

**IN THE MATTER OF AN ARBITRATION UNDER THE DOMINICAN
REPUBLIC CENTRAL AMERICA FREE TRADE AGREEMENT AND THE
UNCITRAL RULES OF ARBITRATION (2010)**

**DAVID R. AVEN, SAMUEL D. AVEN, CAROLYN J. PARK, ERIC A. PARK,
JEFFREY S. SHIOLENO, DAVID A. JANNEY AND ROGER RAGUSO
(United States of America) (Claimants)**

v

THE REPUBLIC OF COSTA RICA (Respondent)

**SECOND WITNESS STATEMENT
OF MINOR ARCE SOLANO**

I, **MINOR ARCE SOLANO**, of San Luis, Santo Domingo de Heredia, Costa Rica, SAY as follows:

1. I am the same Minor Arce Solano who gave a witness statement on November 13, 2015 (my "**First Witness Statement**"). I make this second statement in support of the Claimants and their Reply Memorial in these proceedings.
2. The matters contained in this witness statement are true to the best of my knowledge, information and belief. The facts and circumstances contained in this statement are within my own knowledge or derived from information and documents provided to me by those reporting to me, in which case I refer to the corresponding source of information.
3. I confirm that the Claimants' lawyers, Vinson & Elkins RLLP and Batalla Abogados, have assisted me in preparing this statement, but I also confirm that its contents set out my evidence to the Tribunal in these proceedings.
4. In preparing this statement I met with Batalla Abogados to discuss my involvement in the Las Olas project. As I do not speak English, my statement was prepared in Spanish, prior to being translated into English.

5. I make this statement to address matters arising from the Respondent's Counter Memorial dated April 8, 2016, as well as the Respondent's evidence, expert reports, and witness statements referred to therein.

6. In my First Witness Statement, I have already set out the background to my involvement in the Las Olas project and I will not repeat that here. In this statement, to the extent that I am able, I provide further details of my involvement with the Las Olas project and respond to other discrete issues raised by the Respondent.

I. April 26, 2009 Site Visit and Report by the Municipality of Parrita

7. I have read paragraph 187 of the Respondent's Counter-Memorial, in which the Respondent refers to a visit to the Las Olas site carried out by the Environmental Supervisor of Parrita, Ms Vargas, on April 26, 2009, in which she determined that trees had been felled and burned there.

8. The first time I visited the Las Olas project was in September 2010, around eighteen months after Ms. Vargas's alleged April 26, 2009 visit. I did not observe felling of trees, but rather I saw they were clearing some grassy areas, which was being done by several workers hired for the project. I do not remember the number of workers. The procedure observed for the clearing was basic, using a machete as the main tool. I did not see any signs of burning or signs that they had materials for burning. Nor did I see felling of trees, only clearing of weeds.

9. As I explained in my First Witness Statement, the objective of that first visit was to analyse whether several trees fronting the public road and affecting power lines could be felled. In this respect, the areas I was able to observe were in the western section of the property, which borders the entrance road for the beach of Esterillos Oeste, so I did not see the entire property. The route I took on my visit was in the section called the easements section.

10. It is important to note that from my site visit and the analysis I carried out in my capacity as forest engineer, I determined that there were several tree species (coral tree (*Erythrina* SP) and pochote (*Pochota quinata*)) for which there are no restrictions for felling under Article 28 of the Forest Act/Law 7575.

11. Something that is interesting to highlight about the species of trees planted is that they reproduce through cuttings (parts of branches). This means that by merely cutting a branch and planting it, it will take root and sprout, becoming a new tree. In Costa Rica, it is common practice for these branches to be used to mark property boundaries, using these branches as a natural, living fence. These species of planted trees (which can be felled without a permit) are very common and are not unique to wetlands, because they are able to adapt to various climates and terrains.

12. I have reviewed the documents labelled as **R-23** and R-26 of the exhibits to Costa Rica's Counter-Memorial, which are (i) the complaint by the residents of Parrita which prompted Ms. Vargas's April 26, 2009 site visit and (ii) Ms.

Vargas's consequent inspection report. With regard to this, I have the following comments:

- (a) The residents who filed the complaint are not experts in forest matters or wildlife, let alone wetlands.
 - (b) Ms. Vargas reported that she observed felling and burning of trees from a distance since she could not enter the property but she does not identify the trees in question. With respect to this, it is important to remember that not all tree felling is prohibited in Costa Rica, and, as I have said, at the time of my site visit in September 2010, I found species of trees on the property that do not require felling permits. It is therefore possible that Ms. Vargas observed felling of trees that did not require a permit.
 - (c) It is odd that April 26, 2009 was a Sunday, and in paragraph 14 of her witness statement Ms. Vargas states that civil servants do not work on weekends.
 - (d) As for Ms. Vargas's report of the site visit (R-26), six photographs are attached:
 - (i) Fig. 1, 2 and 5 – There is no reference to where these beautiful photographs were taken; they could be from anywhere in Costa Rica or the world.
 - (ii) Fig. 4 – A description is included which is not precise, since it indicates that there is a "*forest in the background*"; however, the term "*forest*" has a legal connotation (Article 3 of the Forest Act), and in that photo we can see – at first glance – herbaceous vegetation that cannot be classified as forest. This classification is supported by my 31 years of experience, which allow me to accurately determine whether an area qualifies as a forest or not. It is clear that for this a more detailed study is necessary, but there is no doubt that the aforesaid image is sufficiently clear and shows no indication that it could be a forest under the provisions of Article 3 of the Forest Act.
 - (e) Finally, in the report, I note that there is no information provided regarding Ms. Vargas's credentials as an expert in forest topics. This is very common in Costa Rica – for everyone to think they are experts in forest topics when in fact it is a highly specialized branch of engineering with a very robust legal framework. It is also clear that people refer to a group of trees as a forest without substantive knowledge on forests or on what is legally considered as such.
13. Regarding the burning Ms. Vargas claims to have observed in April 2009 (R-26), this is within the driest time of the year, which makes the occurrence of fires caused by criminal actions, accidents, agricultural activities and hunting activities more likely. Thus, there is absolute no certainty as to how the alleged burning took place. It could have been down to any of these causes.

14. As a reference, I attach the Press Release of the National Fire Management Program of the National System of Conservation Areas (SINAC) - Ministry of the Environment and Energy (MINAE),¹ which states that during 2015 in Costa Rica a total of 40,350 hectares were burned, which is an increase of 9,310 from 2014, all because of fires. This press release notes that almost 50% of forest fires occur as a result of vandalism. It is also reported that 99% of fires occur in the Pacific watershed.

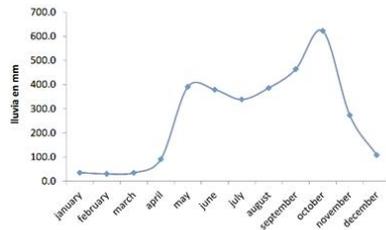


Gráfico 1. Tendencia de lluvia promedio durante el año según la información de las estaciones climáticas del IMN más cercanas a Esterillos Oeste: Jaco y Parrita.

(page 98 of the KECE report)

15. With regard to the methodology employed in Ms. Vargas's report, as I stated previously, her report is a simple observation based on the statements of alleged residents of the area; however, no scientific or conclusive evidence is provided that could serve as methodological support for the conclusions drawn. It is important to keep in mind that there are many types of trees and some of them, such as fruit trees, ornamental trees and cultivated forest trees, can be felled if one chooses to do so without any legal consequences, since the law allows felling of certain species, a fact which I identified at the time of my inspection of the Las Olas site in September 2010.
16. Additionally, I have also reviewed Ms. Vargas's witness statement (paragraph 11) and in my opinion it is not possible, technically or legally, to conclude through mere observation that the area in question is a forest, since, for example, it is necessary to take tree density measurements, trunk diameter measurements and to determine species type, height, area and coverage. If these measurements have not been taken, it cannot be concluded that the area in question is a forest or that there were protected trees under the law. Ms. Vargas's conclusion can be contrasted with my observations to determine that figure 4 of her report (R-26) is clearly not a forest, since my observations are based on my 31 years of experience, which give me the ability to reach an accurate conclusion according to the technical criteria established in the legal definition of a forest.
17. In the circumstances therefore, I do not believe it is possible to conclude that the trees in question were part of a forest area, for the following reasons:

¹ Exhibit C[] Press Release of the SINAC-MINAE National Fire Management Program

- (a) There are different categories or types of trees, among which are the following: fruit trees, forest trees, ornamental trees, medicinal trees, among others. The Forest Act is a special law that only covers one of those different categories: **forest trees**; which means that there are no regulations applying to felling of the other categories.
- (b) I previously explained that the Forest Act establishes certain species of forest trees that can be felled or cut down without restrictions, in accordance with Article 28 of the Forest Act, which states the following, verbatim: *"Felling permit exception. Forest plantations, including agroforestry systems and trees planted individually and their products, require no permit for felling, transportation, processing or export. However, in cases in which there is a forest contract executed before the effective date of this law with the Nation to receive Forest Credit Certificates or income tax deductions, felling must be carried out in accordance with the management plan approved by the National Forest Administration."*

- 18. In this context, regarding Ms. Vargas's report, in particular figure 4, which is accompanied by the legend "*Forest in the background*", it is not technically correct to state that the area in question is a forest, since there is no evidence whatsoever to determine that the legal requirements are met for such a conclusion, and from an examination of figure 4 no forest can be observed, and there are no signs of burning.
- 19. As for the term "*forest area*" employed by Ms. Vargas, I should note that it is a very broad term that is not defined in the Forest Act or its regulations. Since it is not a legal term, and since it is not contained in the respective legislation, it has no relevance to a forest engineer when carrying out an analysis regarding tree felling.

II. 2010 Site Visits and Consequential Reports by the Municipality of Parrita

- 20. I have reviewed Ms Vargas's three reports dated May 31, 2010 of her January and May 2010 site visits, in which she claims to have observed that "*felling and burning of trees had continued.*" As I stated earlier, these visits and reports predate my involvement with Las Olas.
- 21. However, when I first visited the Las Olas site in September 2010, I saw no evidence of tree felling or burning in the sections I visited and as with Ms. Vargas's report of her April 2009 inspection, a number of methodological problems can be noted with her reports:
 - (a) Her affirmations regarding the alleged felling and burning of trees are based on statements from area residents. As I have noted previously, there are different species of trees, and not all species are of interest to

the legislation, and there are some that the legislation does address that do not require felling permits, so it may be the case that trees were felled that did not require a permit to do so.

- (b) From the affirmations contained in Ms. Vargas's report, it is possible to conclude that she is not an expert in forest or wetland matters; therefore, the contributions she can make on these topics are extremely limited and not in line with the technical legal terms established by the law.
22. With respect to the report DeGa-090-2010 (R-29), it is also apparent that Ms. Vargas is not an expert in wetlands. Her report confirms that at least as of May 31, 2010 there was no certification that could be used to indicate that the land where "Las Olas" would be developed consisted of a wetland.
23. With regard to the report DeGa-091-B-2010 (R-204), this is a document without seals or signatures of Municipal officials. It is also a document different from but similar to DeGa-091-2009 (C-67) dated May 31, 2010, and that of 16 June 2010. However, I do not understand why documents are issued with the same official letter numbers when their content is very similar but there are differences between them. Notwithstanding the above, I will comment on the three documents:

- (a) Regarding DeGa-091-B-2010 (R-204)

In item 1, the report refers to the DeGa-049-2009 report, which details the alleged inspection conducted on Sunday, May 29, 2009, a day on which Ms. Vargas herself states she does not work (paragraph 14 of her witness statement)

In item 3, Ms Vargas states that the area has the characteristics of a wetland, but she does not detail any of the supposed characteristics. Additionally, from the reports DG-049-2009 and DG-090-2010, it would seem that Ms. Vargas recognizes her lack of knowledge in the field of wetlands, which makes it difficult to understand how, in this new report, she concludes so confidently that the area in question is a wetland. There is not a single objective technical criterion in her report in this regard.

In the section containing her reasoning, she bases her conclusions on the statements of the residents regarding alleged activities carried out on weekends. With respect thereto, I reiterate what I have said in my previous answers, particularly that no evidence is provided to show whether the residents are experts in forest topics, and there is therefore no scientific or technical basis to state that the trees that have allegedly been felled are species requiring felling permits.

- (b) Regarding DeGa-091-2009 (C-67)

I note that the heading differs greatly since in official letter DeGa-091-B-2010 (R-204) the owners are listed. The text is otherwise similar.

- (c) Regarding DeGa-091-2009 (C-70).

Unlike the previous one, this document is directed to Mr. Carlos Cordero, who served as director of the Central Pacific Conservation Area (ACOPAC). This document also lists a series of companies that the previous document does not mention. The information is otherwise similar.

24. Ms. Vargas's reports constitute a series of observations and simple restatements of what local residents told her, without applying technical-legal criteria; there is no concrete information to identify the type of tree, size, characteristics, whether those trees required permits or if they could be felled without restrictions. It is very important to bear in mind that felling trees in itself is not a crime, and that there are trees that do not require permits to be felled.
25. As for the report DeGa-092-2010 (R-30), it has nothing to do with trees and is consequently beyond the scope of my knowledge.

III. SINAC Site Visits I 2010 and SINAC Report of January 2011

26. I have read the January 3, 2011 SINAC Report on Las Olas, which refers to the illegal felling of approximately 400 trees. This report has absolutely no methodology or reliable procedure used to obtain accurate information and reach reliable conclusions.
27. In the first instance, the report uses words or adjectives that are imprecise, such as "many," "a great number," "approximately," "a lot," etc., and which are very subjective. Moreover, what is asserted in the report are the statements of the people who allegedly live in the area. I should add that nowhere in the report are the names of the residents given, nor their education, to determine whether they are experts in forests and wetlands, nor is evidence provided to prove they have lived in that area for the time they say they have.
28. This is not appropriate for a scientific report, nor is the methodology applicable to a scientific report; rather, it is a collection of subjective, non-quantitative, unsubstantiated observations.
29. With respect to the stated number of trees, this is an assumption made by the report, since there is no count of the individual trees. To have a demonstrable method, they should have gathered minimum information, such as tree diameter at breast height, total height, species and location. Note that the author of the report states that: "*they could not be counted individually, we believe there are over 400*", clearly this indicates that the author does not have the data and the number is a purely personal opinion, which could be wrong because it is not scientifically substantiated.
30. As a result, the report's conclusions are assumptions or presumptions, as they indicate in conclusion 1 and 2. In conclusion 3, it is stated that vegetation has been cleared and trees have been cleared. But no information is presented

regarding what trees were cleared and their characteristics; this is an unquantifiable observation of the author.

31. Not all tree felling is prohibited in Costa Rica. The fact of the matter is that many people who are unfamiliar with the law and, moreover, a major part of the population, become alarmed when they see felling of trees. However, our Forest Act is very clear, and it defines which trees can be felled without the need for a permit from the National Forest Administration. Therefore, with respect to tree felling, we cannot rely solely on the opinion of anonymous alleged residents or people who may have significant biases, are likely unfamiliar with the technical-legal requirements, or potentially seek to report a person and state that trees are being felled, where it may be legal to fell such trees without a permit.
32. With respect to my site visits, I should note that I visited Las Olas for the first time in September 2010 and my second visit was in November 2011.
33. On my first visit, as I stated, I was in the western section of the property, in what is called the easements area, so this is not an area that coincides with the area reported with regard to tree felling. Nonetheless, I did not observe any evidence of felling or burning of trees.
34. On my second visit, I did visit the area indicated within the Las Olas Condominium Site, and what I did was gather information to review the accuracy of the ACOPAC-CP-099-11 report. My conclusion at that time, and which I maintain to date, is that, on the basis of the information gathered by MINAE, it could not be inferred that there is a forest on the site because, *inter alia*:
 - (a) MINAE bases its conclusion solely on the number of trees, which is only one of the criteria to be used to determine whether a geographic area is a forest.
 - (b) MINAE includes species that are not considered forest species (e.g., page 2 of the report lists the tree species royal palm (*Attalea butyracea*).
 - (c) MINAE includes trees that do not meet the minimum diameter requirement established by the Forest Act. Trees with diameters under 15 cm have therefore been counted.
 - (d) The civil servants do not even specify where on the "tree" they measured the diameter.
 - (e) The selection of sampling areas lacks reliable statistical methodology, since it was done in a completely subjective fashion by the civil servant who carried it out.
35. In this regard, it is my professional opinion that it cannot be reliably concluded from the January 3, 2011 SINAC Report that 400 trees were felled at Las Olas.

IV. Residents' Complaint and October 2011 SINAC Report

36. I have read paragraph 206 of the Respondent's Counter-Memorial, in which the Respondent refers to a complaint made by a neighbour of Las Olas on October 1, 2011 to the SINAC office in Parrita for allegedly felling trees on the Las Olas site and the resulting October 2011 SINAC Report in which SINAC (i) describes that trees had been felled and burned and that their residual matter had been covered by earth; (ii) reported that a strangler fig tree located at the edge of the property had been felled; and (iii) concluded that the affected forest area was 2.06 hectares.
37. The report in question states that interviews were conducted with people who allegedly worked at the site, but there is no audio evidence to support the veracity of what was stated, nor is there sufficient information to corroborate what is stated in the report regarding the alleged individuals who were interviewed.
38. It is simply a report of observations, and it may have some degree of bias because of the history of the visits. I note that the author states from the start that Las Olas is in a forest, without first confirming that it is actually in a forest in accordance with current law.
39. The author also states that he observed that a tree 12 cm in diameter was being cut at ground level. He does not indicate the species of the tree nor the methodology used to make the measurement; we do not know whether the diameter measurement was in fact made at ground level or breast height (*DBH at height of 1.3 m*) which is the universal measurement used and required by national law.
40. If a tree is measured at ground level, this measurement significantly alters the size, because at ground level the trunk of the tree is much larger because of the natural conicity of trunks which causes a trunk to increase in diameter at the base and reduce in diameter as you move up.
41. I note that the author states that the diameter of the tree was measured, which suggests that diameter was measured at ground level, since, otherwise, when diameter is measured at breast height, i.e., 1.3 meters from ground level, it is indicated that the DBH of the tree was measured.
42. Another important aspect to consider is what instrument was used for this measurement, since on occasion a measuring tape is used and the diameter is measured transversely; this can have a considerable factor of error since trees do not form a perfect circle but rather have irregularities that can alter the diameter measurement.
43. With regard to the alleged presence of a strangler fig tree at the Las Olas site, on my visits to the site, I did not see any strangler fig trees; however, several observations are in order with regard to this species:

- (a) The strangler fig is generally speaking a parasitic tree; i.e., it takes advantage of the existence of another tree or a living or dead host to prosper.
 - (b) Being a parasitic tree, and as it was on the boundary of the site according to the report, it is very likely that this tree was part of the dividing fence of the property; i.e., it established itself on a post of the dividing fence and it grew freely. Naturally, it is noted that the owners have given the tree the necessary care, as it has reached a notable level of development. This would allow it to be included under Article 28 of the Forest Act, pertaining to planted or cultivated trees that may be cut without restrictions. It is useful to clarify that the act of cultivating does not strictly involve the planting of an individual, but rather refers to giving the necessary care to a plant until it has properly developed.
44. I should add that I never saw any men or women felling trees on the Las Olas site during my visits, regardless of the species or whether they required a permit or not.

V. Appendix 9 of the KECE Report

45. I have also reviewed Appendix 9 to the Respondent’s KECE report, which was prepared by Mr. Pablo Sánchez and Mr. Luis Poveda and sets out a list of plants allegedly observed at the Las Olas site during the Respondent’s experts’ visit.
46. Although I am not an expert in taxonomy, I am very experienced in forest classification and I have noted several errors and scientific flaws in Appendix 9. By way of example, I point out the following:
- (a) On page 103 of the KECE report, it is possible to observe how out of step the individuals who prepared the report are; they refer to the pochote trees as *Bombacopsis Quinata* when this term changed over 10 years ago, and it is known as *Pochota Quinata*.
 - (b) Another important point is that *Pochota Quinata*, contrary to the information provided in Appendix 9, is not exclusive to wetlands, as it can also be found in completely dry and arid places.
47. I believe the facts stated in this WITNESS STATEMENT are true.

Commented [A1]: Could we not have more examples of his criticisms?

Signed.....

Minor Arce Solano

Date.....