South Horr Dispensary



[Staff Quarters]



Samer A

South Horr, Samburu County

2-4 Is the project consistent with the higher program/policy?

Yes: Please describe the higher program/policy.

(- Energy Act of 2006

- Rural Electrification Programme & Kenya Vision 2030

- Rural Electrification Master plan (REM 2009-2018)

- REA Strategic Plan 2008-2012)

No

2-5 Did the proponent consider alternatives before this request?

Yes: Please describe outline of the alternatives

(- The first alternative would be grid densification so as to supply the school with quality and affordable electricity as envisaged by the Vision 2030.

- The second alternative would be to use off-grid supply using oil fired components as stipulated in the Energy Act of 2006.)

No

2-6 Did the proponent have meetings with related stakeholders before this request?

Yes No

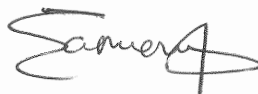
If yes, please mark the corresponding stakeholders.

Administrative body

Local residents

NGO

Others (School staff)



South Horr, Samburu County

Question 3

Is the project a new one or an on-going one? In case of an on-going one, have you received strong complaints, etc., from local residents?

- New On-going (there are complaints) On-going (there are no complaints)
 Others

[]

Question 4 Name(s) of laws or guidelines:

Is Environmental Impact Assessment (EIA) including Initial Environmental Examination (IEE) required for the project according to the laws or guidelines in the host country?

- Yes No

If yes, please mark corresponding items.

- Required only IEE (Implemented, on going, planning)
 Required both IEE and EIA (Implemented, on going, planning)
 Required only EIA (Implemented, on going, planning)
 Others:

[]

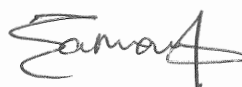
Question 5 (Not Applicable)

In the case when EIA steps were taken, was the EIA approved by the relevant laws in the host country? If yes, please mark date of approval and the competent authority.

<input type="checkbox"/> Approved: without a supplementary condition	<input type="checkbox"/> Approved: with a supplementary condition	<input type="checkbox"/> Under appraisal
--	---	--

(Date of approval: _____ Competent authority: _____)

- Not yet started an appraisal process
 Others: (_____)



Question 6

If the project requires a certificate pertaining to the environment and society other than the EIA, please indicate the title of that certificate.

Already certified Required a certificate but not yet done

Title of the certificate :()

Not required

Others: (Collateral conditions for not requiring EIA procedures by NEMA)

1. Ensure that you obtain the requisite approvals from the Samburu County Government before commencement of the projects
2. Comply with the relevant principal laws, By-laws and guidelines issued for development of such a project within the jurisdiction of Samburu County Government, Ministry of Energy and Petroleum, Ministry of Lands, Housing and Urban Development and Ministry of Transport and Infrastructure and other relevant Authorities.
3. Ensure that all waste material and debris is collected, re used and where need be disposed off as per the Environmental Management and Coordination (Waste Management) Regulations 2006.
4. Ensure strict adherence to the provisions of Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.
5. Ensure strict adherence to the Occupational Safety and Health Act (OSHA), 2007.
6. Ensure that construction workers are provided with adequate personal protection equipment (PPE) , sanitary facilities as well as adequate training.
7. Emphasis must be given to control of dust, noise, vibration, occupational hazards and provision of sanitary facilities to the construction workforce.

Note: "you" in the item No. 1 stands for "Rural Electrification Authority".

Question 7

Are any of the following areas located inside or around the project site?

Yes No Not identified

If yes, please mark corresponding items.

- National park, protected area designated by the government (coast line, wetlands, reserved area for ethnic or indigenous people, cultural heritage), and areas being considered for national parks or protected areas
- Virgin forests, tropical forests
- Ecological important habitat areas (coral reef, mangrove wetland, tidal flats)
- Habitat of valuable species protected by domestic laws or international treaties
- Likely salts cumulus or soil erosion areas on a massive scale
- Remarkable desertification trend areas
- Archaeological, historical or cultural valuable areas
- Living areas of ethnic, indigenous people or nomads who have a traditional lifestyle or special socially valuable areas

7



Question 8

Does the project have adverse impacts on the environment and local communities?

Yes

No

Not identified

Reason:

Solar PV is a silent technology and does not emit green house gases.

A handwritten signature in black ink, appearing to read "Samer".

Question 9

Please mark related environmental and social impacts, and describe their outlines.

- | | |
|--|---|
| <input type="checkbox"/> Air pollution | <input type="checkbox"/> Involuntary resettlement |
| <input type="checkbox"/> Water pollution | <input type="checkbox"/> Local economy such as employment and livelihood etc. |
| <input type="checkbox"/> Soil pollution | <input type="checkbox"/> Land use and utilization of local resources |
| <input type="checkbox"/> Waste | <input type="checkbox"/> Social institutions such as social infrastructure and local decision-making institutions |
| <input type="checkbox"/> Noise and vibration | <input type="checkbox"/> Existing social infrastructures and services |
| <input type="checkbox"/> Ground subsidence | <input type="checkbox"/> The poor, indigenous of ethnic people |
| <input type="checkbox"/> Offensive odors | <input type="checkbox"/> Misdistribution of benefit and damage |
| <input type="checkbox"/> Geographical features | <input type="checkbox"/> Local conflict of interests |
| <input type="checkbox"/> Bottom sediment | <input type="checkbox"/> Gender |
| <input type="checkbox"/> Biota and ecosystem | <input type="checkbox"/> Children's rights |
| <input type="checkbox"/> Water usage | <input type="checkbox"/> Cultural heritage |
| <input type="checkbox"/> Accidents | <input type="checkbox"/> Infectious diseases such as HIV/AIDS etc. |
| <input type="checkbox"/> Global warming | <input type="checkbox"/> Others () |



Outline of related impacts:

Construction Phase

- Noise and vibration: there may be minimal noise and vibration during installation works of the PV system as a result of drilling and wiring works. However this will have very minimal impact and construction will be advised to be done as per the Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.

Operational Phase

- Since the PV is system will be used to recharge cell phones for the general public as a way of ensuring sustainability, this may lead to disturbance to pupils. This can however be managed by advising that the charging room to be sited close to the gate and around 200 metres from the classrooms where members of the public can access with minimal disturbance to pupils' learning process. Limiting the time for members of the public accessing the school for cell phone charging is also advised.
- On a positive note, the PV system will help (however small) in reducing emission of green house gases in to the atmosphere thereby reducing global warming.

Question 10

Information disclosure and meetings with stakeholders

10-1 If environmental and social considerations are required, does the proponent agree on information disclosure and meetings with stakeholders in accordance with JICA Guidelines for Environmental and Social Considerations?

Yes No

A meeting was held between JICA Expert team and the local persons likely to be affected by the project. Participants were:

AFFECTED PERSONS

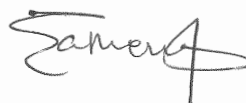
1. Mike Lenkak –Nurse in charge
2. Ms Irene-Nurse
3. Josphine Lenkak-Community health worker

JICA TEAM

1. Tsutomu Dei-Team leader, JICA Expert Team
2. Francis Mworio-Assistant Expert, Photo voltaic

10-2 If no, please describe reasons below

N/A



Tuum, Saburu County

Appendix 3. Screening Format

Name of a Proposed Project:

Project for the Establishment of Rural Electrification Model using Renewable Energy

Lot 1: Electrification of Public Boarding Primary School with Solar PV in Tuum, Samburu County

Project Executing Organization:

Name, Post, Organization and Contact Point of a Responsible Officer

Chief Executive Officer,
Rural Electrification Authority

P.O. Box 34585-00100

Tel: +254-020-4953000

+254-020-4953600

Fax: +254-20-2710944

E-Mail: info@rea.co.ke

Attention to,

Eng. Ephantus Kamweru



Signature:

Date: 24/3/2014

Check Items

Question 1: Address of project site: Tuum Primary School, Samburu County

Question 2: Outline of the project

- The project involves electrification of the school and cell phone charging.
- This involves mounting solar panels on the rooftop of the school facility to tap solar energy which is used to charge batteries before being converted to electric energy.

2-1 Does the project come under following sectors?

Yes No

If yes, please mark the corresponding items.

- Mining development
- Industrial development
- Thermal power (including geothermal power)
- Hydropower, dams and reservoirs
- River/erosion control
- Power transmission and distribution lines
- Roads, railways and bridges
- Airports
- Ports and harbors
- Water supply, sewage and waste treatment
- Waste management and disposal
- Agriculture involving large-scale land-clearing or irrigation
- Forestry
- Fishery
- Tourism

2-2 Does the project include any of the following items?

Yes No

If yes, please mark following items that the project includes.

- Involuntary resettlement (scale: households persons)
- Groundwater pumping (scale: m³/year)
- Land reclamation, land development and land-clearing (scale: hectares)
- Logging (scale: hectares)

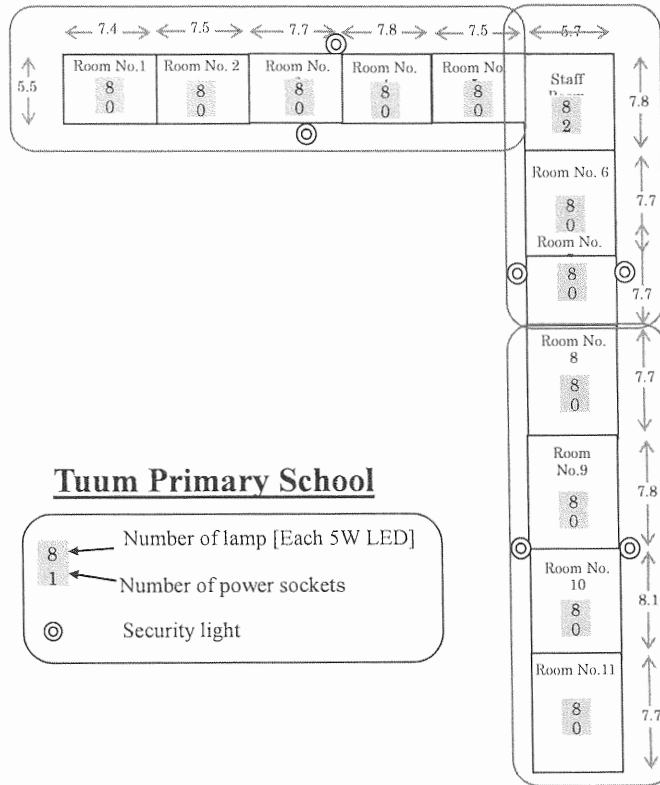


2-3 Description of the Project:
(Scale and/or Basic Information)

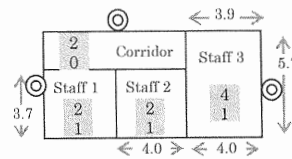
- The project involves supplying the school with electricity using photo voltaic solar technology.
- This involves mounting solar panels on the rooftop of the school facility to tap solar energy which is used to charge batteries before being converted to electric energy.
- The Direct Current (DC) from the battery will be converted to Alternate Current (AC) by an inverter.
- Fluorescent lamps will be used for lighting.
- PV size of 4.92 KW.

(See the layout plan below)

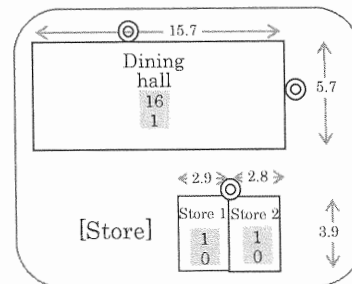
A handwritten signature in black ink, appearing to read 'Samuel', is centered on the page.



[Office Block]



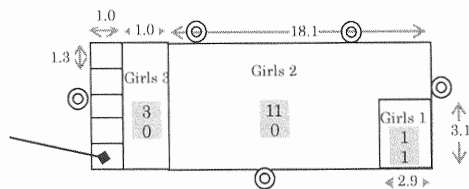
[Dining hall]



[Girl's dormitory]

Wash rooms
(1 lamp for each)

5
0



Samuel

2-4 Is the project consistent with the higher program/policy?

Yes: Please describe the higher program/policy.

(- Energy Act of 2006

- Rural Electrification Programme & Kenya Vision 2030

- Rural Electrification Master plan (REM 2009-2018)

- REA Strategic Plan 2008-2012)

No

2-5 Did the proponent consider alternatives before this request?

Yes: Please describe outline of the alternatives

(- The first alternative would be grid densification so as to supply the school with quality and affordable electricity as envisaged by the Vision 2030.

- The second alternative would be to use off-grid supply using oil fired components as stipulated in the Energy Act of 2006.)

No

2-6 Did the proponent have meetings with related stakeholders before this request?

Yes No


If yes, please mark the corresponding stakeholders.

Administrative body

Local residents

NGO

Others (School staff)



Question 3

Is the project a new one or an on-going one? In case of an on-going one, have you received strong complaints, etc., from local residents?

- New On-going (there are complaints) On-going (there are no complaints)
 Others

[]

Question 4 Name(s) of laws or guidelines:

Is Environmental Impact Assessment (EIA) including Initial Environmental Examination (IEE) required for the project according to the laws or guidelines in the host country?

- Yes No

If yes, please mark corresponding items.

- Required only IEE (Implemented, on going, planning)
 Required both IEE and EIA (Implemented, on going, planning)
 Required only EIA (Implemented, on going, planning)
 Others:

[]


Question 5 (Not Applicable)

In the case when EIA steps were taken, was the EIA approved by the relevant laws in the host country? If yes, please mark date of approval and the competent authority.

<input type="checkbox"/> Approved: without a supplementary condition	<input type="checkbox"/> Approved: with a supplementary condition	<input type="checkbox"/> Under appraisal
--	---	--

(Date of approval: _____ Competent authority: _____)

- Not yet started an appraisal process
 Others: (_____)



Question 6

If the project requires a certificate pertaining to the environment and society other than the EIA, please indicate the title of that certificate.

Already certified Required a certificate but not yet done

Title of the certificate :()

Not required

Others: (Collateral conditions for not requiring EIA procedures by NEMA)

1. Ensure that you obtain the requisite approvals from the Samburu County Government before commencement of the projects
2. Comply with the relevant principal laws, By-laws and guidelines issued for development of such a project within the jurisdiction of Samburu County Government, Ministry of Energy and Petroleum, Ministry of Lands, Housing and Urban Development and Ministry of Transport and Infrastructure and other relevant Authorities.
3. Ensure that all waste material and debris is collected, re used and where need be disposed off as per the Environmental Management and Coordination (Waste Management) Regulations 2006.
4. Ensure strict adherence to the provisions of Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.
5. Ensure strict adherence to the Occupational Safety and Health Act (OSHA), 2007.
6. Ensure that construction workers are provided with adequate personal protection equipment (PPE) , sanitary facilities as well as adequate training.
7. Emphasis must be given to control of dust, noise, vibration, occupational hazards and provision of sanitary facilities to the construction workforce.

Note: "you" in the item No. 1 stands for "Rural Electrification Authority".

Question 7

Are any of the following areas located inside or around the project site?

Yes No Not identified

If yes, please mark corresponding items.

- National park, protected area designated by the government (coast line, wetlands, reserved area for ethnic or indigenous people, cultural heritage), and areas being considered for national parks or protected areas
- Virgin forests, tropical forests
- Ecological important habitat areas (coral reef, mangrove wetland, tidal flats)
- Habitat of valuable species protected by domestic laws or international treaties
- Likely salts cumulus or soil erosion areas on a massive scale
- Remarkable desertification trend areas
- Archaeological, historical or cultural valuable areas
- Living areas of ethnic, indigenous people or nomads who have a traditional lifestyle or special socially valuable areas

Tuum, Saburu County

Question 8

Does the project have adverse impacts on the environment and local communities?

- Yes No Not identified

Reason:

Solar PV is a silent technology and does not emit green house gases.

A handwritten signature in black ink, appearing to read "Samuel", is centered on the page.

Question 9

Please mark related environmental and social impacts, and describe their outlines.

- | | |
|--|---|
| <input type="checkbox"/> Air pollution | <input type="checkbox"/> Involuntary resettlement |
| <input type="checkbox"/> Water pollution | <input type="checkbox"/> Local economy such as employment and livelihood etc. |
| <input type="checkbox"/> Soil pollution | <input type="checkbox"/> Land use and utilization of local resources |
| <input type="checkbox"/> Waste | <input type="checkbox"/> Social institutions such as social infrastructure and local decision-making institutions |
| <input type="checkbox"/> Noise and vibration | <input type="checkbox"/> Existing social infrastructures and services |
| <input type="checkbox"/> Ground subsidence | <input type="checkbox"/> The poor, indigenous of ethnic people |
| <input type="checkbox"/> Offensive odors | <input type="checkbox"/> Misdistribution of benefit and damage |
| <input type="checkbox"/> Geographical features | <input type="checkbox"/> Local conflict of interests |
| <input type="checkbox"/> Bottom sediment | <input type="checkbox"/> Gender |
| <input type="checkbox"/> Biota and ecosystem | <input type="checkbox"/> Children's rights |
| <input type="checkbox"/> Water usage | <input type="checkbox"/> Cultural heritage |
| <input type="checkbox"/> Accidents | <input type="checkbox"/> Infectious diseases such as HIV/AIDS etc. |
| <input type="checkbox"/> Global warming | <input type="checkbox"/> Others () |



Outline of related impacts:

Construction Phase

- Noise and vibration: there may be minimal noise and vibration during installation works of the PV system as a result of drilling and wiring works. However this will have very minimal impact and construction will be advised to be done as per the Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations 2009.

Operational Phase

- Since the PV is system will be used to recharge cell phones for the general public as a way of ensuring sustainability, this may lead to disturbance to pupils. This can however be managed by advising that the charging room to be sited close to the gate and around 200 metres from the classrooms where members of the public can access with minimal disturbance to pupils' learning process. Limiting the time for members of the public accessing the school for cell phone charging is also advised.
- On a positive note, the PV system will help (however small) in reducing emission of green house gases in to the atmosphere thereby reducing global warming.

Question 10

Information disclosure and meetings with stakeholders

10-1 If environmental and social considerations are required, does the proponent agree on information disclosure and meetings with stakeholders in accordance with JICA Guidelines for Environmental and Social Considerations?

Yes No

A meeting was held between JICA Expert team and the local persons likely to be affected by the project. Participants were:

AFFECTED PERSONS

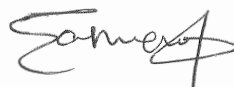
1. Gabriel Letipila –Head teacher
2. Nkestinten Lengorien-School management committee

JICA TEAM

1. Tsutomu Dei-Team Leader
2. Francis Mworira-Assistant Expert, Photo voltaic

10-2 If no, please describe reasons below

N/A



Attachment N-2 Pilot Project Details for the Environmental and Social Considerations

N-2.1 REA and NEMA Letters about Project Description

(1) Letters about Project Description

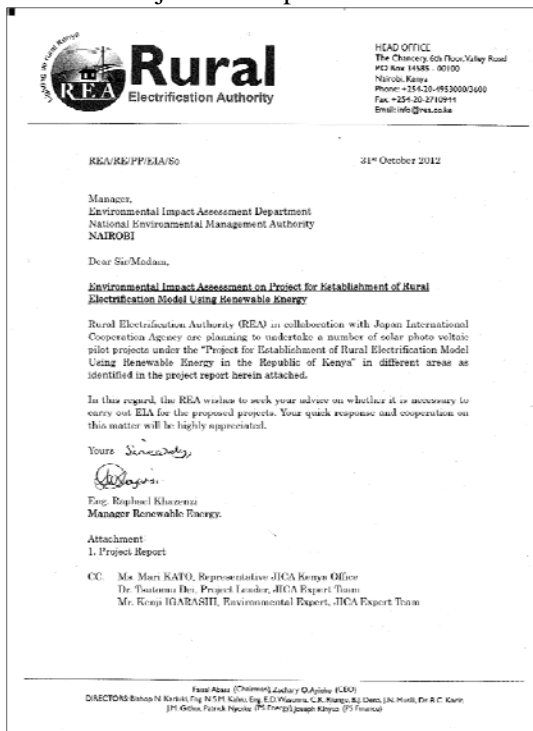


Figure N-2.1.1 REA letter to NEMA Lot 1

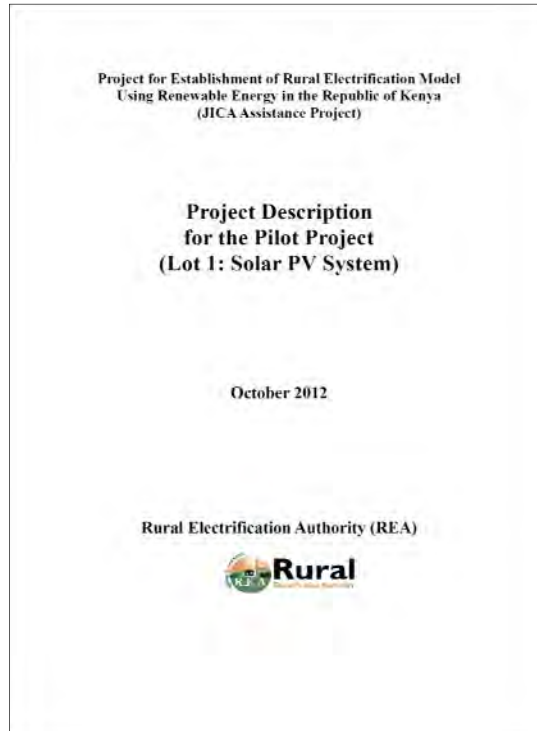


Figure N-2.1.2 Project Description Report for Lot1 Cover page

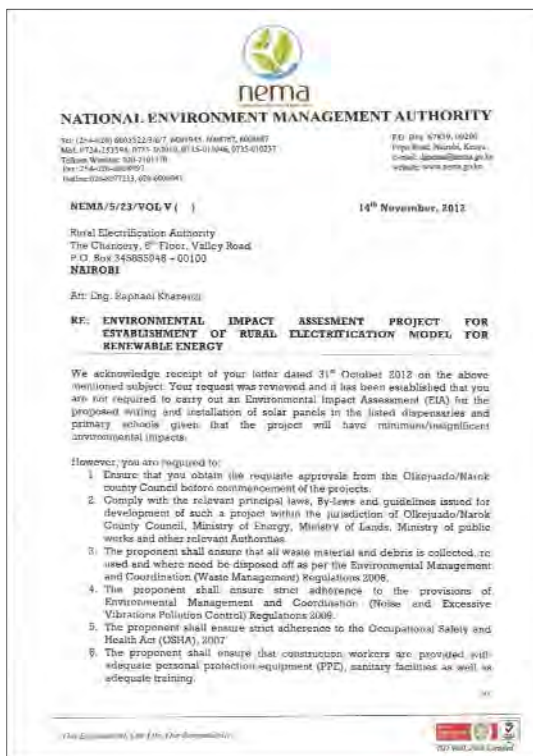


Figure N-2.1.3 NEMA letter to REA 1/2 Lot 1

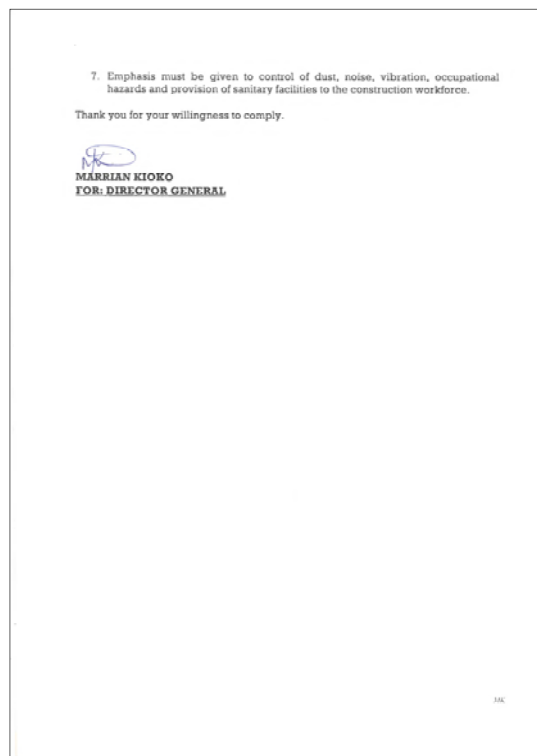


Figure N-2.1.4 NEMA letter to REA 2/2 Lot 1

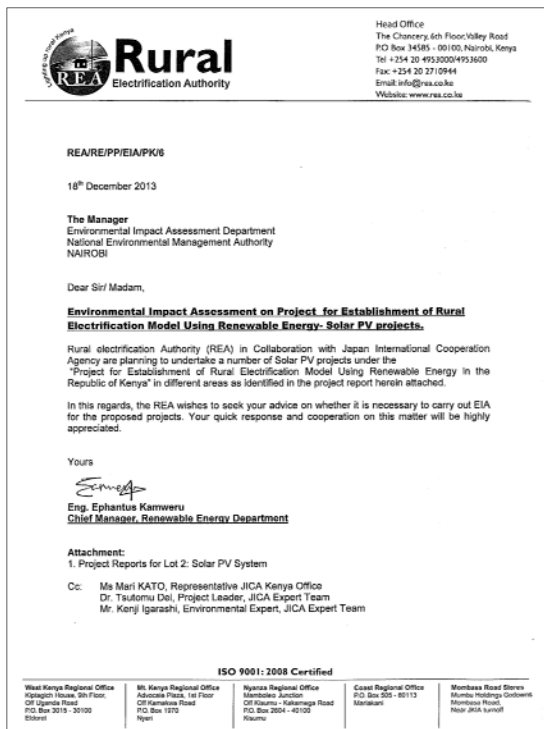


Figure N-2.1.5 REA letter to NEMA (Lot 2)

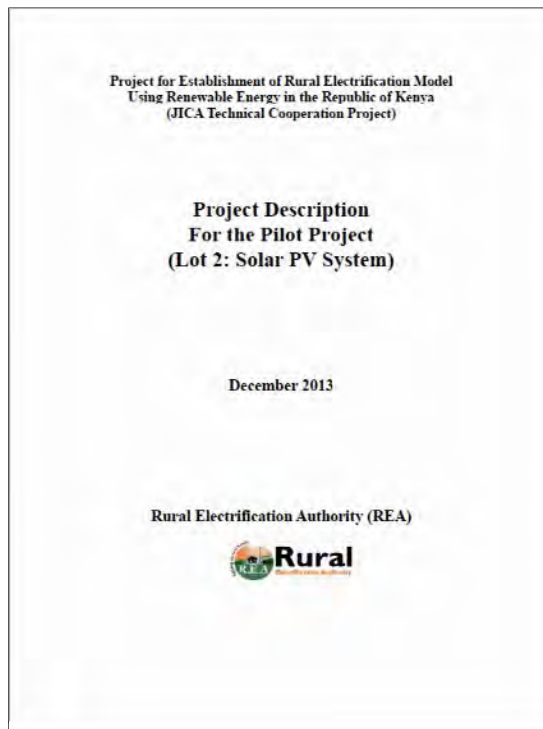


Figure N-2.1.6 Project Description Report for Lot 2 (Cover page)



Figure N-2.1.7 NEMA letter to REA (1/2) (Lot 2)

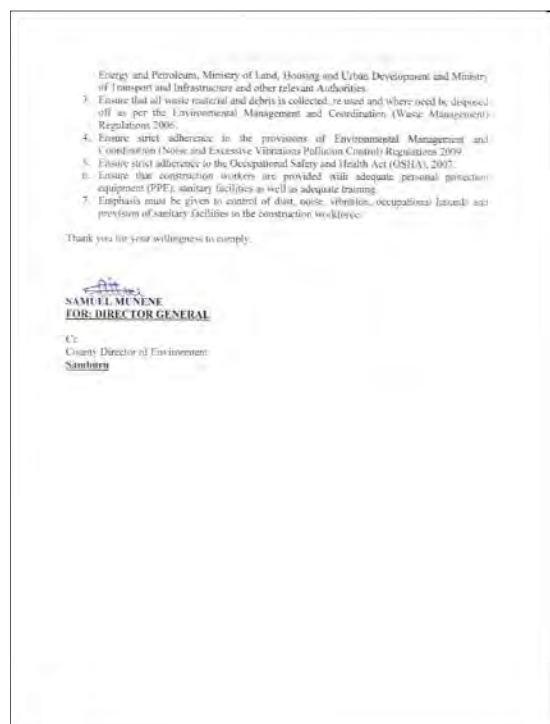


Figure N-2.1.8 NEMA letter to REA (2/2) (Lot 2)

(2) Official Letters about Size Modifications of Lot-1 and Lot-2

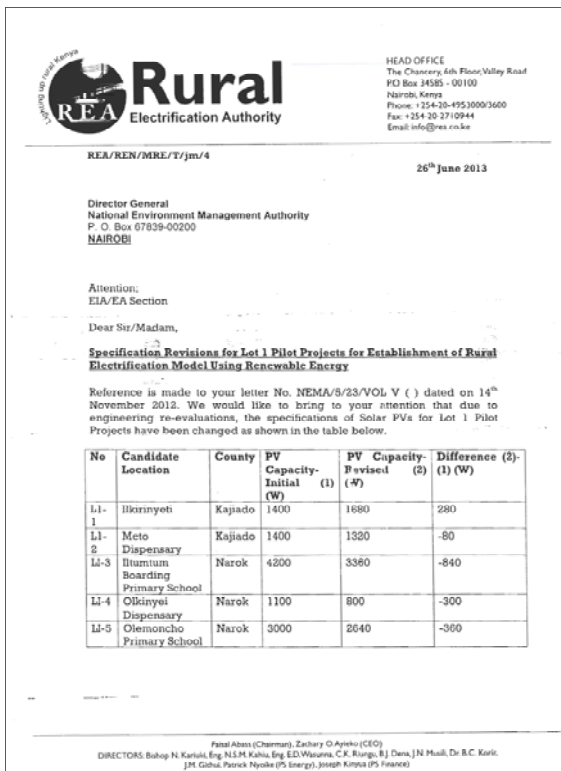


Figure N-2.1.9 REA letter to NEMA (1/2)
(Lot 1 PV size modification)

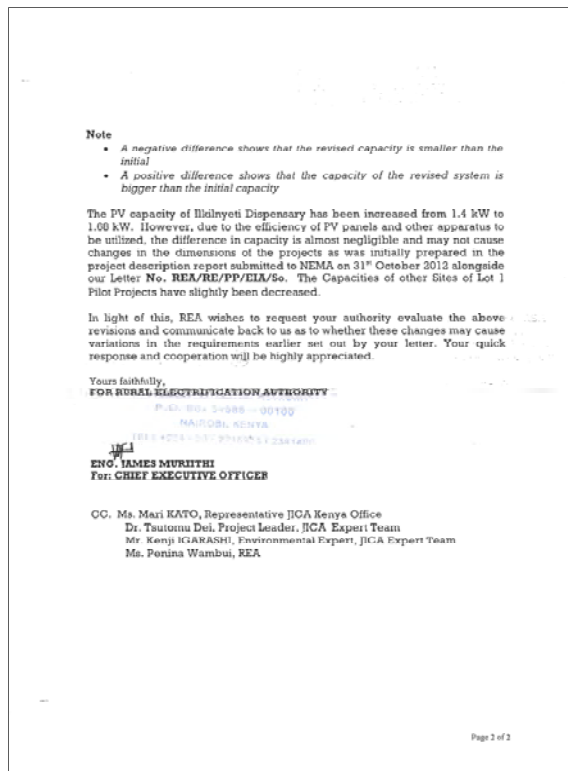


Figure N-2.1.10 REA letter to NEMA (2/2)
(Lot 1 PV size modification)

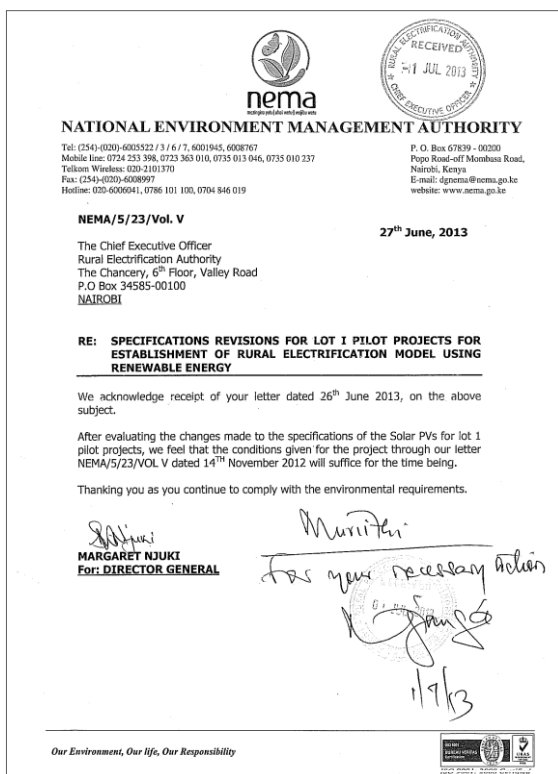


Figure N-2.1.11 NEMA reply to REA
(Lot 1 PV size modification)

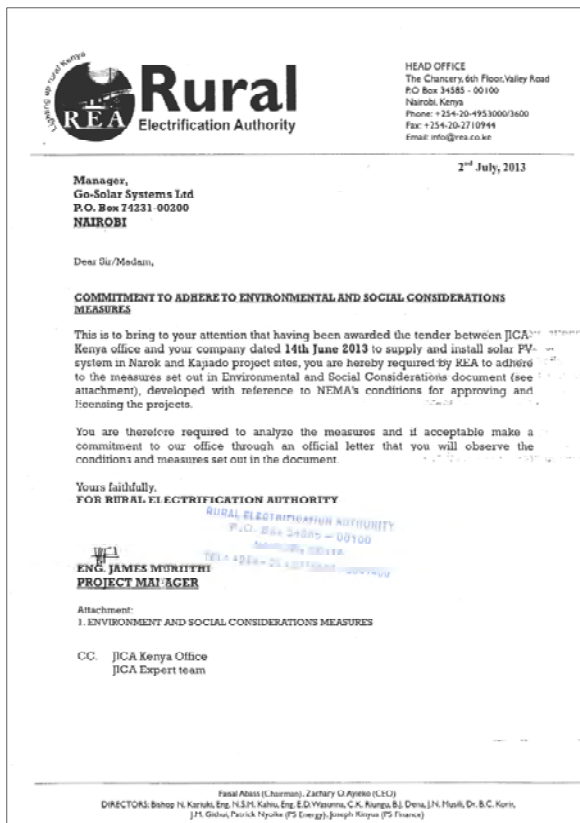


Figure N-2.1.12 REA letter to Contractor (to the Lot 1 Supplier)



Figure N-2.1.13 Contractor reply to REA (from the Lot 1 Supplier)



Figure N-2.1.14 REA letter to Contractor (1/3) (to the Lot 2 Supplier)

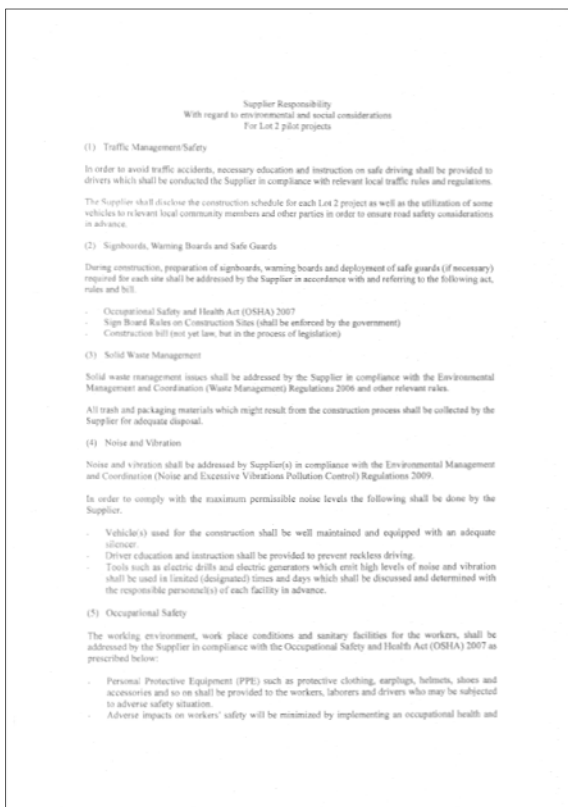


Figure N-2.1.15 REA letter to Contractor (2/3) (to the Lot 2 Supplier)



Figure N-2.1.16 REA letter to Contractor (3/3)
(to the Lot 2 Supplier)

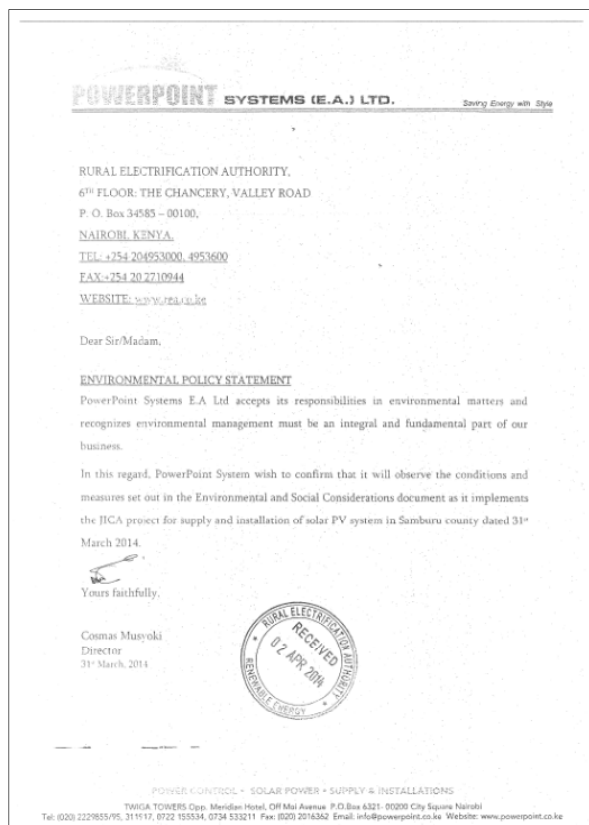


Figure N-2.1.17 Contractor reply to REA
(1/2) (from the Lot 2 Supplier)

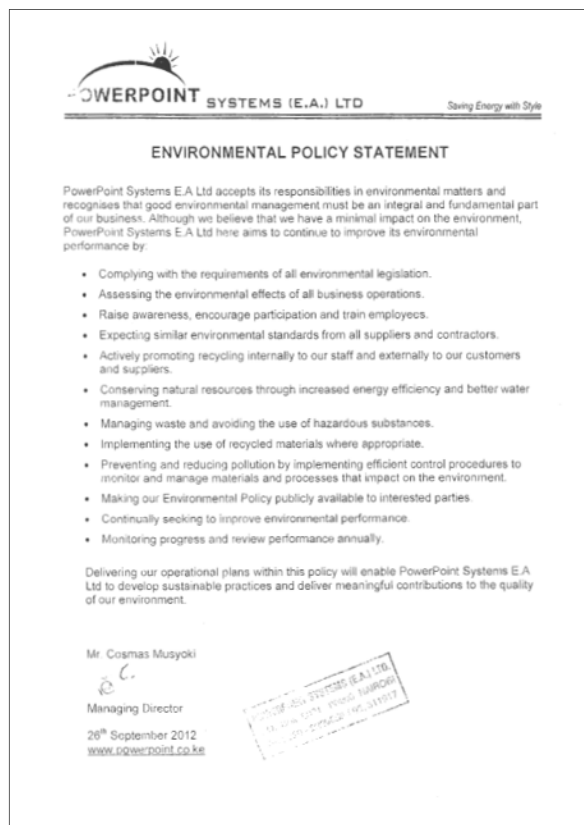
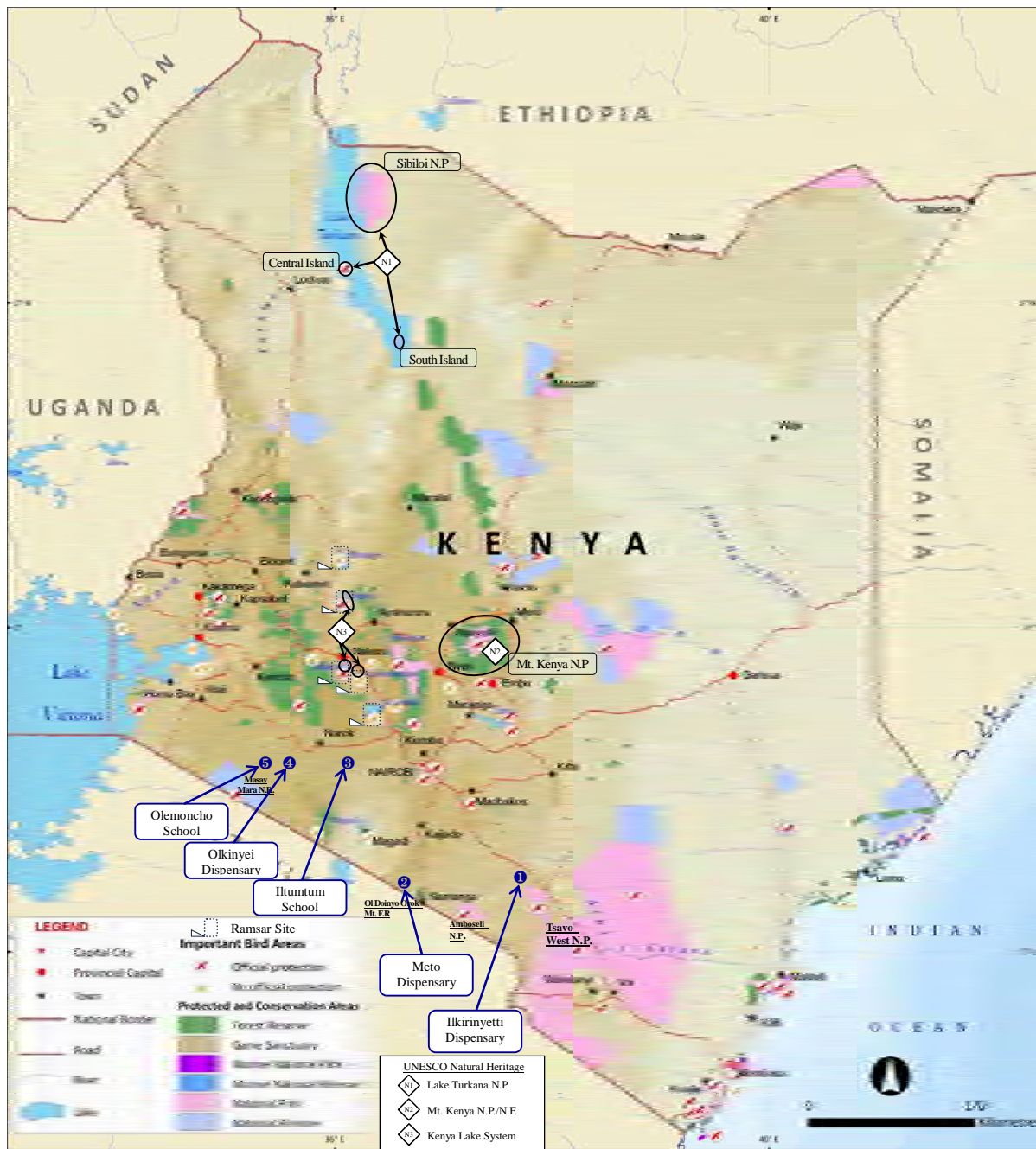


Figure N-2.1.18 Contractor reply to REA
(2/2) (from the Lot 2 Supplier)

N-2.2 Maps of Protected and Conservation Areas and Archaeological, Cultural Sites



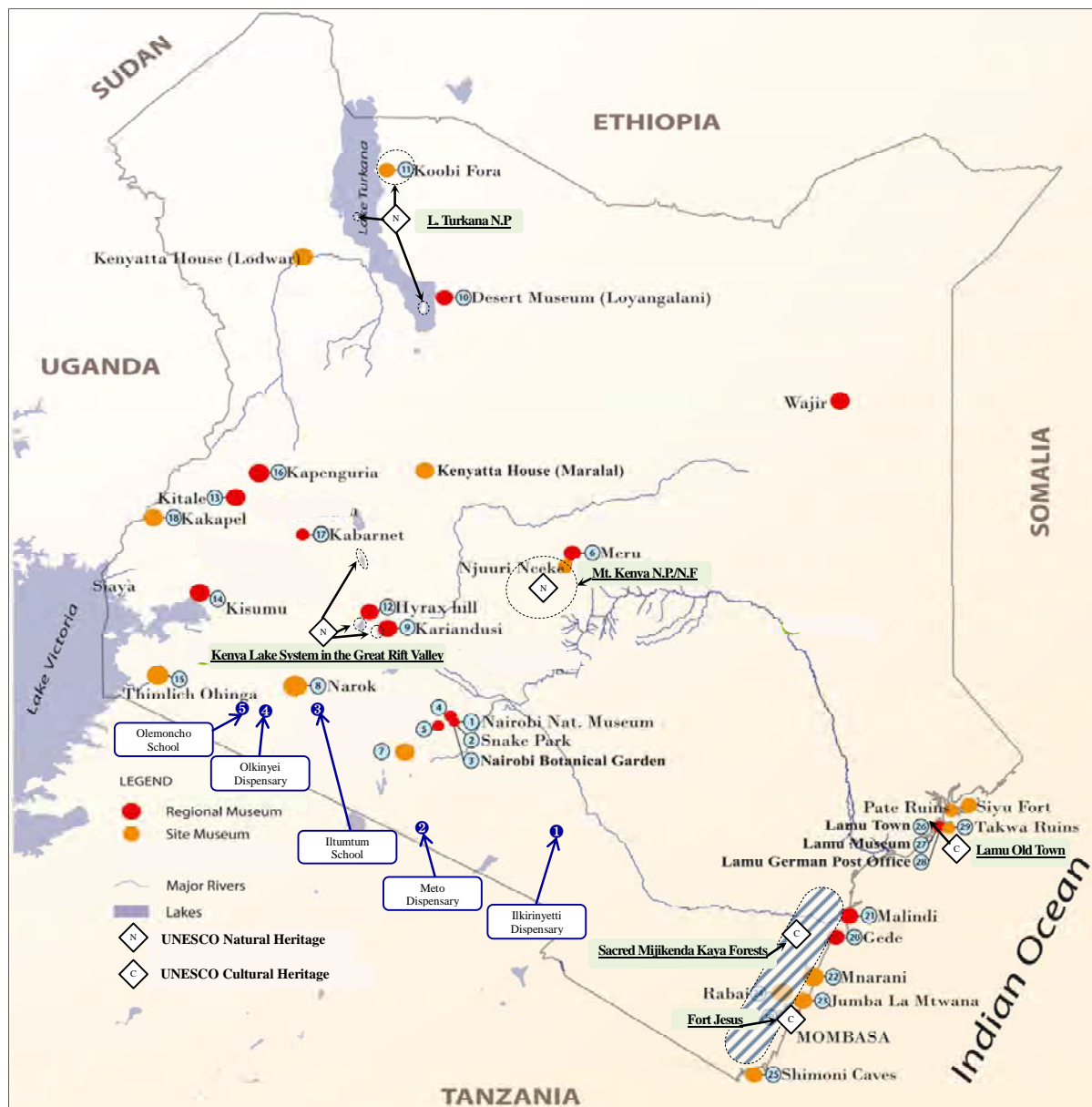
(Base Map; KWS 2010)

Note1; 1-5 shows locations of the Pilot Project of Lot 1

Note2; N.P.: National Park, N.R.: National Reserve, N.F.: Natural Forest

Source: Kenya State of the Environment and Outlook 2010, 2011 NEMA (amended and modified by the JICA Expert Team)

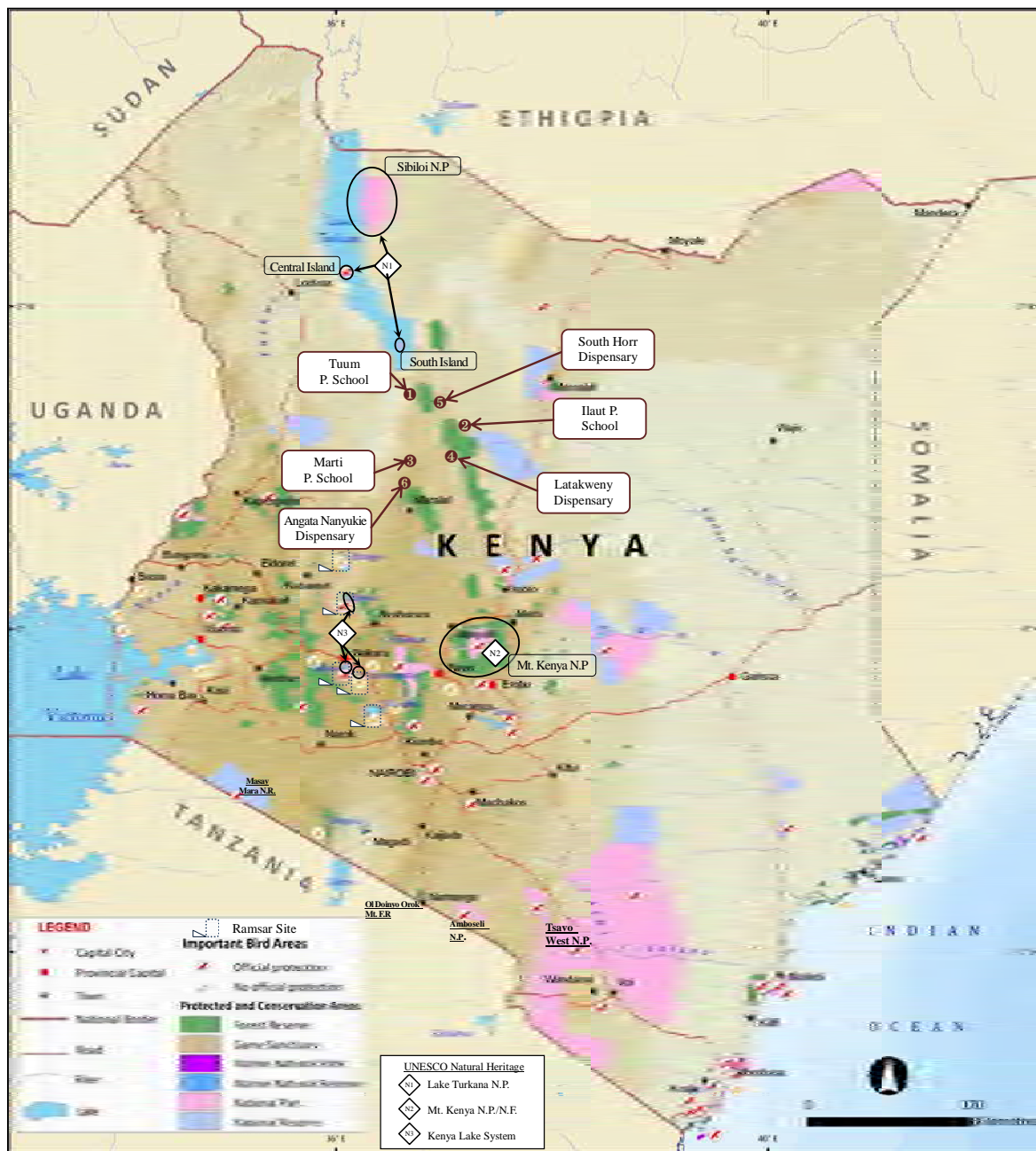
Figure N-2.2.1 Protected and Conservation Areas showing approximate locations of Lot 1



Note1; 1-29 see Table N-4.2.4 of Attachment N-4, 1-5 shows locations of the Pilot Project of Lot 1
 Note2; N.P.: National Park, N.R.: National Reserve, N.F.: Natural Forest

Source: Base Map; National Museums of Kenya (<http://www.museums.or.ke/content/view/248/137/>) modified by the JICA Expert Team

Figure N-2.2.2 Archaeological, Cultural Sites and Facilities showing approximate locations of Lot 1



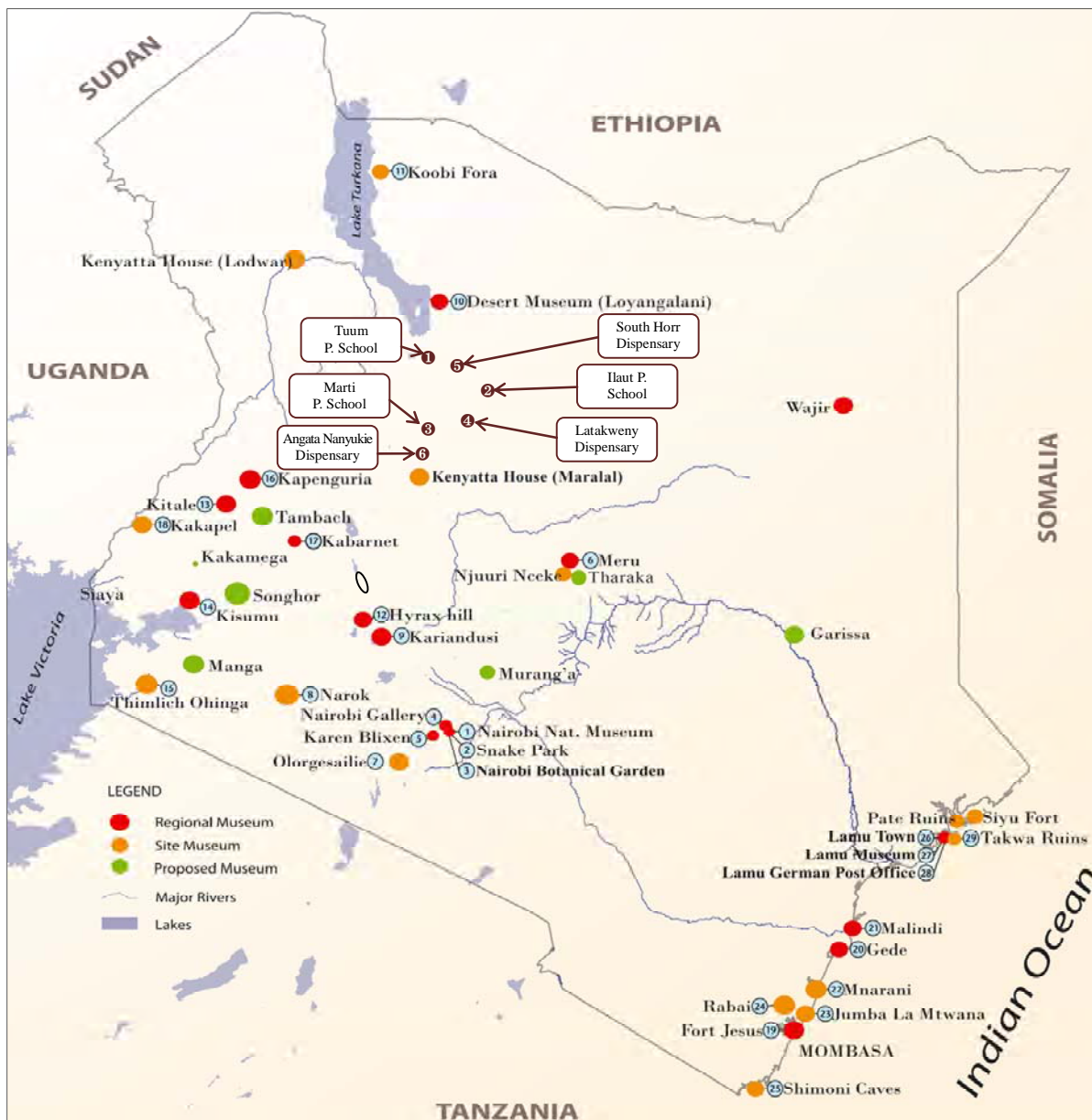
(Base Map: KWS 2010)

Note1: 1-6 show locations of the Pilot Project of Lot 2

Note2: N.P.: National Park, N.R.: National Reserve, N.F.: Natural Forest

Source: Kenya State of the Environment and Outlook 2010, 2011 NEMA (amended and modified by JICA Expert Team)

Figure N-2.2.3 Protected and Conservation Areas showing Approximate locations of Lot 2



Note1: 1-29see Table N-4.2.4 of Attachment N-4
 Note2: 1-6 shows locations of the Pilot Project of Lot 2
 Note3: N.P.: National Park, N.R.: National Reserve, N.F.: Natural Forest

Source: Base Map; National Museums of Kenya (<http://www.museums.or.ke/content/view/248/137/>) modified by the JICA Expert Team

Figure N-2.2.4 Archeological, Cultural Sites and Facilities showing approximate locations of Lot 2