

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

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

vs.

THE REPUBLIC OF COSTA RICA (Respondent)

**FIRST WITNESS STATEMENT
OF MINOR ARCE SOLANO**

I, **MINOR ARCE SOLANO**, resident of San Luis, Santo Domingo de Heredia, Costa Rica, STATE the following:

1. I am providing this statement in favour of the Claimants' Memorial in these proceedings.
2. The information contained in this witness statement is true to the best of my knowledge and understanding. The facts and circumstances contained in this statement are based on my own knowledge or are derived from information or documents that were provided by my subordinates, in which case I provide reference to the source of the corresponding information.
3. I confirm that counsel for the Claimants, Vinson & Elkins RLLP, have assisted me in preparing this statement, but I also confirm that its contents express my statements and knowledge before the Tribunal in these proceedings.
4. In preparing this statement, I met with counsel for the Claimants to speak about my participation in the Las Olas project. As I do not speak English, I am making my statement in Spanish. My statement was prepared in English by Vinson & Elkins, prior to being translated into Spanish so that I could review it and make comments on it with the assistance of the Claimants' local lawyers, Batalla Abogados. I then signed the Spanish version of my statement.

Background

5. I hold a bachelor's degree in forestry from the Technological Institute of Costa Rica. I graduated in 1984 and I am a member of the Agronomist Association of Costa Rica.
6. I have worked as an independent forestry consultant for my entire career, with the exception of one year (from 1985 to 1986) during which I worked for a non-governmental organization. I have extensive experience as a forestry consultant, as I have worked in all types of projects in the forestry field. As a forestry expert, I frequently work together with various environmental service companies in the preparation of documents to obtain environmental feasibility from the National Environmental Technical Secretariat.
7. I also act as a Forestry Regent, a position approved by the Agronomist Association of Costa Rica, although I did not participate in this capacity in the Las Olas project. The position of Forestry Regent involves supervising the management of approval permits, conserving forests, reforestation and nurseries; for this purpose it is necessary to establish a three-party contract between the farm owner, the professional and the association. Any report issued as Forestry Regent is submitted to the Ministry of the Environment and Energy (MINAE) for its information and/or approval. Reports prepared in the capacity of forestry professional are not public documents, unlike acts undertaken as Forestry Regent.
8. As a forestry consultant, I advise various private companies and public institutions on different forestry and environmental matters, such as DEPPAT, the former Agrarian Development Institute (IDA) and the Costa Rican Electricity Institute (ICE). I have advised on various projects with ICE such as the Angostura Hydroelectric Dam, the Torito Hydroelectric project and the Unión Fenosa Generadora Torito. I provided advice on forestry infrastructure projects such as Diamond Cove Venture in Parquera Puntarenas and Fallbrook Inc in Cóbano, Puntarenas (studies in the natural heritage of the state). I have also provided advice on various condominium construction projects in forested areas near beaches. I have conducted several studies of vegetation coverage for SETENA (National Environmental Technical Secretariat) for many urban and construction projects. I consulted for the Continental Toothpick Factory on forestry plantations and several studies on tree harvesting in all regions of Costa Rica. I also consulted on several studies for the payment of environmental services to Fonafifo (Forestry Financing Foundation of Costa Rica) for reforestation and protection of forested areas. I conducted several classification studies on the use of soil for coastal zones. I consulted and provided advice on legal actions and settlements for violation of the Forestry Law. I consulted Ganadera la

Flor S.A. in nursery, reforestation, protection and industry projects. I consulted Haciendas de Reventazón for plantations and the timber industry, etc.

My participation at Las Olas

9. At the request of DEPPAT, the Environmental Manager for the project, I participated on two separate occasions in the Las Olas project. The Environmental Manager is responsible for the supervision of a project to ensure that it complies with environmental legislation, and must ensure compliance with all conditions imposed under environmental feasibility requirements. The Environmental Manager records his observations and provides them to SETENA on a regular basis.
10. DEPPAT, in its capacity as Environmental Manager, contacted me for the first time in 2010, because the developers at Las Olas needed to cut down several trees in the course of the project. DEPPAT contracted me to provide technical recommendations about felling the trees and to guarantee that Costa Rican forestry regulations were not being violated. I went to conduct an inspection at the site for this purpose.
11. DEPPAT specifically asked me to inspect the trees located next to the fences and adjacent to the easements on the southwest side of the property next to the public road that runs from the main or coastal highway to the town. In my experience, this work was relatively simple, because there were few trees there.
12. As part of the inspection, I walked around the southwest area of the property, as road works were underway. The area was made up primarily of cow pastures, with a few isolated trees. There were also some small areas of vegetation that had grown profusely, given that the land was not being used as pasturage for cattle.
13. The purpose of the inspection was principally to provide recommendations for the cutting of a few trees that were located in a natural enclosed area that served as a boundary along the main road; it is common for farmers to demarcate their property using trees or hedges, which involves cutting a branch and planting it in the area, and which later grows and becomes a tree. The trees that they wanted to cut down were of the pochote species (Pachiar Quinata), planted as a boundary. Permission from the State Forestry Administration is not required to cut down trees planted as boundaries; they can be cut down without any permission whatsoever, under the terms of article 28 of Forestry Law

7575.¹ Fruit trees are also not covered under the Forestry Law and can be cut down without permission.

14. What I did observe were trees scattered around the property that probably should be cut down to construct internal roadways. In my report of September 2010,² I noted that it would be possible to obtain simple permission from the local office of MINAE to do so, and that the services of a forest engineer were not necessary as long as they didn't cut down more than ten trees. When a developer proposes cutting down more than ten trees, a forestry engineer has to process the necessary paperwork to obtain the permit, with the engineer acting as forestry regent. I saw nothing during my inspection that I would consider forest, and stated as such in my advisory report to DEPPAT in September 2010.
15. The second time I was involved in the Las Olas project was in October or November of 2011, once again at the request of DEPPAT. DEPPAT asked me to get involved with the project due to a complaint from MINAE about illegal felling of trees. In a document dated 7 July 2011 (ACOPAC-CP-099-11), MINAE alleged that a wooded area had been cut down at Las Olas.³ DEPPAT asked me to inspect the site to see if the contents of the MINAE report were correct.
16. I reviewed the MINAE report and checked the sites where tree samples had been taken, which had been indicated in the report. I later visited some sites within the project property to collect the necessary information. Samples were assembled from the same coordinates MINAE used and which they indicated in their report of July 2011. The purpose of my inspection of the property and the analysis was: (i) to verify whether the procedure used by MINAE for collecting the information was carried out according to technical criteria and objectives; and (ii) to determine the accuracy of the information provided in the MINAE report.
17. The methodology for the collection of information consisted in establishing sampling areas at the same spots where MINAE had taken their samples; for this purpose, the spots were located with GPS, and three areas were designated at spots selected by MINAE, and I designated an additional area to provide a larger representation. The size of the areas established by MINAE was 300 square meters, but in our case the areas were expanded to 500 square meters for larger representation. We had to consider that for a more accurate

¹ Exhibit C170, Forestry Law 7575, Article 28

² Exhibit C82, Forestry Report of Minor Arce Solano Concerning the Las Olas Project Site, September 2010

³ Exhibit C134, SINAC Report on Trees at Las Olas, July 7, 2011

statistical analysis, the greater the size and number of areas sampled, the lower the margin of error in the final sampling would be.

Errors in the MINAE report of 7 July 2011 (ACOPAC-CP-099-11).

18. As a result of the analysis of the areas designated on the Las Olas property, I came to the conclusion that it was not possible to determine precisely whether a wooded area did or did not exist on the property of the Las Olas project based on the MINAE report. Some of the errors in the MINAE report were:

- a. MINAE used a totally subjective methodology for designating the sampling areas, as the procedure for previously selecting the sites or areas is not indicated or established in the report. The sampling areas were selected based on the personal choice of the evaluator in the field, without any prior criteria. The designation of the sites or areas for sampling in the field, following the subjective criteria of the individual conducting the evaluation without previously determining the selection system, skewed the data.
- b. MINAE performed no pre-stratification to determine possible sites to evaluate, to the extent that the area under study to determine the existence of a wooded area was not plotted out. It was not possible to tell whether it was the entire property or one sector.
- c. MINAE did not define the parameters to be evaluated in accordance with the terms for defining forest required under article 3 section d) of the Forestry Law (Law 7575).⁴

a) MINAE did not employ sound methodology

19. Prior to conducting a study to determine the existence of a wooded area, it is necessary to specify: (i) the methodology, either “random” or “systematic”, to be used in sampling; and (ii) the extent of the sampling, meaning the percentage of the sample as it relates to the total; the greater the extent of the sampling, the more reliable the final results will be. These two elements, the sampling system and the extent of sampling, are completely omitted in the MINAE report I reviewed. Whichever methodology is decided upon must be determined prior to inspecting the site, and the sampling areas

⁴ Exhibit C170, Forestry Law 7575, Article 3(d)

must be designated at the office. If this is done in the field, it is possible that we would be more subjective. For example, a specific area may be more attractive because it contains trees that look larger, but that area may not be representative of the entire site.

20. The random system consists precisely in that – randomly selecting at the office, not at the site, the sampling areas within a specific area and within a group of possible spots to be chosen. As for systematic sampling, it consists of a fixed method or a system previously determined at the office, not at the site, and it involves applying a fixed sequence. For example, if we were to study the site plans and sketch a grid using longitude and latitude lines, selecting the corners as sampling area spots based on a system that may use only odd or even numbers, or selecting an area for sampling from every five vertices. In both cases, once the sampling is carried out, the sampled surfaces are extrapolated, and the results are applied to the entire area. In its report, MINAE completely neglected to adopt or implement any method prior to the sampling carried out on the property.

b) MINAE did not define the study area or prior stratification of the site.

21. Before conducting any study, the area of influence must be defined; in these cases, it is important to perform stratification or selection of similar areas by first rejecting areas of no interest and then concentrating on areas that may truly be of interest in determining whether or not a wooded area exists. This element was completely omitted from the MINAE report that I analyzed.

c) MINAE did not evaluate the parameters required for defining forest.

22. Based on the definition of forest indicated in Article 3 of the Forestry Law (Law 7575), any study to determine the existence of forest must consider five important criteria:
- a. An exploited or untouched native or indigenous ecosystem regenerated by natural succession or other forestry techniques.
 - b. It occupies a surface area of two or more hectares.
 - c. Characterized by the presence of mature trees of various ages, species and varied appearance.
 - d. Has one or more canopies covering more than seventy percent (70%) of its surface.
 - e. There exist more than seventy trees of fifteen or more centimetres in breast height diameter (BHD).

23. In order to legally define an area as forest, all five of the criteria indicated above must be met. In other words, if any one of them is not met, the area cannot be considered forest. The Regulation of the Forestry Law (Executive Decree No. 25721-MINAE of 25 January 1997) divides these five criteria into three groups.⁵ However, the MINAE study failed to analyze these five criteria or the three groups in accordance with the regulation, and concentrated primarily on analysis of the number of trees per hectare. MINAE solely considered that if this criterion was met the area must be classified as forest, which is inconclusive and totally incorrect.
24. The MINAE study fails to evaluate the other four criteria, which are indispensable in determining the existence of forest. For example, MINAE conducted no evaluation of the existing canopies of the surface covered by the forest, nor did it determine the presence of mature trees of different ages and species. It simply settled for applying a single criterion and indicating that there were more than 60 trees per hectare with diameters of over 15 centimetres within one forest.
25. In considering whether or not forest exists, it is also necessary to understand the definition of a forest tree provided for in article 2 of the Regulation of the Forestry Law (Executive Decree No. 25721-MINAE of 25 January 1997).⁶ Determination of forest must consider solely those trees suitable for forestry under the terms defined by the Regulation of the Law, which means that those trees that do not meet the suitability criteria should not be considered in determining forest. For example, fruit trees or trees that serve no use as timber (such as palm trees) should not be considered.

MINAE counted trees that cannot be classified as forest

26. The MINAE report also indicates that its study included all trees. This was a way of determining the only criterion used (the number of trees per hectare). MINAE included trees that are not included under the legal definition of forest under Costa Rican law. The Forestry Law (Law 7575) establishes that trees with a diameter of at least 15 centimetres must be considered.⁷ MINAE should have only included in its analysis trees equal to or greater than 15 centimetres, and none that were smaller in size. But the MINAE report lists trees with smaller diameters, for example eight centimetres, which should not legally be taken into consideration.

⁵ Exhibit C26, MINAE Executive Decree No. 25721, January 25, 1997

⁶ *Id.*

⁷ Exhibit C170, Forestry Law 7575

27. The report also lists felled trees but does not specify at which height the trunks of these trees were measured. A felled tree would probably be cut below 1.3 meters, the height at which any measurement to determine the height of a tree for purposes of defining forest should be taken. A trunk is normally much thicker at the portion below a height of 1.3 meters (BHD), but the MINAE report omits this completely.

My survey and my conclusions

28. As indicated above in this statement, I visited the project property in accordance with the instructions of DEPPAT to conduct my own analysis of the sites evaluated and indicated in the MINAE report (ACOPAC-CP-099-11). The conclusions I reached were:

- a. The legal requirements to determine whether the area is forest were not met by the surface study carried out by MINAE.
- b. The total property area consisted of paddocks or pastures that were used for raising cattle over a long period and were unused at the time the report was made. Certain types of transitory species of vegetation had grown up, combined with trees that had existed when the area was cattle pasture.
- c. Forest species normally associated with raising cattle were in evidence on the property I inspected. This is the case with guacima (*Gucizuma ulmifolia*), found in stands or groups of trees. With this species, cattle eat its fruit and scatter it in spots where cattle concentrate (rest areas) to eat, take shelter or sleep. Consequently, at the time of the study I found a predominance of this species of tree. Guacima is not a timber tree, nor does it have any forest value. For this reason, a guacima break cannot be interpreted as forest.

29. I have presented my report to DEPPAT and I have heard nothing further from them or from Mr. Aven at this time. I later presented evidence in the criminal proceeding for Jovan Damjanac, where I solely presented the findings of my report.

I hold the facts declared in this WITNESS STATEMENT to be true.

Signature.....

Minor Arce Solano

13 Nov 2015

Date.....