

## 7.5 Compliance with Supervision Monitoring

The Concessionaire is complying with the Supervision observations. Between July and December 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 83 % for UF3.1 and the highest rate is 98% for UF1.

Table 11 Compliance with Supervision monitoring

%	JUL	AUG	SEP	OCT	NOV	DEC	Average
<b>UF 1</b>	98	98.0	98	98	98.0	98	98
<b>UF 2</b>	96	96.0	96	96	96.0	93	95
<b>UF 3.1</b>	88.0	84.0	83.0	82.0	82.0	81.0	83
<b>UF 3.2</b>	88.0	88.0	88.0	87.0	87.0	88.0	87
<b>UF 4</b>	96.0	96.0	96.0	96.0	96.0	96.0	96
<b>UF5</b>	93.0	93.0	93.0	93.0	93.0	93.0	93

## 8 Action Plan

To December 2019, the Action Plan has nineteen (19) activities. Ten (10) of them correspond to “on track” activities, five (5) are solved, and four (4) are new actions proposed after the site visit and the document review. 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 current status of the activities is shown in Table 12 and has been evaluated with the following color coding.

■ Solved     
 ■ On Track     
 ■ Pending     
 ■ New Action

Table 12. Environmental and Social Action Plan

No.	Proposed Action	Proposed Deadline	Status (Updated December 2019)	Color code
1	<p><b>Property Acquisition- Compensation mechanisms:</b> 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><b>UF: 5</b> <b>PS/EP:PS5</b></p>	Biannual – Next Envi. And social report.	<p>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.</p> <p>The Concessionaire’s proposal was submitted to the Owner on November 18th, 2019, and the Concessionaire continues to wait for an official response. Arup will continue tracking this process until the property acquisition and relocation of social units reaches an end.</p>	
2	<p><b>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.</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>	Biannual – Next Envi. And social report.	<p>The request for relocating the petroglyph was approved by ICAHN through AUTO no. 7360, December 23rd, 2019 and the Concessionaire is planning to relocate it in the first quarter of 2020.</p> <p>Regarding El Indial area, the Concessionaire will have an additional 2 months and 24 days to complete works once archeological interventions are completed. In La Bamba the archaeological activities were concluded. Arup will continue</p>	

	<p><b>UF:</b> All  <b>PS/EP:</b>PS8</p>		<p>tracking this process and its implication in the development of the Project.</p>
<p>3</p>	<p><b>Entrance portal of Irra Tunnel:</b> 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> <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><b>UF :</b> 4  <b>PS/EP:</b> PS1 and PS4</p>	<p>Biannual –                  Next Envi. And                  social report.</p>	<p>During the site visit, it was evidenced that the Concessionaire finished the construction activities in the tunnel and ANLA visited the area without generating additional requirements.</p> <p>This action is marked as “Solved”.</p> 
<p>4</p>	<p><b>Environmental sanctioning process:</b> 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>Biannual –                  Next Envi. And                  social report.</p>	<p>During the evaluated period the Concessionaire 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><b>UF : 1</b> <b>PS /EP: PS1</b></p>				
<p><b>5</b></p>	<p><b>Materials disposal – ZODMES:</b> The Concessionaire has identified 40 ZODMES, from which 7 are in use, 9 ready to use when necessary, 16 are enclosure process, 5 desisted and 3 are in the authorization process</p> <p>Arup evidenced that five ZODMES does not comply with the hydraulic and runoff protection established in the environmental management plans of the project. Therefore, the Supervisor opened a cure period requesting the Concessionaire to install sediment barriers and complete their drainage infrastructures.</p> <p><b>UF: All</b> <b>PS/EP:PS6</b></p>	<p>Immediately – Next Technical report.</p>	<p>Arup evidenced improvements in the hydraulic systems of Zodmes however, these procedures remain in process with the Supervisor. Arup requests the Concessionaire to report the efficiency of the installed systems in the next technical monthly report.</p> <p>Arup will continue tracking this process.</p>	
<p><b>6</b></p>	<p><b>Disclosure of information – PQRS system:</b> 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 to prevent air quality and noise affectation, especially in the populated areas near the work fronts.</p> <p><b>UF: ALL</b> <b>PS/EP: PS1, PS3</b></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><b>7</b></p>	<p><b>Working conditions – work force layoff:</b> 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>Biannual – Next Envi. And social report.</p>	<p>Arup evidenced the Concessionaire has defined specific staff layoff programs. Arup request the Concessionaire to continue reporting all the programs statistics and effectiveness of the implemented measurements.</p>	

	<p>Arup request the Concessionaire to report all the programs, activities, statistics and effectiveness of the implemented measurements.</p> <p><b>UF:</b> ALL <b>PS/EP:</b> PS2</p>		<p>Arup will continue tracking this process.</p>	
8	<p><b>Fauna management measures:</b> 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><b>UF:</b> ALL <b>PS/EP:</b> PS6</p>	<p>Biannual – Next Envi. And social report.</p>	<p>Arup evidenced the Concessionaire is implementing effective fauna passages. This action is marked as “Solved”.</p>	
9	<p><b>Environmental License – Permits Modification:</b> 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>Arup request the Concessionaire to inform about the progress of this procedure and submit in the next E&amp;S report the estimated date for the approval of the subtraction permit.</p> <p><b>UF:</b> 5 <b>PS/EP:</b> PS1, PS6</p>	<p>Biannual – Next Envi. And social report.</p>	<p>In September 2019, the Concessionaire submitted to Corantioquia the official request of the environmental permit modification. In December 2019, Corantioquia carried out the technical visit and held a meeting with the Concessionaire to request further technical information. The Concessionaire submitted the complete information in January 2020. Corantioquia evaluation remains in process.</p> <p>Arup request the Concessionaire to inform about the progress of this procedure and submit in the next E&amp;S report the estimated date for its approval.</p> <p>Arup will continue tracking this process.</p>	
10	<p><b>Emergency and contingency plan:</b> 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><b>UF:</b> ALL <b>PS/EP:</b> PS1, PS4</p>	<p>Biannual – Next Envi. And social report.</p>	<p>As requested in the past monitoring period, The Concessionaire update and submit to the authorities the updated Emergency and Contingency Plans of the project, in compliance with the national Decree no. 2157, 2017.</p> <p>This action is marked as “Solved”.</p>	

11	<p><b>Water treatment in Tesalia Tunnel:</b> Arup evidenced that the water flows of the WTP of the exit portal is reaching its design flow (actual flow: 30 -35 l/s, design flow: 40l/s). Due to the upcoming end of the excavation activities in the Tesalia Tunnel, which will add an estimated of 44 l/s from the entrance portal, the Concessionaire should adjust the water treatment system on the Tunnel, request ANLA a modification / minor change of the environmental license and construct the new system to comply with the discharge flows amount and quality.</p> <p><b>UF:</b> 2.2</p> <p><b>PS/EP:</b> PS1, PS3</p>	Immediately – Next Technical report.	<p>In September 2019, the Concessionaire hired a company for the design of a new water treatment system that collects and treat the infiltration flow for the whole Tunnel. The optimized plant will have a capacity of 110 to 120 l/s and will be located in the exit portal (once the excavation activities reaches an end). In the meantime, the overflows are planned to be managed according to the approved pumping in the entrance portal of the Tunnel, complying with the water discharge characteristics.</p> <p>Arup request the Concessionaire to submit the final designs and the management measurement that are implemented until the approval of the minor change.</p> <p>Arup will review the advances of the environmental license minor change in the next monthly technical report.</p>	
12	<p><b>Water springs UF 2:</b> The Concessionaire found that the water springs M-01, and M-02 supply La Esperanza aqueduct (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><b>UF:</b> 2</p> <p><b>PS/EP:</b> PS1, PS3</p>	Biannual – Next Envi. And social report.	<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.</p> <p>More recent results, including the water springs, M-03 a P-05 are pending to be submitted to the independent engineer.</p> <p>Arup requests the Concessionaire to submit all the in the next monitoring period and to continue implementing all the 1 measurements imposed by ANLA.</p> <p>Arup will continue tracking this process.</p>	
13	<p><b>Pollution prevention- hydraulic structures:</b> 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>	Immediately – Next Technical report.	<p>Arup continues evidencing several hydraulic works without the implementation of all the protection measurements (see photographic record).</p> <p>Arup requests the Concessionaire to implement all the corrective measurements to comply with the environmental permits</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><b>UF:</b> ALL  <b>PS/EP:</b> PS1, PS3</p>		<p>'obligations and the environmental management plans of the project.</p> <p>Arup will continue tracking this process.</p>
<p>14</p>	<p><b>Water management – El Cairo aqueduct:</b> During the evaluated period, the Concessionaire received the PQR No. 10-78 (May 5<sup>th</sup>, 2019) related to the petition of information of the community El 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><b>UF:</b> ALL  <b>PS/EP:</b> PS1, PS3</p>	<p>Biannual –                  Next Envi. And                  social report.</p>	<p>During the evaluated period, the Concessionaire carried out all the additional studies and in December 2019 socialized the results with the community and Corpocaldas, in which it was evidenced that the infiltration waters of the tunnel do not have an impact on the water stream. The Concessionaire also supported the community el Cairo in the request of the environmental permit and planting trees near the water intake.</p> <p>Arup will continue tracking this process until the official closure of the PQR.</p> 
<p>15</p>	<p><b>Environmental License – Mixer truck wash:</b></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 Environmental license.</p> <p><b>UF:</b> ALL  <b>PS/EP:</b> PS1, PS3</p>	<p>N/A</p>	<p>During the evaluated period this action was solved</p> 

<p>16</p>	<p><b>Landslides in UF 3.2 – Archaeology impact:</b> At approximately K6+100 to 400, recurring landslides represented a risk to the archaeological activities that were being developed in Matata area. Arup request the Concessionaire to submit the information regarding the end of the archaeological activities in this site and the affectation that the landfills represented to the cultural heritage of the region.</p> <p><b>UF: 3</b>  <b>PS/EP: PS1, PS8</b></p>	<p>Biannual –                  Next Envi. And                  social report.</p>	<p>New Action</p>	
<p>17</p>	<p><b>Compliance of the Environmental Management Plan:</b> During the site visit Arup evidenced several corrective actions required in El Palo bridge and in the Concrete and Asphalts camps. Arup request the Concessionaire to comply with all the actions summarized in Section 7.4 - Table 9. Its compliance will be evaluated in the next technical report.</p> <p><b>UF: ALL</b>  <b>PS/EP: PS1, PS3</b></p>	<p>Immediately –                  Next Technical                  report.</p>	<p>New Action</p>	
<p>18</p>	<p><b>ANLA – Resolution 02094, October 21<sup>st</sup>, 2019:</b> ANLA imposed to the Concessionaire a preventive measure prescribing the immediate suspension of the operation activities of a ready mix concrete plant located in K 8+820, and the suspension of two temporal material storing near La Libertad school, arguing that any of these activities and sites are approved in the environmental license. The Concessionaire suspended the activities and correct the impacts generated through the revegetation of the affected areas and the relocation of the concrete plant. Arup request that the Concessionaire reports the closure of this procedure with ANLA and disseminate the developed activities with the affected communities (web page, flyers, meetings among others)</p>	<p>Biannual –                  Next Envi. And                  social report.</p>	<p>New Action</p>	

	<p><b>UF: ALL</b>  <b>PS/EP: PS1, PS3</b></p>	
<p><b>19</b></p>	<p><b>Irira Tunnel - Environmental O&amp;M permits:</b> Regarding the concluded construction activities in the tunnel, Arup request the Coccessonianire to submit the studies and procedures carried out with the environmental authorities related to the water discharges and concession permits required fo the operation of the Tunnel.</p> <p><b>UF: 4</b>  <b>PS/EP: PS1, PS3</b></p>	<p>Biannual –                  Next Envi. And                  social report.</p> <p>New Action</p> 

## 9 Photografic 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>
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 <p>Irra Tunnel</p>	 <p>Work at heights at El Palo Bridge in UF5</p>	 <p>Vehicle access to the Supia River that must be closed.</p>	 <p>Inadequated storage of materials and tool at El Palo Bridge”</p>	 <p>WWTP at Irra Tunnel</p>
 <p>Slope protection and management at entrance portal in Irra Tunnel.</p>	 <p>Archaeological activities at El Indial</p>	 <p>Materials covered at MHC Plant</p>	 <p>Inadequate storage and management of wood waste at MHC Plant</p>	 <p>Slope works at PR3+500 at UF 2.3</p>



Hazardous waste storage at MECO Plant



Slope protection in UF 2.3



Inadequated storage of steel waste at MECO Plant



Meeting with Belalcazar Municipality representatives that will have the final custody of the archeological findings of UFs 1 and 2



Relocation of the concrete plant at the exit portal of the Tesalia tunnel.