

7.4 Compliance with Supervision Monitoring

The Concessionaire is complying with the Supervision observations. Between January and June 2019, the Supervision graded each Functional Unit according to its environmental performance. From the results, it can be interpreted that the Concessionaire is having an adequate environmental and social management. The lowest average grade is 90% for UF3 and the highest rate is 97% for UF1.

Table 10 Compliance with Supervision monitoring

%	JAN	FEB	MAR	APR	MAY	JUN	Average
UF 1	98	99	99	99	96.0	96	97.00%
UF 2	86	86	86	85	97.0	92.0	91.33%
UF 3.1	89.0	91.0	90.0	91.0	91.0	90.0	90.67%
UF 3.2	90.0	90.0	90.0	90.0	90.0	90.0	90.00%
UF 4	98.0	97.0	96.0	95.0	96.0	96.0	95.67%
UF5	97.0	97.0	96.0	97.0	94.0	93.0	94.67%

7.5 Action Plan

The Concessionaire has given a solution to almost all the actions requested in the previous Action Plan. It is important to clarify that some of the measures do not correspond to an ongoing non-compliance IFC Standards and Equator Principles III but are in the process of being implemented or are still pending implementation. The Action Plan has been updated up to June 2019.

To date, the Action Plan has twenty-two (22) activities. Six (6) of them correspond to “on track” activities, seven (7) are solved, and nine (9) are new actions proposed after the site visit and the document review. The current status of the activities is shown in Table 11 and has been evaluated with the following color coding.

■ Solved
 ■ On Track
 ■ Pending
 ■ New Action

Table 11. Environmental and Social Action Plan

No.	Proposed Action (As set in the ESDD or previous Action Plan)	Proposed Deadline	Current Status (Updated June 2019)	Color code
1	<p>Risk of fall at Tesalia Tunnel: The channel to conduct the water from inside the tunnel to the its entrance, is not well signaled and does not have any protection barrier. This could represent a risk of fall for employees and machinery. Consecutively, Arup request the installation of a protection barrier to the reduce the risk of fall.</p> <p>Furthermore, during the evaluated period 3 accidents were reported in Tesalia Tunnel´s gallery portal, the Concessionaire manage the events according to the approved procedures, even though Arup request the Concessionaire to implement all the preventive measurements in order to prevent more accidents related to the Patia fault.</p> <p>UF: 2.2 PS/EP: PS4</p>	N/A	During the evaluated period this action was solved	
2	<p>Property Acquisition- Compensation mechanisms: The Concessionaire is complying with the resettlement processes and land acquisition according to the national Resolution no. 545, 2008 - ANI and the appendixes 7 and 8 for the Concession Agreement. The Concessionaire should evaluate economic, legal and social aspects of the new resettlement properties and follow up the adaptation of their owners for at least one year.</p> <p>Arup request the Concessionaire to report in the next period all the strategies are being implemented for the relocation processes in UF 5 and the approval of the EER regarding delays in the construction schedule.</p> <p>UF: 5</p>	Biannual – Next Envi. And social report.	During the reported period the Concessionaire proposed ANI different options that could accelerate the relocation processes : (i) merging relocations to different families, ensuring that everyone has their own property documentation, (ii) buying lots of great extension for the construction of several houses with the support of construction companies and compensation funds like Confenalco, (iii) buying houses below the 70 minimum wages and giving the difference to the owner for the improvement and refurbishment works, (iv) giving the corresponding amount of money to the families that desire living in other city or country and (v) delivering only the value of the commercial appraisal of the improvement to the social units that request it, renouncing to the support of the reestablishment of housing.	

	PS/EP:PS5	Up to date, ANI is evaluating the EER and the alternatives proposed by the Concessionaire.	Arup will continue tracking this process until the property acquisition and relocation of social units reaches an end.	
3	<p>Archaeology: 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.</p> <p>However, Arup evidence that the Concessionaire has not find all the required final places in which the rescued archaeological material will be delivered. The Concessionaire should submit in the following period the selected places.</p> <p>Regarding the Petroglyph process, and the new areas El Indial and La Bamba, Arup request to be informed about the closure of processes and if there is an important risk of delay in the construction activities.</p> <p>UF: All PS/EP:PS8</p>	Biannual – Next Envi. And social report.	<p>During the reported period the Concessionaire carried out archaeological monitoring activities and preventive archaeological programs in UF 2, UF 3, UF 4, UF 5 and ZODMEs. Up to June 2019, the Concessionaire has monitored 48 sites that were consolidated in 55 polygons: from which the 85.5% are finished, 12.7 % are in process and the 1.8% are pending.</p> <p>During the site visit Arup evidenced that the Cafetales area in UF 3.2 was finished. Regarding the Petroglyph in UF 5, the Concessionaire submitted to ICANH a proposal for relocating it to the CCO. Up to date the ICANH answer remains pending.</p> <p>Two new areas are being processed: El Indial and La Bamba. According t the Concessionaire in August 2019 will be feasibly to determine the approximate date of liberation of these areas.</p> <p>Arup will continue tracking this process and its implication in the development of the Project.</p>	
4	<p>Entrance portal of Irra Tunnel: Between November 2017 and January 2018, one segment of the entrance portal of the Irra Tunnel collapsed (K52+300). Currently, the Concessionaire is working in the stabilization of this sector though the implementation of different mitigation and control measures. As requested in the last monitoring period the Concessionaire is notifying the environmental authorities and Arup about the works performed in this area.</p>	Biannual – Next Envi. And social report.	<p>During the site visit, it was evidenced that the Concessionaire is progressing with the stabilization measures and construction activities in the tunnel. According to the Concessionaire during the evaluated period any requirement or visit form ANLA or Corpocaldas was received. Arup evidenced the Concessionaire is reporting the progress to ANLA through the on-line application</p>	

<p>The Concessionaire should inform Arup of any notification or visits of the environmental authorities, ANLA and Corpocaldas. In addition, it should present the reports or documents showing the final works in this sector.</p> <p>UF : 4 PS/EP: PS1 and PS4</p>		<p>VITAL. Furthermore, the life line requested in the previous report was installed.</p> <p>Arup will continue tracking this process until its official closure with the environmental authorities.</p>
<p>5</p> <p>Environmental sanctioning process: In November 2018, ANLA opened a punitive process related to the construction of the Jaramillo’s bridge piles in UF 1. Which is within the licensed area, but the construction activity was not authorized in the environmental license. In Arup’s opinion considering that the UF 1 construction activities were finished, the sanctioning process does not represent a high risk in the development of the project. This kind of administrative procedures can last between 1 and 20 years and could end up in an economic sanction that can vary between 10 and 80 million pesos COP.</p> <p>The Concessionaire must review the legal process and report the advances and response issued to the environmental authority in the next monitoring report.</p> <p>UF : 1 PS /EP: PS1</p>	<p>Biannual – Next Envi. And social report.</p>	<p>During the evaluated period the Concessionaire continues evaluating the legal and economic processes and consequences and did not receive or submit additional information to ANLA.</p> <p>Arup will continue tracking this process until its official closure with the environmental authorities.</p> 
<p>6</p> <p>Industrial water management of Tesalia Tunnel: The Concessionaire has significantly improved the industrial wastewater treatment at the entrance and exit portal of Tesalia tunnel.</p> <p>In January 2019, a high concentration was SST was evidenced in the water discharge of the entrance portal. The Concessionaire must submit the evaluation of the effectiveness of the water</p>	<p>Biannual – Next Envi. And social report.</p>	<p>Between January and June 2019, the Concessionaire acquired a press for the sludge drying of the entrance portal of Tunnel Tesalia, which represents an optimization of the space and the improvement in the sludge treatment.</p> <p>Arup evaluated the results for the monthly water characterizations of the water discharges of Tesalia Tunnel (January - May 2019)</p> 

<p>treatment in both portals and the monitoring characterization results.</p> <p>UF: 2 PS /EP: PS3</p>	<p>and found they comply with the national maximum permissible levels (Resolution 0631, 2015).</p> <p>During the evaluated period this actions in marked as solved.</p>
<p>7</p> <p>Materials disposal – ZODMES: The Concessionaire has identified 40 ZODMES, from which 9 are in use, 11 ready to use when necessary, 15 in closure process, 5 were desisted and 3 are in authorization process. Arup noticed that ZODMES in use are meeting the technical specifications and designs approved by the environmental authorities.</p> <p>Arup request the concessionaire to inform in the next monitoring report the reason why the excavation material is not being disposed in ZODMES and recommend signaling the disposals of great volume magnitude.</p> <p>Furthermore, Arup request the Concessionaire to inform the final disposal procedures that are being carried out with debris and material such as glass and wood from the demolished houses and infrastructures.</p> <p>UF: All PS/EP:PS6</p>	<p>Biannual – Next Envi. And social report.</p> <p>Although the Concessionaire has the enough areas for the disposal of excavation materials, during the site visit Arup continue evidencing the disposal of materials in certain work fronts of UF 4, 3.2 and 3.1 and near the Tesalia Tunnel.</p> <p>Arup request the Concessionaire to inform in the next monitoring report the reason why the excavation material is not being disposed in ZODMES and the maximum times the temporal disposal is authorized per UF.</p> <p>Arup will continue tracking this process.</p> 
<p>8</p> <p>Disclosure of information – PQRS system: Arup evidenced the Concessionaire has had an efficient management of the received PQRS. However, it is important to mention that there are recurrent PQRS related to high noise levels and dust near the work fronts areas.</p> <p>Arup request the Concessionaire to evaluate if the established measurements are enough and implement all the necessary additional measurements in order to prevent air quality and noise affectation, especially in the populated areas near the work fronts.</p>	<p>Biannual – Next Envi. And social report.</p> <p>During the evaluated period, Arup doesn't identify additional measurements related to the reduction of noise and dust near the work front areas. In addition, Arup continue evidencing PQRS related to noise and dust affectations, and during the site visit found that the road humidification with the tank truck is not being effective.</p> <p>Arup will continue tracking this process until the Concessionaire implement effective measurement to reduce noise and dust impacts in the work fronts near populated areas.</p> 

	<p>UF: ALL PS/EP: PS1, PS3</p>	<p>Working conditions: It is evidenced that the Concessionaire is hiring its employees according to legal requirements and has established procedures to ensure adequate working conditions.</p>	<p>Biannual – Next Envi. And social report.</p>	<p>During the evaluated period the Concessionaire clarified the functions and activities related to the workforce hiring. Arup evidenced the effort the Concessionaire is carrying out to guarantee the gender equity in workforce recruitments, especially in the administrative and management positions.</p>	
<p>9</p>	<p>Arup noticed that only 10% of the hired employees are women. Arup recommends the Concessionaire to evaluate and implement different programs to encourage recruitment of women from the region</p>	<p>This actions in marked as solved.</p>	<p>UF: ALL PS/EP: PS 2, PS 4</p>		
<p>10</p>	<p>Soil protection: The Concessionaire has approved the management actions for the protection of soils, one of these measures is related to the protection measures in temporary camps, plants and facilities.</p> <p>During the site visit Arup evidenced that in camp some materials, measure and control of oil spills, also measures for ensuring containers and machinery is being placed on the direct soil without any protecting the order and cleanliness is required.</p>	<p>N/A</p>	<p>Arup evidenced all the corrective actions implemented by the Concessionaire. During the site visits order and cleanliness was identified.</p>		
<p>11</p>	<p>Health and safety: During the site visit to the Irra Tunnel (June 2019) Arup evidenced no measurements applied for the air emissions and ventilation control inside the tunnel; high concentrations of dust, gases and humidity was perceived.</p>	<p>N/A</p>	<p>Arup evidenced all the corrective actions implemented by the Concessionaire, including the ventilation system in the Irra Tunnel and the prohibition of gasoline vehicles near the tunnels work areas.</p>		
		<p>This actions in marked as solved.</p>			

	<p>Arup requires the Concessionaire to install the ventilation system of the Tunnel in order to protect the workers' health and safety. Also, some gasoline vehicles were found near the Tunnel which can represent a risk related to gas emissions and the lack of the ventilation system.</p>	<p>UF 4 PS 2</p>			
<p>12</p>	<p>Emergency and contingency plan: The Concessionaire has, and adequate Contingency and Emergency Plan approved by the Environmental authorities in the Environmental Licenses and the supervisor of the project.</p> <p>Even though during the site visit (January 2019) Arup evidenced some corrective measurements that should be implemented: (i) define meeting points in an all the camps and tunnels area and disclosure it to every visitor of the project, (ii) improve the location and access to the anti-spill kits and fire extinguishers in all the facilities, (iii) define a standardize alarm system including all the contractor's camps and production plants, (iv) ensure that all the dikes are enough for preventing major spills (v) conduct drillings and (vi) control not only the entrance but the exit of visitors to the facilities of the project.</p> <p>Arup will evaluate the progress regarding this issue in the next monitoring period.</p>	<p>UF All PS 1 and 2</p>	<p>Biannual – Next Envi. And social report.</p>	<p>Arup evidenced all the corrective actions implemented by the Concessionaire, including the relocation of anti-spill kits and fire extinguishers in all the facilities, dikes installation, drillings and visitors control in working areas.</p> <p>This actions in marked as solved.</p>	
<p>13</p>	<p>Organizational capacity and competence: The Concessionaire has a sound social and environmental work team for Project management. Even though, during the site visit (January 2019)</p>		<p>Biannual – Next Envi. And social report.</p>	<p>Arup evidenced the hiring of the missing environmental resident. This actions in marked as solved.</p>	

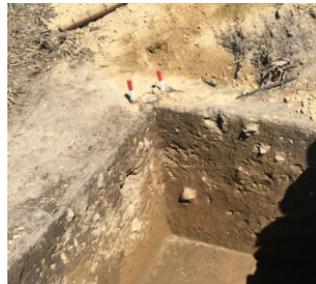
<p>Arup evidenced that in the front works and component of UF 2.3 the active presence of an environmental resident is missing.</p> <p>UF: 2.3 PS/EP: PS 1</p>	
<p>Working conditions – work force layoff: Due to the end of construction works some of the UFs, during the evaluated period the Concessionaire began to implement the staff layoff programs which included different trainings.</p> <p>14 Arup request the Concessionaire to report all the programs, activities, statistics and effectiveness of the implemented measurements.</p> <p>UF: ALL PS/EP: PS2</p>	<p>Biannual – Next Envi. And social report.</p> <p>New Action</p> 
<p>Fauna management measures: The Concessionaire should inform about the efforts carried out for protecting fauna through the implementation of fauna passages, monitor their effectiveness, and submit the results in the next biannual report.</p> <p>15</p> <p>UF: ALL PS/EP: PS6</p>	<p>Biannual – Next Envi. And social report.</p> <p>New Action</p> 
<p>Environmental License – Permits Modification: due to design changes in UF 5, the Concessionaire identified the requirement to modify 28 km of the permit of the Natural Reserve Subtraction of Rio Cauca, granted by Corantioquia in December 15th, 2016. In general, from the actual permit 22 ha of the natural reserve will be excluded, meanwhile 33 ha will be added as part of the influence area of the new designs.</p> <p>16</p>	<p>Biannual – Next Envi. And social report.</p> <p>New Action</p> 

	<p>Arup request the Concessionaire to inform about the progress of this procedure and submit in the next E&S report the estimated date for the approval of the subtraction permit.</p> <p>UF: 5 PS/EP: PS1, PS6</p>			
17	<p>Emergency and contingency plan: Arup request the Concessionaire to update the Emergency and Contingency Plans of the project, in compliance to the national Decree no. 2157, 2017.</p> <p>UF: ALL PS/EP: PS1, PS4</p>	<p>Biannual – Next Envi. And social report.</p>	<p>New Action</p>	
18	<p>Water treatment in Tesalia Tunnel: During the site visit, the Concessionaire informed that due to the intervention in the geological fault, the water flows of the WTP of the entrance portal is reaching the design flow (actual flow: 24 -30l/s, design flow: 40l/s), therefore a company was hired for the update and design of a new water treatment system for the whole Tunnel with a design capacity of 120l/s located in the exit portal. The Concessionaire expects to have the final design in September 2019 and carry out all the needed processes with ANLA for the modification of the environmental license during the second semester of 2019. The new WTP will be used for the whole tunnel, once both portals get connected.</p> <p>Arup request the Concessionaire to submit the final designs and the process of the environmental license modification in the next biannual report. And to inform about the flow projections and projections of the capacity of the actual WTP before the connection of both portals.</p>	<p>Biannual – Next Envi. And social report.</p>	<p>New Action</p>	
19	<p>Water springs UF 2: The Concessionaire found that the water springs M-01, and M-02 supply La Esperanza aqueduct</p>	<p>Biannual – Next Envi.</p>	<p>New Action</p>	

	<p>(FUNPAC) of El Potrerillo community (approx. 1152 inhabitants) and M-03 and P-05 are used for agricultural and livestock activities. ANLA evaluated the location and characteristics of the identified points and through Communication 02500 December 31st, 2018 imposed additional protection measurements for the closest and critical identified water springs (M-01, M-02 and M - 03) and the well P-05: including flow and water quality characterizations.</p> <p>The Concessionaire submitted the results of the monitoring campaign carried out in March 2019 and the flow level controls from January to June of the M-01, M-02. Arup request the Concessionaire to submit the results of M-03 an P-05 in the next monitoring period and to continue implementing all the additional measurements imposed by ANLA.</p> <p>UF: 2 PS/EP: PS1, PS3</p>	<p>And social report.</p>		
<p>20</p>	<p>Pollution prevention- hydraulic structures: During the site visit, Arup noticed that not all the hydraulic works have adequate water course protection barriers and not all the facilities have a bordering channel for the runoff flows and solids washouts.</p> <p>Therefore, Arup request the Concessionaire to install protection barriers in all the watercourses of the project and construct an alternative such as bordering channels for the runoff flows and solids washouts in the camps, plants and facilities.</p> <p>UF: ALL PS/EP: PS1, PS3</p>	<p>Biannual – Next Envi. And social report.</p>	<p>New Action</p>	
<p>21</p>	<p>Water management – El Cairo aqueduct: During the evaluated period, the Concessionaire received the PQR No. 10-78 (May 5th, 2019) related to the petition of information of the community El</p>	<p>Biannual – Next Envi. And social report.</p>	<p>New Action</p>	

	<p>Cairo about the water flow of a waterbody near the entrance portal of Tunnel Tesalia.</p> <p>Arup request the Concessionaire to submit all the technical studies about the watercourse lithology and water quality characterization and a report all the implemented measurements that guarantee the water availability and quality.</p> <p>UF: ALL PS/EP: PS1, PS3</p>			
<p>22</p>	<p>Environmental License – Mixer truck wash:</p> <p>During the site visit Arup evidenced washing activities of the truck mixers in the water treatment plant of the exit portal of Tunnel Irra. Arup request the Concessionaire to submit the document that approve this activity, considering that in the environmental license these kind of procedures is not authorized as part of the water treatment system.</p> <p>This activity can represent a risk of non-compliance of the Environemtnal license.</p> <p>UF: ALL PS/EP: PS1, PS3</p>	<p>Biannual – Next Envi. And social report.</p>	<p>New Action</p>	

8 Photographic Record

 <p>Required subtraction areas UF 5</p>	 <p>Environmental authorities visit to El Cairo community waterbody</p>	 <p>Health and safety practices</p>	 <p>Protection of watercourses</p>	 <p>Air quality measurements</p>
 <p>Excavation materials in work fronts</p>	 <p>Bathroom maintenance activities</p>	 <p>Forestry use management activities</p>	 <p>Archaeological excavations in "El Indial"</p>	 <p>Water springs in UF 2</p>

 <p>Soil protection and emergency plan preparedness</p>	 <p>Air quality monitoring</p>	 <p>Dust and excavation materials in work fronts</p>	 <p>Tesalia Exit Portal WTP</p>	 <p>Water pumping Tesalia entrance portal</p>
 <p>Sludge press in the WTP of Tesalia entrance portal</p>	 <p>WTP minor change in Tesalia entrance portal</p>	 <p>Petroglyph protection and status</p>	 <p>Truck mixers wash evidenced during the site visit in the WTP of Irra Tunnel</p>	 <p>Adequate health and safety practices</p>