

ENVIRONMENTAL ASSESSMENT : EXTRACTS FROM THE FINAL EIA REPORT.

These extracts cover some of the most frequently asked questions about how the airport development will impact the environment and what the recommendations are to deal with them.

Need and Justification of the Project

Previous and Current Trends in the National Economy:

Agriculture.

In the past three decades the agricultural sector and in particular the banana industry have immensely contributed to the economic development of the country, providing income, employment and improved welfare for the Vincentian society. During the 1990ies, however, the sector's relative contribution to the GDP formation and export revenues has significantly declined. Between 1997 and 2004, for example, agriculture's contribution to the Gross Domestic Product (GDP) has been 10 to 13%, compared to an average of 19% in the previous 20 years. This overall trend was closely linked to a decline in the performance of the banana industry, which since 1993 has struggled to adjust to continuously changing market conditions in Europe. Despite joint attempts of the GoSVG and producers to restructure the Industry and to make it more efficient and competitive, the forces of globalisation and economic liberalisation are forcing radical changes in the economy. The lack of successful and timely economic adjustments has contributed to economic and social dislocation, most acutely among rural communities with limited access to alternative economic opportunities. The decline of the agricultural sector has badly affected rural employment and income, export earnings and investment in agriculture and has significantly contributed to increases in rural poverty in the country.

Between 1990 and 2003 the numbers of registered banana growers have declined from an estimated 7,800 to 2,309. In the same period the number of workers

depending fully or partly on bananas have fallen from about 23,000 to about 7,000. Following to the introduction of the EUREP-GAP2 the number of growers producing for export is expected to decline further. Export earnings and volumes dropped from EC\$ 89.5m in 1991 to EC\$ 28.51m in 2003 and from 62,878 t to 22,558 t respectively.

Tourism

The Tourism sector contributes approximately 15% to the GDP. Tourist receipts contributed US\$ 81.3 million to the economy in 2002. In 2002, cruise ship arrivals fell by 14.8% compared to a fall of 11.2% in 2001. Arrivals by yachts and boats dropped by 5% in 2002, following a 21.2% growth in 2001. In recent times the tourism sector has taken on greater importance especially with the threats faced by the agricultural sector in general and in particular bananas. This sector is critical to the advancement of the necessary and desirable strategic objective of economic diversification. The emerging prominence of the services sector and particularly the growing influence of tourism are features of the structural changes of the local economy over the past decade. The GoSVG's programme for the Tourism Sector is enshrined in the National Tourism Sector Strategic Plan 2000 - 2006.

During the short to medium term, it is anticipated that the challenges facing the sector will intensify, requiring much needed transformation if the industry is to maintain a competitive edge necessary for its survival.

Industry

The industrial sector employs around 8% of the workforce in SVG. Industrial activity currently contributes to about 10% to the GDP and is primarily geared on agricultural processing. The main products are flour, rice, animal feeds and packaged beans and other dried grain, followed by pasta, aerated beverages, stout beer and malt, rum, arrowroot starch, milk, fruit juices and others. The main nonfood industries produce concrete blocks and quarry products, steel rods, galvanized sheeting and plastic tubes and pipes plus a wide range of craft apparel and

texture products, cardboard cartons, plastic cups, bags and others.

The overall objective of the GoSVG is to reach high levels of sustainable growth and development while reducing poverty levels and raising social consciousness and employment levels. To achieve this objective the GoSVG has proposed to implement a program of economic diversification and measures aiming at the increase of export levels with a renewed emphasis on social development.

Tourism has the potential to become the greatest foreign exchange earner of the country. According to the conviction of the GoSVG the requisites of economic diversification

and regional and international competitiveness demand an international airport allowing for direct access from and to the markets in North America, Canada and Europe. According to the results of the MMM feasibility study (1998) it should be noted, however, that examples of other locations in the region indicate that this expansion will only occur if the appropriately priced tourism infrastructure is also available.

Project Location

The Project site is located in the southeast of mainland St. Vincent in the Mt. Pleasant – Argyle area. The site is close to the rural settlements / villages of Stubbs in the south, Calder in the west and Peruvian Vale and Biabou in the north. The proposed runway is almost south-north (02/20) orientated stretching between Stubbs Hill in the South and the Escape area near to the RC church in the north. In the south (Stubbs Bay) the distance from the coast is about 75 m. In the north the runway will end immediately at the shore, where some limited land reclamation is required .

The largest distance to the Sea is in the area of Mount Pleasant where the shore is about 600 m to the east of the runway edge

ENVIRONMENTAL CONTEXT

Geology and Topography

St. Vincent is a small volcanic island whose major feature is a series of mountains (former volcanoes or “eruptive centres”), which form a 1000 m high north-south ridge down the centre of the island. The northernmost, highest and most recent of these mountains is the active volcano La Soufrière (1178 m). Two major eruptions, which formed much of the island, have been dated to the Miocene period. The most recent eruptions were in 1718, 1812, 1902, 1971 and 1979 (UNDP, 2007).

The entire island consists of either consolidated rocks (lava flows and dykes) or unconsolidated materials (‘volcaniclastics’, including red scoria, yellow tephra, pyroclastic flow deposits, and reworked or alluvial deposits).

Numerous deeply incised valleys drain from the central ridge to the narrow coastal belt, more steeply on the leeward side of the island than on the windward side. There is very little flat land - 50% of the island’s total surface has slopes of 30° or more, and only 20% has slopes of less than 20° (Barker, 1981).

The airport site is located on the southeast coast of the island, a region of lower than average relief but still characterised by marked ridges, valleys, incised rivers and low cliffs. Generalised geological mapping of St. Vincent (Robertson, 2003) indicates that this area is comprised of lava flows and domes, yellow tephra underlain by volcaniclastics, and alluvial and reworked deposits, and it has a history of marine submergence and intermittent uplift due to tectonic shifting (Smith, 2000). Geotechnical investigations carried out during the airport design study describe extrusive igneous rock formations formed by a series of lava flows (basalts), pyroclastic materials and ash (Provincial Ingenieros, 2006). The hard lavas are expressed most dramatically in the 85 m high Mt. Coke at the southern end of the runway, where 50 m high cliffs fall to the Atlantic (photo) and at Yambou Head (80 m). Elsewhere on the site low ridges separate shallow valleys a few metres above sea level, the relative relief being some 45 m.

The shoreline of the project area reflects the underlying geology, comprising cliffs and bluffs at Mt. Coke and Yambou Head with intervening bays of black sand and/or pebbles. Wave energy is high along the Windward coastline, energised by the Northeast Trade Winds, and there is evidence of continuing erosion.

Currents and sediment movement are generally to the south.

Active erosion at Rawacou Bay

Inland, the terrain is highly dissected, and over a distance of some 7 km raises to the island's mountainous central ridge, here about 750 m. The highest peak in the vicinity of the site is Grand Bonhomme (970 m asl), approx. 7.5 km to the northwest of the airport.

Milligan Cay is a small, approximately 2.4 ha rocky island located some 2.6 km straight-line distance to the southwest of the planned southern runway edge. The maximum altitude is about 30 m / 100 ft asl. Milligan Cay was declared as a Bird Sanctuary in 1947 and is now a Wildlife Reserve administered by the Forestry Department under the Wildlife Protection Act, 1987.

Due to its shape Milligan Cay is locally known as 'Turtle Island'. The island is uninhabited and largely covered by pipe-organ cacti. As the cliffs are steep and the Sea is rough the island can only be approached by boat from the north western side. According to Forestry Department officials the island is known to be a 'significant staging habitat'³⁷ for migratory waterfowl like ducks, mallards, terns and others. However, systematic research or surveys of the avifauna of the site have never been conducted. As Milligan Cay is located in the immediate approach corridor of the future airport it has been decided to conduct a survey of bird species of the site. In SVG migratory birds mainly occur between October and March. The bird survey was therefore conducted during the peak of the migration period, starting from mid December 2007.

Petroglyphs

In St. Vincent 12 rock art petroglyph sites were reported by Dubelaar (1995) and reconfirmed by Martin (2006). Rock art is considered as one of the major cultural riches of Latin America and the Caribbean. 'In its various forms, which are often spectacular, it is found in abundance in most of the countries of the continent. It is often the only concrete expression of the complexity of the thought, beliefs and cults of lost indigenous civilizations' (Clottes, 2006).

According to Haviser, Jay and Strecker (2006) SVG probably has the highest density of rock art per unit area in the entire Caribbean region. The SVG sites are distributed coastally and along rivers, where they are engraved into andesite basalt. Most of the motives consist of faces and anthropomorphic figures which are always stylized or schematic. The petroglyphs of SVG have been the object of extensive local, regional and international scientific studies and research. In the Yambou Valley alone 6 petroglyph sites have been identified. The approximate location of the petroglyph that will be directly affected by the Project is shown below.

At this site the petroglyph is located on a vertical rock face at the end of a massive lava flow and represents a type of 'outlier' of the 'Yambou site', located higher up the valley. The site is composed of several artifacts spanning several pieces of fractioned rock. Considering the possible loss of the petroglyph through the construction of the airport runway the IADC and the Ministry of Culture have raised funds for producing two sets of life-size replica as a detailed inventory and an early safeguard measure of these important cultural assets.

'A visit was made to the petroglyph at Argyle in response to a request made since early in 2007 by the IADC and the NTSVG. The visit was made on November 19, 2007 and the author was accompanied by Mrs Kathy Martin of the IADC, Dr.

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Mathias and Mr. Tyroone Ballah of the IADC, Ms. Melanie Pörschmann of KOCKS

Consult GmbH and Ms. Aisha Samuel of the Soufrière Monitoring Unit.

Location and Previous Work: The petroglyph is located in Argyle, less than 500 metres from the mouth of the Yambou River. Robertson (2002) described the area as belonging to the Grand Bonhomme Volcanic Centre and classified the rock upon

which the petroglyph is inscribed as fine-grained lava flow. Based on a sample collected from the lava flow Robertson (2002) undertook a detailed petrological and

geochemical analysis and the rock was classified as a high-magnesium basalt.

Modal analysis of the sample indicates that it contains the following mineral assemblage: olivine (56%), silica (48%), plagioclase (19%), orthopyroxene (13%),

and clinopyroxene (11%) with trace amounts of oxides (1%). Using X-ray fluorescence the major elements in the rock were analysed and determined to consist of SiO₂ (47.84%), Al₂O₃ (15.71%), MgO (12.19%), CaO (10.83%), Fe₂O₃

(9.77%), Na₂O (2.28%) and <1% respectively of TiO₂, MnO, K₂O and P₂O.

Field Observations: The rock upon which the petroglyphs are inscribed is approximately 15 m high with an exposed rock surface extending over 30 m (see photographs below). The outcrop is a cliff face (80-90° slope) that trends towards the

east and then south, so the full extent of the exposure is not immediately visible when viewed at 'head-on'. The entire area is covered with green shrub that obscures

the topmost portion of the rock on which the petroglyphs are inscribed. The top

surface of the outcrop does not appear to contain any man-made structures. However a religious shrine has been constructed above the two lowest inscriptions. Cement possibly used in the construction of the religious shrine fills several of the joints that separate the coherent lava blocks that comprise the outcrop. The rock at the site is massive but exhibits what appear to be two dominant joint patterns or structures. The first order joint set are spaced at about 1 metre apart and oriented in three directions at approximately right angle to each other (see upper photo next page). These joints define metre-sized blocks within which the second order joint set is superimposed. The second order joint set consist of joints oriented only two directions, one of which is parallel to the direction of one of the first order joints (see lower photo next page). One of the second order joints exhibit a laminar style consisting of linear, wavy cracks separated by about 1-2 cm and extending at least 2-5cm deep. The other is oriented approximately perpendicular to the first and parallel to one of the joint sets of the first order joints'

Dr. R. Robertson, head of the Seismic Research Unit of the UWI in Trinidad

Yambou Watershed Management

The Argyle International Airport is the key item of strategic infrastructure for SVG's future economy. As such, it is essential that all risks to the uninterrupted operation of the airport be minimized. One such risk is damage to the runway as a result of flooding of the Yambou River and blocking of the river crossing. This risk is directly related to the condition of the Yambou catchment: lower watershed condition is associated with more and faster runoff and an increase in floating

debris, and vice versa. Therefore it is recommended that:

As part of Master Plan development in relation to the airport, consideration be given to establishing a permanent watershed management program in the catchment of the Yambou River.

The program should aim to (i) increase the area of the catchment under forest; (ii) increase infiltration rates under bananas by improving mulching techniques and soil condition; (iii) establish riparian strips along all streams and watercourses (to reduce sediment inputs to streams from fields); (iv) increase infiltration rates in cultivated fields by better soil management and the application of appropriate soil conservation measures; (v) apply development controls to restrict increases in the area of paved surfaces and hard standing in the catchment. To achieve these objectives the program would have to undertake a range of activities including education and awareness, training and capacity building, developing incentives for behavioural change, and improving regulatory control and enforcement. Considerable inter-agency coordination would be required.

Construction Phase Impacts

1 Introduction

The following section provides an overview of the significant adverse impacts that will or that may occur during the construction period and proposes measures to offset these impacts, or, where this is not feasible, to minimize them to acceptable levels.

.2 Impacts on the Physical Environment

Climate

Climatic effects of the Project will occur at local levels only and mainly result from the alteration of the natural topography and the construction of sealed surfaces at the expense of green spaces:

The levelling of the terrain for the construction of the runway will influence local air currents and the exposure of some inland terrain to seaborne winds, thereby

locally increasing the effects of sea blast. This will mainly be the case leeward of the existing hills in the Mt. Pleasant area and further north in the west of the runway, where the hill with the RC church will be cut down.

Air temperature and humidity content of the air will be locally influenced by the creation of large sealed surfaces in the area of airside and landside facilities at the expense of green open spaces.

Due to the scale of these effects and the absence of sensitive receptors in the potential area of influence the significance of the impact on climatic factors is generally considered as low. Therefore further investigations on this issue are not required.

Ambient Air

During clearance and earthwork operations there will be a temporary adverse impact on air quality in terms of increased dust suspension and gaseous emissions from the movement of heavy machinery and equipment. According to IADC's implementation schedule this impact will occur over a minimum period of 3 years (2008 to end of 2010), gradually shifting from south to north.

Dust will inevitably occur at and inside the construction corridor throughout that period. During the final stage of construction dust will also be generated alongside the haul route from the quarry from where aggregate for the upper layer of the runway will be obtained. Estimating a required aggregate volume of 40 to 50,000 m³ and an average volume of 10 to 12 m³ per truckload the number of trips between the mining site and Argyle will total to about 4,000 to 5,000. Assuming a 1 year period for the implementation of these works and 7 workdays per week this would correspond to an average of approximately 9 to 12 trucks a day. Dust nuisance will be an issue of concern throughout the construction period and especially during earthworks. Given the prevailing wind directions from the north east the residents living in the west of the construction site are likely to be more affected than residents in the eastern parts of Mt. Pleasant. In addition dust will be a health and safety issue for the workforce at the site.

It is assumed that dust nuisance will mainly become topical in very dry periods and wherever clearance, earthworks, material transport or construction takes

place in the vicinity of settlements. In addition, dust generation can adversely affect the health and safety of construction workers at the site.

The level and significance of dust generation and nuisance can be effectively mitigated through Regular spraying of the haul routes and the work area; covering trucks where the haulage of material involves transport on public roads; timely and regular cleaning of public roads as required.

Water for this measure can be obtained locally from the Yambou River, which is the only perennial stream of the study area.

Exhaust fumes from heavy construction equipment will temporarily adversely affect ambient air quality. The concentration of air pollutants will be highest at the immediate construction site and generally decrease with increasing distance from the source. As north eastern and eastern winds prevail emissions will be blown in direction of the sensitive receptors, i.e. the residential areas of Stubbs, Calder and Argyle. Considering the strength of the winds, the scattered nature of the neighbouring settlements and their distance from the construction corridor it is not expected that significant nuisance from air pollution will occur.

The absolute level of construction-related ambient air pollution can be minimized By Proper site management and construction organisation by good maintenance of the vehicle fleet and by immediately excluding over-aged or worn out vehicles and machinery from the construction site.

The operation of the asphalt plant is a potential source of harmful emissions, which may affect the human and the natural environment and the health of the workforce. To mitigate the health and environmental risks associated to the operation of the plant IDAC should ensure that the site of the asphalt plant will be at a minimum distance of 100 m from any watercourse or residence. Prevailing wind directions should be taken into consideration when the site is selected.

To this regard a method statement should be provided to the IADC providing all relevant information on the location and operation of the plant in accordance with the relevant standards

In addition air quality should be monitored throughout construction phase.

Soils

The implementation of the Project and the associated earthworks and construction of some 26 ha of impermeable surfaces are expected to have significant impact on soils. This impact will be long-term and irreversible and mainly affect productive soils that were previously used for agricultural purposes. The impact will be irreversible and direct as regards the construction of airport facilities and irreversible and indirect as regards the expected induced development of the wider area in the medium to long term.

During preliminary design there have been major efforts to minimize the scale of required earthworks, which has an immediate effect on cost but has also reduced the magnitude of the overall impact of the Project on soil resources.

As regards site clearance the impact on soils can generally be minimized by

Taking a phased approach for the removal of vegetation to minimize the period of exposure of bare soils, especially in the area of steep slopes. These shall remain in their initial state as long as practically feasible. Prior to the beginning of site clearance operations the construction unit shall submit a method statement on how they propose to proceed in this respect and obtain approval thereupon from the IADC.

During construction exposed soils may be degraded as a result of compaction and nutrient leaching. Considering the expected - and intended - future shift from a rural to a commercial area the maintenance of soil productivity is not considered a primary concern during construction. However, from an environmental perspective it is not desirable that nutrients be washed to the Sea and the protection of temporarily stored topsoil is required for its subsequent reuse. In this respect the following mitigation measure shall be considered to secure environmentally sound top soil management:

Locations for the temporary storage of topsoil shall be selected such that there will be no washout into the Yambou River, temporary streams or the Sea;

To minimize disturbance of natural habitat and/or wastage of productive land or pastures site selection for the temporary storage

of topsoil should as much as possible use such areas that are owned by the IADC and that will anyhow be built upon at the later stages;

Organisation of construction should aim at minimizing the storage period for topsoil, e.g. by gradually replacing the topsoil where embankment construction has been completed;

Prior to the beginning of construction a method statement showing the proposed temporary storage sites and modes of soil management over the construction period shall be submitted to the IADC for approval.

During construction increased surface run-off can have a detrimental effect on neighbouring soils through continued erosion. This effect can most effectively be controlled by providing appropriately designed, effective drainage and engineering techniques and by ensuring that all exposed soils on the cleared surfaces and new embankments will be vegetated as soon as practically possible upon completion of earthworks.

Surface Water Resources

During construction surface water resources may be affected by accidental spillage of hazardous substances into a river or streams or by inappropriate management practices. Construction of the Yambou River crossing is another potentially critical issue. The following mitigation measures should be implemented:

Discharge of sediment laden construction water (e.g. from areas containing dredged spoil or pumped ground water from foundations) directly into surface water courses will be forbidden.

Where advised by IADC's environmental monitoring unit sediment laden construction water will be discharged into settling ponds or tanks prior to final discharge. This applies particularly to the crossing of the Yambou River and its tributary.

Carry out water quality monitoring on the Yambou River. As no relevant previous data on the quality of the Yambou River exist, measurements should commence as soon as possible. Such

pre-construction data collected over a longer period would be the only reference to assess potential subsequent impact of construction or future operation on the local water resources.

For surface water protection it is in addition recommended that:

The Construction Unit will submit a statement with the proposed method of construction of the structure crossing the Yambou River and the measures that are envisaged to avoid surface water pollution. This method statement will be reviewed and approved by IADC's Environmental Monitoring Unit / the CWSA prior to the beginning of construction;

Washing of vehicles or any construction equipment in the Yambou river or any other stream that directly discharges into the Sea shall be strictly forbidden.

The Construction Unit (CU) shall provide to the IADC a method statement on how and where they intend to practically proceed with the cleaning of their vehicle fleet and equipment. The guiding principle of these operations shall be to prevent any surface water pollution at source;

Yard and Workshop

The yard and workshop, if not appropriately designed and managed, can be sources of significant pollution and risks for human health and safety. The CU will need to set up a yard and workshop where large volumes of hazardous / combustible materials and water pollutants will be stored. To minimize safety risks of surface water contamination the CU will be required to

Provide specially designed and secured storage areas for diesel and lubricants;

Set up a specifically designed, well accessible area for the safe storage of diesel. The diesel storage site shall have a containment in concrete and be located at a minimum distance of 50 m to other combustibles. The tank must be elevated to a minimum of 3 m above ground on a concrete platform and metal saddles. The size of the platform would depend on the type of supply (i.e. pumping or gravity). The CU shall submit a method statement on the proposed design of the site to the IADC who may get support from the NEMO/SOL in reviewing this statement.

The NEMO and SOL are currently working on management controls for toxic and

oil spills. The IADC's Environmental Monitoring Unit (the 'Competent Person', see section 12.3.1 of this report) may receive advice and guidance on how to practically deal with these issues during the construction process.

Management of Construction Waste

During a large scale construction project large amounts of waste will be generated such as scrap tires, used oil, drums and other packaging materials, derelict vehicles and other scrap metals etc. To ensure a proper waste management at the construction site the CU shall ensure to fully comply with the provisions of the Argyle International Airport Project applicable standards for waste management operations and requirements for licences and permits (Parts II and III of the Solid Waste Management Regulations of 2006). To this regard the CU shall submit a method statement on how solid waste from the site (especially hazardous waste; derelict vehicles, waste tires, used oil) would be managed in accordance with the applicable Solid Waste Management Regulations.

This method statement would have to be submitted to the solid waste unit of the CWSA for approval prior to or at the possibly early stages of construction. Tires that cannot be reused on the island (e.g. for slope stabilisation or to protect against coastal erosion) will have to be collected at the site and be cut, chipped, shredded or otherwise permanently reduced in volume prior to their final disposal at an officially approved site. Burning of tires at the site will be strictly prohibited.

No facilities are available on the island for the environmentally safe disposal or recycling of used oil. Therefore the CU shall be required to

Collect and temporarily store any used oil at the site in an environmentally safe manner;

Make provisions for the recycling of all used oil from the site by shipping it to one of the regional refineries (e.g. Trinidad or Curacao)

Provide a method statement on the proposed design of the site for the temporary storage of used oil and lubricants and the proposed management of used oil and obtain approval thereupon from CWSA's Waste Management Unit.

To minimize the ultimate volumes of used oil to be disposed of it is recommended That: the storage of large numbers of tires at the site may create ideal nesting habitat for rats which are reported to be abundant in the area. This aspect will need to be considered when setting up the site management plan!

Human Environment

Noise Impacts

During construction noise will occur at and around the construction site from the operation of heavy site equipment and construction vehicles. The impact will be temporary and local and generally decrease with the distance from the source. The settlements that will most likely be temporarily affected by construction noise are parts of (from south to north):

Stubbs, Calder, Mt. Pleasant, Argyle and Peruvian Vale.

Due to the prevailing wind directions Peruvian Vale and residents from the seaside areas of Mt. Pleasant may be less affected than the others. Generally construction-related noise can represent a great nuisance for local residents, especially as construction activities will continue over a relatively long period of time.

Construction noise cannot be generally avoided, but where sensitive receptors exist next to the construction site (see above) the level of disturbance may be reduced by Strictly limiting the working hours to weekdays and to the relatively least sensitive daytime periods⁷².

Workers exposed to construction noise are further sensitive receptors. The level of noise exposure and associated risks for the health and well being of the workforce depends on the individual work place and type of equipment used. According to the IADC construction arrangements may be such that works on the runway would ultimately be carried out around the clock in shifts. In this case so further effective mitigation measures for the reduction of noise-related nuisance could be implemented. Potential negative impact of construction noise on the workforce should be generally mitigated by:

Providing the workforce with appropriate noise protection gear and by using silenced construction equipment in specifically noisy operations.

Health and Safety of Construction Workers

During construction the health and safety of the workforce is at risk due to an accident-prone working environment, long shifts and through accommodation at a campsite. To minimise the risks associated to these framework conditions IADC will be responsible to ensure that adequate health care arrangements will be available at the site throughout the construction period.

The local clinics at Biabou, Calder and Stubbs are outpatient facilities, where a doctor is only available once a week, which would not be adequate in a case of emergency at the construction site. The nearest hospital would be in Mesopotamia, but this may also not be adequate. Therefore it is suggested to

Set up an emergency response unit with a minimum of one medical person to liaison with the MoHE and provide an ambulance on site.

The responsibility for setting up such emergency response unit would lie with the body or institution responsible for the deployment of the Cuban construction brigade / unit. Another aspect to be considered with regard to the health and well being of both the workforce and the local population will be to

Ensure that adequate, up to standard sanitary conditions will be available at the work camp and that garbage will be regularly collected.

The responsibility for providing such framework conditions lies with the IADC.

Monitoring of the sanitary conditions within the worker's camps is the responsibility of the MoHE, whose public health care officers would regularly carry out surprise checks to inspect the camps.

As regards worker's safety the Construction Unit will also be responsible to ensure

That the workforce will be equipped with appropriate working gear such as safety vests, goggles, face masks, earplugs, helmets, boots etc., as required and depending on the specific requirements of the individual work place.

Emergency Response

The construction site is located in an area that may be exposed to seasonal hurricanes, which represents a potential threat to the health and safety of the workforce.

Therefore the Construction Unit will be required to

set up an emergency response plan

which should be in keeping with NEMO's official emergency response policy. This response plan will have to be approved by the NEMO / the MoTW prior to the beginning of construction.

HIV/AIDS/STI Prevention and Social Integration of Foreign Workforce

To minimize the risk of new infections and the spread of HIV/AIDS/STI a specific tailor-made campaign should be carried out under the Project. This would comprise of:

Conducting HIV/AIDS/STI sensitisation sessions at the campsite including the distribution of information materials / brochures at the camp (in Spanish language).

The proposed services may be rendered in the frame of the national AIDS/STI Prevention Programme established under the MoHE and would thus be free of cost. The procurement of the relevant printed materials from abroad in Spanish language may, however, entail additional cost of about 500 US\$.

These extracts were taken from the final eia report submitted to the iadc by kocks consult gmbh . the iadc is making every effort to implement these recommendations. Several of which are already in place. Please forward any questions to us via the contact page on this website or you may wish to give us a call .