EXECUTIVE SUMMARY

This report presents the Environmental and Social Impact Assessment ("ESIA") for the construction and operation of an ammonia-urea production plant to be located within Ossimo’s industrial park at Ologbo, Edo State, Nigeria.

The Project will entail the relocation of Agrium’s Kenai Nitrogen Operation ("KNO") Plants No. 4 (Ammonia), No. 5 (Urea) and No. 6 (Utilities). The KNO ammonia-urea Plants have design capacities of 1,840 MTPD and 1,760 MTPD respectively. The Agrium KNO Plant (the second largest ammonia urea plant in the US) is a world-class facility, which was shut down in 2007 due to lack of natural gas feedstock supply at its current location.

The Project will relocate the Agrium KNO Plant to create a similar world-class ammonia urea plant in Nigeria. The KNO Plant relocation will lead to significant savings in capital expenditures and construction schedule vs. a green-field project of similar dimensions whilst utilizing a world-class asset to enhance global production of urea - a strategic commodity.

The key rationale for the Project are as follows:

1. **Promoting Food Security** – to address the chronic lack of fertilizer supply to farmers in Sub-Saharan Africa and sustain food production globally
2. **Reducing Gas Flaring** – to assist the reduction of gas flaring in Nigeria which has continued to create a huge environmental hazard as a major contributor to greenhouse gas ("GHG") emissions
3. **Enhancing Human Capacity Development** – the Project will create over 1,000 jobs during the construction phase both around Kenai, Alaska, US and Ologbo, Edo State, Nigeria and circa 300 jobs during the operations phase
4. **Economic and Social Development** – the Project will significantly enhance the economy and the social development of the local region.

Fertilizer application in Africa and Sub-Saharan Africa, in particular, is the lowest in the world by a significant margin. The IFDC reports that fertilizer consumption in Sub-Saharan Africa in 2005/2006 was 7.1 kg/hectare compared with 188 kg/hectare for Western Europe and 202.3 kg/hectare for Asia.

Natural gas is the primary feedstock for nitrogen fertilizer (ammonia production) and accounts for up to 95% of the total production cost of ammonia in high-cost regions and approximately 50% in low-cost regions. On average, ammonia producers require 35 MMBTU of natural gas to produce one MT of ammonia. Nigeria has one of the largest reserves of natural gas in the world, currently estimated at approximately 185 TCF.

Nigeria is the second largest gas flaring country in the world, as identified by the Global Gas Flaring Reduction ("GGFR"), a public-private initiative led by the World Bank. Currently Nigeria is flaring over 2 BCF of natural gas per day, equivalent to 20 times the feedstock requirement for the Project, and constituting a severe environmental hazard. Gas flaring
has been identified as a major contributor to global warming, as methane (the main constituent of natural gas) is a 21 times more potent GHG than carbon dioxide¹.

The new Ossiomo ammonia-urea Plant will be a like-for-like facility as the Agrium KNO plant. In essence the layout, plot plan and facilities will match the KNO facility which was designed and operated for over 2 decades in accordance with the regulations of the US EPA as well as other relevant US and Alaska State regulations. So the plant will meet and adhere to the international best practice and standards for occupational and public health and safety.

The KNO plant will be modernized in 2 key areas:

1. **Conversion from Analogue to a Digital Control System** – the evolution of digital control systems have significantly enhanced the operation and reduced accidents at petrochemical plants and ammonia-urea plants, in particular over the last decade as it mitigates operator errors and ensures timely plant automatic shut-downs in emergency situations

2. **Installation New Urea Granulation Plant** – the KNO drum urea granulator will be replaced by a state-of-the-art fluidized-bed granulator – this is significant as the urea granulator is the most significant source of ammonia, urea and particulate matter emission in ammonia-urea plants.

The Project Sponsors are passionate about safety. The Ossiomo Plant will adopt the safety, training standards and methodologies of the Agrium KNO plant appropriately updated and modified to reflect local conditions. This will include the start-up, operations, shut-down and emergency shut-down procedures.

The Project Manager for the Project will be a leading US engineering contractor with global construction experience.

In addition, the Plant will be operated and maintained by a major US engineering company - some of the operators proposed for the Plant have historic experience operating and maintaining the Agrium KNO plant.

Furthermore the Plant will continue to be supported by the process licensors who provide the intellectual property for the design, construction and operation of petrochemical plants around the world.

The new plant will continue the licensing arrangement with Casale SA in respect of the ammonia plant - Casale has provided support to the Agrium KNO plant over the last 20 years. Casale, based in Switzerland, is one of the oldest companies active in ammonia production since 1921. To date, Casale has designed and licensed over 150 ammonia reactors.

¹ United States Energy Information Administration
Casale is the licensor of the ammonia converter, which is a very specialist high temperature and high pressure vessel. As such, Casale will assist in ensuring that the specialist equipment is operated, monitored and maintained to the best international standards.

The new plant will continue the licensing arrangement with Stamicarbon BV in respect of the urea plant - Stamicarbon has provided support to the Agrium KNO plant over the last 20 years. Stamicarbon, based in the Netherlands, is the global leader in urea plant licensing and its experience and expertise in the sector spans over 60 years. To date, Stamicarbon has designed and licensed over 250 ammonia reactors.

The objectives of the ESIA are to assist with Project development, meet the relevant regulatory requirements, assist in ensuring environmentally sound implementation of the Project; provide investors and financing institutions with an insight into the resource dimensions and constraints, provide a forum for local stakeholders to gain a good understanding of the rationale and plans for Project, as well as provide a baseline for the management of information including monitoring and review requirements based on this ESIA.

The Project will utilize the KNO equipment to design, engineer, construct, commision and operate a similar-sized production facility in the first phase. The plan is to expand the plant to circa 3,500 MTPD urea plant in the second phase of the Project.

The marketing plan entails the sale of 50% of the Plant’s urea production in the local (Nigerian) market with the balance 50% sold on the international markets (Sub Saharan Africa, Brazil, Western Europe and US East Coast). Agrium will be the international off-take marketing partner for the Project based on a 10-year off-take contract.

The regulatory framework for the ESIA is described in Section 2 of the report, including but not limited to: the applicable national (Nigerian) legislation; typical lender requirements adhering to the Equator Principles (“EP”) and International Finance Corporation (“IFC”)/World Bank guidelines.

Section 3 of the ESIA report provides a detailed description of the Project including the current KNO Plant operating permits. A 3-D plot plan of the relocated KNO plant is shown as Figure 3.1. Section 3 provides a full technical description of the process plants along with the environmental impacts during the construction and operation phases of the Project.

A quantitative assessment of the plant operating risks including the KNO Plants 4, 5 and 6 HAZOP study and subsequent Plant Hazard Analysis Revalidations are described in Section 4.

The existing environment at the Project site (baseline data) is described in Section 5, including a detailed literature review. The baseline assessments include a terrestrial survey, noise measurements within the site and surrounding areas, ambient air quality measurements and groundwater sampling and analysis. The baseline studies also include
studies relating to the human environment and cultural heritage.

Analysis and considerations for Project alternatives are described in Section 6, which includes assessments of the "no action" alternative, alternative sites, and alternative design and technologies. The environmental impact analysis is detailed in Section 6, including an exhaustive classification of the potential positive and negative impacts of the Project. The significant negative impacts mainly result from incremental vehicular traffic for construction materials and personnel during the construction phase and for the transport of the urea product during the operation phase of the Project. Other significant potential negative impacts include the possibility of fire and explosion during the operation phase of the Project. Significant and extensive positive socio-economic impacts are expected during both construction and operational phases of the project.

Mitigation measures required to eliminate/reduce the negative impacts are discussed in Section 9. Appropriate mitigation procedures will ensure that any residual environmental impacts will be limited and statistically insignificant. For all potential accidental events (fire, explosion, and releases), a detailed emergency response plan will be put in place to immediately respond to any such event and all employees will be appropriately trained to implement the response plans in the event of such emergency.

The KNO plant has operated successfully for several years with minimal incidents whilst adhering to very high EHS standards and international best practice under United States and Alaska State Laws and environmental legislation – the Project is designed to continue to meet the standards at KNO.

Ossiomo has and continues to have significant engagement and dialogue with the principal stakeholders around its industrial site including the Federal Ministry of Environment, The Edo State Government, the Benin Traditional Council and the local community to communicate its strategic development plans. In particular, public meetings have been held to present and describe plans for the ammonia urea production plant at the site.

The Project Environmental Management Plan (“EMP”) is discussed in Section 10, which represents a framework Environmental Management System (“EMS”), to provide a process that ensures environmental statutory compliance, consistency with external standards and promotes an effective environmental management at the plant during the construction and operational phases of the Project. The EMP also presents a framework and recommendations for assessing environmental effects and setting targets, procedures and procedural review, emergency preparedness, community partnerships, reporting, auditing and management review.

The environmental monitoring plan (including environmental monitoring, socio-economic monitoring and documentation) is described in Section 11.

There are currently no major plants or industrial facilities within at least a 30KM radius of the plant site. There are 2 flow-stations within 10KM of the Project site. These flow stations are currently flaring approximately 45 MMSCF/D and 90 MMSCF/D of natural gas.
The Sponsors expect that start-up of the ammonia-urea plant will provide the scope for these operators to utilize the natural gas currently being flared thus minimizing the current severe environmental impacts of gas flaring from these facilities. The Project’s cumulative impact on the local road infrastructure is projected to be about 10% during construction and about 37.5% during operations. The Project’s cumulative impact on other aspect of infrastructure such as aviation, marine facilities etc are projected to be minimal but positive for the socio-economic development of the local community. In summary, on balance, the cumulative impact of the Project on the immediate environment is positive. The environmental cumulative impact assessment is described in Section 12.

A summary of the key issues detailed in the ESIA are as follows:

**Forecast Plant Emissions vs. IFC GUIDELINES For Nitrogenous Fertilizer Manufacturing Plants (Air Emissions)**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>IFC GUIDELINE</th>
<th>Plant Emission (Forecast)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ammonia Plant</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NH₃</td>
<td>50 mg/Nm³</td>
<td>50 mg/Nm³</td>
</tr>
<tr>
<td>NOₓ</td>
<td>300 mg/ Nm³</td>
<td>300 mg/ Nm³</td>
</tr>
<tr>
<td>PM</td>
<td>50 mg/ Nm³</td>
<td>50 mg/ Nm³</td>
</tr>
<tr>
<td><strong>Urea Plants</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urea (prilling/granulation)</td>
<td>50 mg/ Nm³</td>
<td>50 mg/ Nm³</td>
</tr>
<tr>
<td>NH₃ (prilling/granulation)</td>
<td>50 mg/ Nm³</td>
<td>50 mg/ Nm³</td>
</tr>
<tr>
<td>PM (prilling/granulation)</td>
<td>50 mg/ Nm³</td>
<td>50 mg/ Nm³</td>
</tr>
</tbody>
</table>

**Forecast Plant Effluent discharges vs. Effluents Levels for Nitrogenous Fertilizer Manufacturing Plants (IFC GUIDELINES)**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>IFC GUIDELINE</th>
<th>Plant Emission (Forecast)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ammonia Plants</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>6-9</td>
<td>6-9</td>
</tr>
<tr>
<td>Temperature Increase</td>
<td>&lt;3°C</td>
<td>&lt;3°C</td>
</tr>
<tr>
<td><strong>Urea Plants</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NH₃</td>
<td>5 mg/l</td>
<td>5 mg/l</td>
</tr>
<tr>
<td>Total Nitrogen</td>
<td>15 mg/l</td>
<td>15 mg/l</td>
</tr>
<tr>
<td>TSS</td>
<td>30 mg/l</td>
<td>25 mg/l</td>
</tr>
</tbody>
</table>
The Project has been developed utilizing the framework Performance Standards on Social and Environmental Sustainability developed by IFC/World Bank Group.

Summaries of the issues relating to the applicable Performance Standards are as follows:

**Performance Standard 1: Social and Environmental Assessment and Management System**

The relevant social and environmental performance of the Project have been assessed and the environmental management system will be implemented throughout the Project lifecycle drawing on established international business and industry best practice.

The Project Company will also ensure that employees and trainees with responsibility for activities relevant to the Project’s social and environmental performance have the knowledge and skills to perform their functions.

The local/host community has already been engaged and has been fully involved via the public notification process.

**Performance Standard 2: Labor and Working Conditions**

The Project Company will establish and maintain labor and working conditions consistent with Nigerian Law and the relevant current International Labor Organization and United Nations international conventions.

In particular, the Project Company will provide and promote safe and healthy working conditions to protect and promote the health of workers.

Human resource and employment policies will be consistent with the size and nature of the petrochemical plant operation.

**Performance Standard 3: Pollution Prevention and Abatement**

The KNO plant operated within the strict environmental guidelines applicable under the Laws of the United States and the State of Alaska. The Project execution philosophy is to relocate the KNO plant and to operate essentially under the same framework as the plant is currently operating under in Alaska.

Plant emissions will be similar and in some cases, such as wastewater disposal, better than the current standards being achieved in Kenai, Alaska. The key plant emissions categories applicable to the Project are as follows:
- air emissions
- wastewater
- hazardous materials
- wastes
- noise

The IFC guidelines applicable to Nitrogenous Fertilizer Production will also guide the relocation, construction and operation of the plant.

**Performance Standard 4: Community Health, Safety and Security**

The Project's site and facility design have been structured to avoid/minimize potential risks/impacts to the health, safety and security of the community.

The host community appreciates the prospective social and economic benefits of the Project and as such, have been supportive of the Project’s Sponsor’s efforts to develop this facility.

**Performance Standard 5: Land Acquisition and Involuntary Resettlement**

This is not applicable to the Project as the Project site is wholly owned by Ossiomo. The site has been fully permitted for this Project.

There is currently no activity at the site and therefore there will be no displacement/resettlement of persons or population groups.

**Performance Standard 6: Biodiversity Conservation and Sustainable Natural Resource Management**

The Environmental and Social Impact Assessment includes the potential impact of the Project on the variety of life forms at the site and develop strategies for minimizing adverse impacts to the biodiversity in the Project’s area of influence. Based on the biological survey of the site, there are no endangered or threatened species or critical habitats in or near the project site. In the unlikely event that any endangered or threatened species are encountered during the plant construction program, immediate steps will be taken to isolate the area and measures taken to protect any such species and revisions to the site and plant design will be implemented, if necessary.
**Performance Standard 7: Indigenous Peoples**

There are no “Indigenous Peoples” in the Project area.

**Performance Standard 8: Cultural Heritage**

There are currently no known tangible or intangible forms of cultural heritage at the site.

**GHG Analysis**

The plant is designed for a 100% conversion of ammonia to urea so there will be minimal CO$_2$ emission or losses from the process gas.

So the primary sources of GHG will be from the utilities mainly the power plants. The GHG emissions from the utilities are estimated at 377,000 MT CO$_2$eq.

In comparison, the plant is projected to utilize about 61 MMSCF/D of feedstock natural gas most of which would otherwise have been flared - this equates to about 9.5 Million MT CO$_2$eq.

The plant operators will actively plan to utilize part of the CO$_2$ emissions from the utilities (boilers, solar generators) in the urea plant.

**Fresh Water Intake/Water Withdrawal Rates**

Fresh water for process, cooling and potable water will be drawn from the nearby Ossiomo River. Total water consumption for the plant is estimated at 1,000 M$^3$/hr. The Benin-Owena River Basin Authority monitors the major rivers around Edo State and Ondo State. The River Basin Authority has advised that the “Run-off”$^2$ of the Ossiomo River at the Project site is 80 – 110 M$^3$/sec all year, corresponding to the dry season and the rainy season respectively. In essence water withdrawal by the Project will correspond to 0.25% to 0.35% of the “Run-Off” of the Ossiomo river at the Project site.

**Potable Water**

The Plant’s specification includes the design, procurement and construction of new equipment for the treatment of the water drawn from the Ossiomo river to provide potable water for the whole Plant. The facilities will include 2 potable water supply pumps, water filtration, disinfection and purification equipment as well as a clean water tank. The domestic water consumption for the whole Plant is around 10 m$^3$/h.

**Sewage Treatment**

The EPC scope includes the design, engineering, procurement and construction of a sewage collection, treatment and pumping system. The sewage collection and disposal systems

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$^2$ The river “Run-off” is the extent of the renewable water flowing into the river or the occurrence of surplus water exceeding the limit or capacity of the river. River “Run-off” includes all the water coming in directly to the hydrological network during rainfall or snowmelt plus groundwater from the upper aquifer flowing into the river throughout the year.
will transport sewage to the sewage treatment plant prior to discharge to surface waters. The overriding objective is to protect public health and prevent disease. Temporary sewage treatment facilities will be installed to accommodate the sewage treatment requirement during construction. These temporary facilities will be supplanted by the extensive plant-wide sewage treatment facilities, which will be commissioned ahead of the process plants.

**Hazardous Waste Management**

Hazardous waste materials, such as spent catalysts, will be handed back to the suppliers for specialist disposal. All hazardous waste shipped from site will be subject to a waste manifest to track generation, transportation through licensed and approved contractors.

**Non-Hazardous Waste Management**

Non-hazardous industrial solid waste shall be stored in collection containers located within the plant site and will be appropriately identified with markings. These waste materials will be frequently removed in accordance with an agreed schedule by an approved and licensed contractor. A waste handling program should exist for all non-hazardous waste steams in order to avoid waste accumulation.

The monitoring program will ensure proper implementation of the management plan. Solid non-hazardous waste quantities and the location of (government approved) final disposal sites will be documented and the documentation kept for a minimum of 10 years.

**Infrastructure**

The gas pipeline will follow an existing Right-of-Way, which goes through the Ossiomo land. The Right-of-Way already has a gas pipeline – the Ossiomo pipeline will run parallel to the existing pipeline. So acquisition of land or displacement of local people for the gas pipeline construction will not be necessary.

There is a good road network around the plant site and the Sponsors do not envisage building any new roads at this stage.

There is only one bridge along the route from Koko port to the Project site. This bridge is on the Benin – Sapele motorway. The bridge has been inspected by the Transportation contractor and found to be in good condition. However the Transportation contractor intends to strengthen the bridge for the transport of the heavier modules.

The nearby Koko port, which will be used for import of the KNO plant and possibly for urea export is currently under-utilized. So this Project will enhance the use of the port and generate about 50 jobs for the local community. The current utilization of the port is about 10% - the project will increase the Port utilization to about 50% over the 30 months construction phase.

For telecommunication – the lines into the plant will use existing lines around the Project site area.
As noted in Section 3, the majority of the construction workers will reside within the plant construction area. About 75% of the 1,000 workers required during the peak construction period will be provided by the EPC Contractor. These workers most of whom will come from abroad will reside within the Project area which is relatively isolated from the nearest habitation areas. The plan is to commence the construction by building the office and administrative buildings for the plant. These will be converted for use as temporary accommodation for the construction workers and revert to plant personnel use post commissioning.

The balance 25% of the work force will come from Ologbo village and Benin City. There is ample work force at Ologbo and Benin City to meet the construction and operation phase requirements. This work force would not require additional accommodation facilities.

Despite the fact that this arrangement will minimize impact on the social and physical infrastructure of the local community, the Sponsors plan to put in place a comprehensive program to address community occupational health and safety including awareness about HIV and Aids-related issues.

It is important to note the EPC Contractor has just completed a similar ammonia-urea plant relocation project in Pakistan (the Fatima Project) where the same approach was adopted. The project was completed with minimal disturbance to the community.

Furthermore a Chinese energy company, Shenzhen Energy, recently completed the relocation of a 200 MW thermal power plant from Shenzhen, China to Tema, Ghana. The project was completed on time and on schedule with minimal disturbance to the community health and safety. Instead the Project has significantly enhanced the local infrastructure and energy security for the country. Our approach to the infrastructure for the Project is similar to the approach adopted for the Shenzhen Energy power project.

**Plant Hazard Analysis**

The Plant Hazard analysis is discussed extensively in Section 4. The most significant hazard in an ammonia-urea plant is the risk associated with fires and explosions from the ammonia storage and loading systems. Given that this project will not produce ammonia for sale, the critical risk area is localized to accidental releases from the ammonia tank.

The KNO ammonia tank will not be relocated. Instead a new 30,000 MT ammonia tank will be fabricated and installed. In the event of a fire arising from an accidental release, the affected area around the ammonia tank is about 2KM radius. The 2 KM contour (Figure 4.1) around the Plant ammonia tank indicates that the affected zone will be well away from community and indeed within the Ossiomo industrial park.

**Plant Fire and Explosion Precautions and Fire-fighting**

The Plant is designed with a number of features to prevent and fight any fires and explosions at the process facilities. These include:
• an independent water system to fight fires (fire water will be taken from the 10,000 M³ treated water tank designed for 6,000 M³ industrial water and 3-hour fire water
• fire extinguishers, fire pumps, fire hydrants, fire monitors, fire hoses
• addressable multi-zone fire alarm panel with smoke detectors in buildings and in electrical areas
• UV IR fire detection system for compressors and lube oil consoles
• Plant-wide high-pressure fire-water system
• 3 fire water pumps (2 pumps in use and 1 back-up) rated at 360 M³/hr and 8 MPa
• fire water ring mains
• fire hydrants with pumper connections spaced at 120 meters
• automatically activated foam sprinkler system for below the compressor/turbine deck and over the oil consoles
• a manually activated open head sprinkler system over the compressor/turbine deck and over the lube oil consoles
• a deluge automatic sprinkler system for cooling towers or hydrants with monitor nozzles around the cooling towers
• a non-halon based fire suppression system for cabinet areas and cable cellars below the cabinet areas in the main control buildings
• remote shut-off for compressor train lube oil/control oil pumps

In addition:

• the KNO flare system will be relocated to flare fugitive ammonia discharges
• perimeter ammonia monitoring system will laser monitors and sensors around the perimeter of the plant with display and alarms in the main control room
• secondary containment will be provided for all tanks and vessels that contain acid, caustic solutions, diesel, ammonia water, urea solution, UF-85 and all hazardous chemicals.

As stated above, automatically activated foam sprinkler systems will be designed and installed for areas where it would not be appropriate to use water for fire fighting.

The fire safety facilities and planning are based on the fire safety facilities in place at the Agrium KNO plant, which is consistent with US federal regulations and Alaskan state regulations. In essence, the plant’s fire fighting capabilities will be meet international standards and global standards for Good Industry Practices for ammonia urea plants.

**Hydrogen Fires and Fire-fighting**

Hydrogen is produced as an intermediate product in the ammonia process plant. Hydrogen vapors are colorless, odorless, highly flammable and burn with a pale blue almost invisible flame. As such specific measures are required to monitor and fight hydrogen fires.
Hydrogen monitors will be installed in all process areas where hydrogen will be produced.

Hydrogen fires have the flame characteristic of a torch or a jet and will originate from the point of discharge – so the most effective way to fight a hydrogen fire is to shut off the flow of gas. So automatic shut-off valves linked to the hydrogen monitors will be used to monitor hydrogen leaks and control hydrogen fires. Dry powder fire extinguishers will also be placed in the relevant process units to dampen the fires and gain control to the hydrogen leak, if necessary.

**Emergency Response Plan**

The strategies for mitigating hazardous material release and the emergency response implementation plan is outlined in Section 10.3.

The key imperatives are as follows:

- actively promote the Plant’s precautions against spills
- quickly execute the Emergency Response Plan in the event of a spill, fire or explosion
- rapid containment of any spill, fire or explosion
- clean-up
- post incident analysis - detailed analysis of the causes of every incident and institution of learning steps/modification of operating procedures to prevent future such incidents.

The key strategies for the Emergency Response Plan include:

Strategy 1: Promote public awareness of potential hazards associated with handling of toxic and hazardous substances.

Strategy 2. Promote public knowledge of how to react to accidental hazardous material release, plant fire and explosions

Strategy 3. Develop emergency response capabilities in the event of an accidental discharge of toxic or hazardous substances.

The construction phase emergency response plan will form an integral part of the Construction Phase Site Rules to be completed prior to Construction Start – this document will be issued to and adhered to by all the contractors operating at the site.

The operations phase emergency response plan will form integral part of the Plant Operations and Maintenance Manual to be completed prior to Plant Commissioning – this document will be issued to and adhered to by all the staff working at the plant.

*Occupational Health and Safety & Community Health and Safety*
Section 10.3 addresses the Occupational Health and Safety as well as Community Health and Safety in relation to the Project. All the risks and mitigation measures in relation to facility/building design, communication, training, physical hazards, chemical hazards, biological hazards, radiological hazards, traffic safety, emergency response plans, community notification and media relations are outlined in Section 10.3

**Public Participation**
The Project site is located at Ologbo near Benin City, capital of the Benin Kingdom (and also Edo State).

The Edo or Benin homeland, which is relatively homogenous, has and continues to be most significantly populated by the Edo (also known as the Bini or Benin ethnic group). The Benin kingdom was one of the most prominent in West Africa until the British took control in 1897. The Obas or King of Benin have an unbroken lineage since 1180 (refer to Wikipedia extract on Section 8).

During the 14th and 15th centuries, the Benin Kingdom and the Oba of Benin's power were at their peak and different monarchs of the dynasty controlled significant stretches of land in Africa. During this era, exquisite naturalistic bronze art was created to enhance and embody the power of the Oba. The art often depicted the ancestors in order to establish legitimacy.

The present Oba, **Erediauwa I**, is the 39th Oba of the dynasty.

Oba, **Erediauwa I**, graduated in Law and Administration from **King's College, Cambridge** in 1956.

In essence:

- The Project site is within the “Benin Kingdom” which remains highly homogenous and organized around the Oba of Benin
- The principals of Ossiomo Investments Limited (“Project Sponsor”) are indigenes of Benin with a family history that dates over hundreds of years
- The key traditional institution within the Benin kingdom is the Benin Traditional Council headed by the Oba of Benin
- In addition each major area in the Benin Kingdom is headed by a “Duke” – the Ologbo community is headed by Dr. Akenzua and they hold regular community meetings every month
- Dr. Akenzua is a physician with decades of medical practice.

So in addition to the political and administrative stakeholders namely the Federal Ministry of Environment, Edo State Ministry of Environment and Ikpoba-Okha Local Government, the key stakeholders in the host community is the Benin Traditional Council headed by the Oba of Benin.
Over the last 18 months, the Project Sponsor has fully engaged the key Project stakeholders from the inception of the concept of developing an ammonia and urea production plant at the Ossiomo industrial site.

In particular:

- The Sponsors have made several presentations to all the stakeholders about the parameters and potential impacts of the Project.
- Starting from November 2009, the Sponsors have held meetings with the Executive Governor of Edo State and the Governor’s office outlining the parameters and potential environmental and social impacts of the Project.
- The Sponsors have attended a number of community meetings at Ologbo (headed by Dr. Akenzua, the Enogie of Ologbo) outlining the parameters and potential environmental and social impacts of the Project.
- The Sponsors have held several meetings with members of the Benin Traditional Council outlining the parameters and potential environmental and social impacts of the Project.

In addition:

- The Sponsors held a series of events culminating in a public hearing was held at the Benin City, Edo State, Nigeria on the 2nd of December 2008 to present the development of an ammonia urea Project within the Ossiomo industrial site.
- The public hearing was attended by representatives from:
  - Benin Traditional Council led by the Enogie of Ologbo
  - Ikpoba-Okha Local Government
  - Edo State Ministry of Environment
  - Edo State Ministry of Land and Survey
  - Federal Ministry of Environment

At each forum, the Sponsors have outlined in detailed:

- The potential impacts resulting from the construction and operation of an ammonia urea plant at the Ossiomo site including the potential hazardous and non-hazardous chemical, fire and explosion risk.
- The potential social impacts of having an influx of workers and personnel moving into the area to construct and operate the plant.
- The potential economic impact of the Project in generating employment for the local community during construction and plant operation.
- The potential agro-economic impact of the widespread availability and application of fertilizers to the local farmers in Nigeria as the Project commences production in 2013.
- The potential impacts of significantly reducing gas flaring in the area with the capture and utilization of natural gas which is currently being flared in the area (constituting a severe environmental hazard).
At each forum, the Stakeholders have:

- Shown a good understanding of the rationale for the Project
- Shown a good understanding of the potential environmental and social impacts of the Project
- Have appreciated the steps taken by the Sponsors to mitigate the potential environmental and social impacts of the Project
- In particular, appreciated the Sponsors use of site selection and layout to mitigate the potential environmental and social impacts
- Underlined their strong expectation of the significant economic benefits the Project will bring to the community.

The support of the community and People of Benin for the Project is formally noted in a letter from the Oba Benin (King of Benin and Head of the Benin Traditional Council) dated 12 January 2010.

The letter of support from Oba, Erediauwa I is attached on the following pages.

Following the public forum the Sponsors have engaged all the stakeholders and communicate progress with the development of the Project in formal and informal discussions.
LETTER OF SUPPORT FOR THE PROJECT FROM HRM OBA EREDIAUWA, OBA OF BENIN AND THE PEOPLE OF BENIN KINGDOM

OBA OF BENIN

THE PALACE
BENIN CITY

January 12, 2010

Dr. Uwa Igiehon,
The Managing Director,
Ossimo Investment Limited,
9, Igum Street,
Benin City,
Edo State.

SUPPORT FOR THE DEVELOPMENT OF INTEGRATED PETROCHEMICAL PROJECT INCLUDING A FERTILIZER PLANT AT OLOGBO, EDO STATE

I am directed by Omo N’Oba N’ Edo, Uku Akpolokpolo, Oba of Benin to refer to the Integrated Petrochemical Project currently under development by Ossimo Investments Limited (“Ossimo”) at its site located at Ologbo, Edo State, Nigeria. The Omo N’Oba understand that this plant will produce urea fertilizer as its primary product to be marketed in Nigeria and the international markets.

Omo N’Oba recognized that there is a shortage of fertilizer in Edo State and throughout the Federal Republic of Nigeria. Addressing the shortage of fertilizer is crucial to redressing food shortage and enhancing agricultural productivity, food security and agrarian based jobs.

The Omo N’Oba is delighted to understand that Ossimo’s proposed Petrochemical Project will result in significant new foreign direct investment into Edo State. Omo N’Oba is also delighted to understand that the Project will result in significant employment opportunities for the Benin people and citizens of Edo State both during the construction as well as during the operation of the
LETTER OF SUPPORT FOR THE PROJECT FROM HRM OBA EREDIAUWA, OBA OF BENIN AND THE PEOPLE OF BENIN KINGDOM

Petrochemical Plant. Omo N’Oba also understand and anticipate that the development of the Plant will result in the attraction and creation of related Industrial Plants and Service Industries which will feed off the Petrochemical Plant thereby creating on the longer term, a significant New Petrochemical Industrial Complex for Benin and Edo State, in general.

Consequently, His Royal Majesty and the people of Benin are very interested in supporting the development of the Petrochemical Project, in full recognition of the unique opportunity that it represents to Benin people as well as to Edo State.

Whilst the Omo N’Oba recognizes that the Petrochemical Project is an Independent, Private Sector-led Commercial Enterprise, steps will be taken to facilitate the quiet enjoyment of the project site and security atmosphere necessary for the development of the Project.

The Omo N’Oba request you to consider this letter as a Letter of Support to assist with the development of the Fertilizer Plant and the Petrochemical Project.

Thank you.

O. Omosaye-Gunbadua
Secretary to the Oba of Benin