



## 6.2 Action Plan



The Concessionaire has given a solution to all the actions requested in the Action Plan of the ESDD and the first biannual environmental and social monitoring report submitted in July 2016. It is important to clarify that some of the actions do not correspond to an ongoing non-compliance, but they are aimed to strengthen the current measures or are actions that need to be evaluated during the whole construction phase. In addition, the format of the Action Plan was re-adapted to a more synthesized version, and previously solved actions were removed. Moreover, new measures are included and identified with blue in the color code column. The current status of the activities are shown in Table 7 and has been evaluated with the following color coding





To date, the Action Plan has eight (8) activities. Seven (7) of them correspond to the Action Plan of the ESDD and the first biannual environmental and social monitoring report, and one (1) is a new action proposed after the site visit and the document review. 100% of the previous actions were duly attended by the Concessionaire, complying with the proposed deadlines. Three (3) has been marked as solved and will be removed from the following report and four (4) have been characterized as “on track”, as they will need to be implemented during the full extension of the construction phase.

 Solved.  On track  Pending  New Action

Table 7 Action Plan Monitoring

Proposed Action (As set in the ESDD)	Proposed Deadline	Current Status (Updated December 2016)	Color code
<b>1 Pending Licenses:</b> Once the Environmental license is obtained for UF 2 and UF 3, the independent engineer must identify the risks and impacts. <b>UF:</b> UF2 and UF3. <b>PS/EP:</b> PS1	Solved	The Concessionaire obtained the environmental license of UF2 -Tesalia Tunnel and UF3 – La Manuela Risks and impacts have been adequately identified in the EIA and mitigation actions will be evaluated during the construction phase.	
<b>2 Prevention of Pollution:</b> Neither the management plan for prevention of water pollution due to the construction of Tesalia tunnel nor the monitoring and follow-up are going to be defined until the approval of the EIA.	Solved	Prevention of water pollution has been satisfactorily covered in the EIA. During the licensing process, The	

Proposed Action (As set in the ESDD)	Proposed Deadline	Current Status (Updated December 2016)	Color code
<p><b>UF:</b> UF2.2 <b>PS/EP:</b>PS3</p>		<p>Concessionaire has adjusted the Environmental Management Plan as requested by the ANLA, demonstrating technical capacity and competence. Additional information was submitted to the ANLA in October 2016. The EIA of UF2.2, included two new programs (MA-11 and MA-12) related to water infiltration and aqueduct connection for neighborhood communities. In addition, it adjusted the surface water management program (MA-13). Also, the Concessionaire included a program of "Water Resource Monitoring" where activities related to the monitoring network (Vaguadas, Springs, Quebradas, Piezometers and Aljibe) were contemplated.</p>	
<p><b>3 Calculations of gas emission.</b> The Concessionaire needs to calculate the CO2 emissions and publish a report each year. <b>UF:</b> All <b>PS/EP:</b> PS3</p>	Solved	<p>For this period, the Concessionaire submitted the mechanism of GHG quantification for the complete Project. It calculated the emissions for pre-construction and the first year of the construction phase. The quantification includes all emission sources (gasoline, diesel and electricity) and uses an authorized tool for its calculation. Total emissions for first the first year of construction is 19.100 kg CO2. The report will be updated on a yearly basis.</p>	
<p><b>4 Compensation – Resettlement.</b> The system for social compensation offered by the Project to the communities located along the road is not clear. <b>UF:</b> ALL <b>PS/EP:</b>PS5</p>	Biannual – Next Envi. And social report. (July 2017)	<p>Socio-economic compensations are being performed under the Socioeconomic Compensation Plan, which complies with Resolution 545 of 2015. The real estate portfolio and the neighborhood minutes are being developed. The compensation will be evaluated in parallel with the property acquisition process. Until December 31, there are 13 family units that need to be</p>	

Proposed Action (As set in the ESDD)	Proposed Deadline	Current Status (Updated December 2016)	Color code
		compensated. 2 in UF1, 7 in UF3.1, 3 in UF3.2 and 1 in UF4.	
<p><b>5 Supply Chain.</b> There is no evidence in the ESDD that the source of the supplies is directly generated by the concessionaire or the suppliers, and given the case, if these ones have the permits required, in such a way that the habitat is not going to be affected negatively. UF: <b>ALL</b> PS/EP: <b>PS6</b></p>	Biannual – Next Envi. And social report. (July 2017)	The Concessionaire has submitted the certificates of the suppliers, and they comply with legal requirements. The documents were verified for the UF under construction and will be evaluated during all construction phase.	
<p><b>6 Materials disposal.</b> The documentation for the design of the rubble and excavation material Management Area (ZODME) was not at the level of a detail design. UF: All PS/EP: <b>PS6</b></p>	Biannual – Next Envi. And social report. (July 2017)	Detailed designs of the ZODMEs are being developed. So far, the Concessionaire has acquired the majority of the volume needed. To date, the following ZODMES are being used: Mirolindo, El Cuervo and Calamar. They are meeting the technical specifications and designs approved by the environmental authority. The material disposal will be evaluated during all the construction phase.	
<p><b>7 Archaeology:</b> According to the results obtained during the archeological field studies phase, which determined that the Project area has an archeological potential qualified as medium-high, and estimated the probability of archeological findings, the area is considered to have a risk of significant findings. UF: All PS/EP: <b>PS8</b></p>	Biannual – Next Envi. And social report. (July 2017)	In the UFs under construction, the Concessionaire has an Archaeological Management Plan approved by the ICANH which includes monitoring and rescue activities. To date, there are more than 40 professionals involved in the Project. Likewise, interagency agreements have been made in cultural centers and museums.	
<p><b>8 Modification of Environmental License – UF 1 La Virginia Bypass</b> The Concessionaire is working on a modification of the environmental license for UF1 –La Virginia Bypass, due to a 400 m roadway realignment, which does not represent major changes in the EIA. The Concessionaire has submitted the modification request to the ANLA and has subsequently held a site visit and meetings with representatives of this governing body. The Concessionaire expects to have the approval of this modification by January 2017</p>	January 2017	New Action.	

## 7 General Recommendations

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The document review and site visit indicate that that the Project is complying with environmental and social obligations. No significant environmental compliance problems have been identified as a result of the pre-construction and construction phases of the Project. This statement is in line with the Supervision, which has not manifested any major nonconformity for this monitoring period.

During the site visit, it was evidenced that at the exit of work fronts there is a crew responsible for cleaning the tires of vehicles and sweeping the road. However, during the rainy season, this measure may be insufficient (Figure 3). Therefore, construction of sumps are recommended.

The License for UF 2.2 was obtained on November 25, 2016. The Concessionaire needs to include some specific measures established in this License in the first Environmental Compliance Report. None of these requirements implies a risk for the development of works. Arup will review the compliance with the License during upcoming construction monitoring reports.

For the hydrogeological aspect, the Concessionaire provided robust documentation, reflecting an in-depth knowledge of the area of study as well as management capacity to cope with possible environmental and social impacts. Moreover, Arup considers that the established monitoring frequency is adequate. However, it is important to advise that in case of surface water reductions are evidenced, the Concessionaire should re-adjust the monitoring schedule and apply mitigation actions.

In relation to the social aspects, the Concessionaire should continue strengthening the relationships with the different stakeholders as well as complying with all social obligations as it is being done so far, in order to prevent any social disturbance and maintain a harmonious social climate in the area of influence of the project.

## 8 Photographic Record



Image 3 Road signalling



Image 4 Adequate planting of vegetation cover in slopes



Image 5 Archaeological rescues





Image 6 Adequate water course protection



Image 7 Storage of dangerous materials



Image 8 Earthworks in UF1