**Environmental and Social Impact Assessment – Expansion of the Caracol Industrial Park – Haiti (HA-L1143)**

# EXECUTIVE SUMMARY

The HA-L1143 operation will finance six (6) additional warehouses of 12,000 to 20,000 m2 each, two (2) industrial buildings of 5,000 m2 each, a boiler room, a facility for sorting of solid waste, a hazardous waste facility, hangars, a health center, dormitories, toilets and canteens. The operation also will finance the extension of several associated facilities (street, water pipes, sewer, electricity network) as well as work to protect and stabilize the banks of the Trou-du-Nord river. This expansion would generate 6,000 new jobs, the majority (3,500) of which would be held by women.

Since the HA-L1143 operation has been categorized as A, an environmental and social impact assessment is required including two (2) rounds of public consultation with stakeholders. The assessment is the preliminary report expected after the first round of public consultation. The final report will be presented following the second round of public consultation.

The assessment identified and qualified 145 negative environmental and social impacts and 23 positive environmental and social impacts. Taking into consideration the recommended mitigation measures, 137 of the 145 identified negative impacts have negligible or minor residual effect. Only 8 of the negative impacts have a moderate or major residual effect. In return, 21 of the 23 identified positive impacts can have a high or medium residual effect by applying the proposed enhancement measures.

The following table summarizes the minor, moderate and high impacts identified according to the environment considered and according to the phase of the project (construction or operation).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Milieu | Minor impact | Moderate impact | High impact | Residual impacts |
| CONSTRUCTION PHASE | | | | |
| Negative impacts | | | | |
| Physical environment | 13 | 4 | 1 | None |
| Biological environment | 8 | 2 | 2 | 2 high impacts 1 moderate impact |
| Human environment | 19 | 10 | 8 | 2 moderate impacts |
| Total | **40** | **16** | **11** |  |
| Positive impacts | | | | |
| Physical environment | 0 | 1 | 0 | 1 moderate impact |
| Biological environment | 0 | 0 | 0 | None |
| Human environment | 7 | 0 | 0 | 4 high impacts |
| Total | **7** | **1** | **0** |  |
| OPERATION PHASE | | | | |
| Negative impacts | | | | |
| Physical environment | 3 | 9 | 9 | 1 moderate impact |
| Biological environment | 0 | 11 | 0 | None |
| Human environment | 16 | 38 | 12 | 2 moderate impacts |
| Total | **19** | **38** | **21** |  |
| Positive impacts | | | | |
| Physical environment | 0 | 1 | 3 | 3 high impacts  1 moderate impacts |
| Biological environment | 0 | 0 | 2 | 2 high impacts |
| Human environment | 1 | 1 | 7 | 8 high impacts  1 moderate impact |
| Total | **1** | **2** | **12** |  |

The table above reveals a higher number of negative impacts in operation (78) than in construction (67), as well as a higher number of positive impacts in operation (15) than in construction (8).

The main residual negative impacts concerns the loss of flora and fauna habitats caused by the deforestation required on the territory of the PIC for the construction of new infrastructure. No mitigation measure is possible on the PIC territory. Although some reforestation is possible in the landscaping of the project, the net balance will remain negative. The IDB and UTE are therefore encouraged to support reforestation or sustainable forestry initiatives in the immediate region of the PIC to reduce this localized loss of biodiversity.

Average residual impacts relate to a wider variety of topics.

The first is the risk of soil contamination by the temporary storage of ordinary waste at the Madrass site. The delay in offering a definitive solid waste management solution at the Mouchinette site perpetuates the situation in Madrass which took on a new dimension with the fire that broke out there on June 18, 2020. The prospect of the site opening de Mouchinette objectively leads us to minimize the level of impact, but the delays to materialize justify that the residual impact is considered moderate. Any initiative to speed up the construction of the solid waste management site in Mouchinette must be encouraged.

The second average residual impact is the speculation induced in the neighboring municipalities, pushing the prices of rents and land upwards. Although apparently positive for owners and landlords, this phenomenon can be very harmful for a part of the population whose income does not keep pace with the prosperity induced by the salaries offered to the PIC. Mitigation measures exist to limit this phenomenon, but many require regulatory interventions that may take a few years to produce the desired results.

The last average residual impact relates to the sustainability of urban development induced by the increasing activities of the PIC. Although several efforts have been made by various municipalities and government agencies to develop development frameworks (urbanization plan, construction standard, etc.), development needs often exceed the capacity of local stakeholders to control the pace of development, urbanization and its sustainability.

Despite the above, the fact that the expansion of the PIC planned in operation HA-L1143 is carried out within the existing perimeter of the PIC limits the negative impacts. In addition, the integration into the project of a health clinic, a hazardous waste storage area, additional canteens and stabilization of the banks of the Trou-du-Nord river corrects certain issues observed since the opening of the PIC.

These initiatives combined with the integration of the proposed mitigation measures mean that the PIC expansion project will not have significant negative effects.

This conclusion should however be considered as an important warning. The majority of the mitigation and monitoring measures during the construction phase can be met from the construction costs and the costs of control and supervision missions which will be financed by operation HA-L1143. On the other hand, many of the mitigation and monitoring measures in the operational phase will depend on government investments outside of Operation HA-L1143 and on recurring operational funds from UTE and other government agencies. A concerted effort by the various stakeholders is expected to ensure the successful deployment of mitigation and monitoring measures during the operational phase.

Stakeholder concerns

At the time of producing the fit-for-disclosure assessment, a first public consultation was held to present the PIC expansion project and the potential issues.

The main environmental concerns expressed during this consultation were related to waste management, the water quality of the Trou-du-Nord river and the increased pumping of groundwater.

At the social level, concerns have focused on the safety of workers in transport as well as the safety of workers on the site. Aspects of access to work and dropping out of schooling for young people who prefer to go to work at the PIC were also discussed.

These concerns have been considered in the environmental and social impact assessment and mitigation measures are included to limit the anticipated negative consequences.

Project related issues

However, the conclusions of the recently conducted Environmental, Social and Health and Safety Compliance Audit argues for the inclusion of certain additional considerations in the planning of the project targeted by operation HA-L1143:

* Water distribution system: a difference of nearly 50% between the water withdrawn and the water consumed at the PIC is observed. This indicates either a malfunction of the measuring instruments, or a significant water leak. This situation must be investigated in detail and measures planned in the project to avoid the repetition of this problem (if applicable);
* State of the banks of the Trou-du-Nord river: if the phenomenon of erosion is already known, the audit also reveals that certain portions of the banks have been cultivated and that sand has been collected there. These prohibited uses amplify the problem of erosion. The project should also be planned with a view to limiting these prohibited accesses and uses;
* Transport of workers: the current networks do not reach Cap-Haitien, where 25% of the workforce comes from, which contravenes Haitian law;
* Regional social development: the social investment plan planned following previous operations has not been implemented;
* Training and working conditions: positions have been vacant for many months within the EHS (Environment-Health-Social) team of the UTE dedicated to the management of the PIC, which reduces its capacity to provide training and to inspect the working conditions of workers;
* Access to PIC jobs: the difficulty in identifying and training vulnerable populations reduces their ability to obtain PIC jobs. This issue is also linked to the issue of vacant positions within the EHS team of the PIC.

Cumulative impacts

The PIC expansion project is part of a set of around 13 projects recently completed or in planning in the North and North-East departments. The PIC and nine of these projects have already been subject to cumulative impact assessments in 2015 and 2018 for which several of the 83 mitigation measures targeted impacts identified in the environmental and social impact assessment. These 83 mitigation measures could be adapted to the new pressures resulting from the expansion of the PIC to avoid or reduce cumulative impacts. However, the same conclusions as in 2018 should be formulated here as to the need for a concerted effort by investors, donors and government agencies of Haiti to pilot this cumulative impact mitigation program, in particular to control the urbanization of municipalities underpinned by the arrival of a large number of new workers and their families. In the absence of specific support for this program, some of the cumulative effects could materialize to the detriment of the physical, natural and human environments.