

**University of New Mexico** 



# Neutrosophic Analysis of International Diplomacy and Conflict Resolution

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**Abstract.** International diplomacy has been essential in resolving conflicts in Ecuador. Throughout its history, it has contributed to resolving border disputes and political tensions at the national and international levels. However, there are factors that can negatively influence these efforts. Despite the challenges, diplomacy will always be vital to maintaining the peace and security of the country. This study focuses on analyzing the role of international diplomacy in conflict resolution in Ecuador and evaluating its impact on the stability of the country and the region. The neutrosophic AHP method was used to obtain the factors that can act as obstacles to carrying out effective diplomacy. It was recognized that internal policy can have a negative impact, so solutions are proposed that can contribute to a more effective approach.

**Keywords:** international diplomacy, internal politics, conflict resolution.

## 1. Introduction

International diplomacy is a fundamental tool in the context of relations between nations and, particularly, in conflict resolution. In the case of Ecuador, a country with a rich history of border tensions and political disputes, diplomacy has been essential to maintaining peace and promoting cooperation. This essay explores the evolution of international diplomacy in Ecuador and its contribution to conflict resolution, both nationally and internationally.

International diplomacy is a discipline that involves negotiation and dialogue between different nations to resolve conflicts and promote cooperation. In the case of Ecuador, diplomacy has been crucial in managing relations with its neighbors, especially in border conflicts. One of the most notable examples was the conflict with Peru in 1995, which was resolved through international arbitration, highlighting the importance of diplomacy in the region [1].

Ecuador has faced several internal conflicts throughout its history, ranging from territorial disputes to political and social tensions. The resolution of these conflicts has required the intervention of national and international actors, such as mediators and observers, to achieve sustainable solutions. Conflict resolution in Ecuador has been a complex and multifaceted process that has involved various actors [1].

To effectively address the issue of diplomacy and conflict resolution, Ecuador has done the following:

## Actions carried out by Ecuador:

- ✓ Negotiation of bilateral and multilateral agreements: Ecuador has participated in international treaties and agreements to address conflicts and promote cooperation, such as the Rio de Janeiro Protocol and the Itamaraty Peace Agreement.
- ✓ Mediation in regional conflicts: Ecuador has acted as a mediator in disputes between neighboring countries, demonstrating a commitment to the peaceful resolution of conflicts in the region.
- ✓ Participation in International Organizations: The country has been an active member of organizations such as the Organization of American States (OAS) and the Community of Latin American and Caribbean States (CELAC), which has enabled it to address conflicts and promote regional cooperation.

The negotiation of bilateral and multilateral agreements plays a fundamental role in international relations and in promoting peace and cooperation at a global level. These negotiations allow countries to make progress on a variety of issues, from trade and investment to security and conflict resolution. The importance of negotiating bilateral and multilateral agreements is argued below:

- Bilateral and multilateral agreements provide a framework to resolve disputes and conflicts between nations peacefully. Negotiating these agreements allows countries to address challenges and tensions constructively, contributing to international peace and stability.
- Bilateral and multilateral trade agreements foster economic cooperation by removing trade barriers, promoting investment, and stimulating economic growth. This benefits countries by creating business opportunities and jobs.
- Multilateral agreements are essential to address global issues such as climate change, nuclear proliferation, and the fight against the pandemic. These agreements allow nations to coordinate their efforts and address challenges that transcend national borders.
- The negotiation of bilateral and multilateral agreements involves constant dialogue between countries. This dialogue strengthens diplomatic relations and facilitates communication in times of crisis or tension.
- Boosting trust and predictability: Agreements establish clear rules and mutual expectations between countries. This fosters trust and predictability in international relations, which is essential for long-term stability and cooperation.

Mediation in regional conflicts is a valuable tool in international diplomacy since it can play an essential role between countries or regional actors. By intervening early in a dispute and facilitating dialogue between the parties, mediators can help prevent disagreements from escalating into armed conflict [2]. Mediation encourages diplomacy and dialogue as a means to address problems. Instead of resorting to violence, conflicting parties can sit down to negotiate under the impartial supervision of a mediator, leading to peaceful solutions.

Dispute resolution helps create an environment of greater trust and collaboration in political, economic, and security matters. Successful mediation in regional conflicts can contribute to long-term stability. Agreements reached through mediation tend to be more sustainable and lasting than solutions imposed or resulting from armed conflicts. After regional conflicts, mediation can facilitate reconciliation and reconstruction. It helps lay the foundation for sustainable peace and long-term cooperation [3].

Participation in international organizations is essential for the diplomacy and foreign policy of a country. It provides a platform for cooperation, conflict resolution, coordination of efforts, and the establishment of global norms, and offers the opportunity to influence international affairs and promote the well-being of its citizens [4].

- 1. Promotion of international cooperation: Promotes cooperation and dialogue between nations. These organizations offer a space where countries can meet, discuss common issues, and seek joint solutions.
- 2. Conflict Resolution: Many international organizations have established mechanisms and processes for the peaceful resolution of conflicts. Participation in these organizations allows countries to seek mediation and diplomatic solutions rather than resorting to violence.
- Coordination of efforts: On global issues such as climate change, the fight against poverty, public health, and international security, international organizations allow countries to coordinate their efforts and resources to address challenges that transcend national borders.
- 4. Setting norms and standards: International organizations play a critical role in setting norms and standards in a wide range of areas, from trade to human rights. This creates a regulatory framework that facilitates trade, investment, and cooperation in multiple sectors.
- 5. Trade facilitation: Participation in organizations such as the World Trade Organization (WTO) and regional trade agreements facilitates international trade, which benefits the country's economy and its citizens
- 6. Strengthening voice and influence: Participation in international organizations provides a country with a platform to express its opinion and exert influence on international affairs. This is particularly relevant for smaller countries, as it allows them to have a role in global decision-making.
- 7. Knowledge exchange: Participation in international organizations allows the exchange of knowledge, experiences, and best practices between countries. This can be beneficial for policy development and improved governance at the national level.

#### Actions Ecuador could consider taking:

- ✓ Greater investment in diplomatic training: Ecuador could strengthen its diplomatic capacity through the education and training of diplomats, which would improve its capacity for negotiation and mediation in conflicts.
- ✓ Fostering regional cooperation: Given its geographical role in South America, Ecuador could intensify cooperation with neighboring countries and regional organizations to address common challenges and prevent conflicts.
- ✓ Promoting preventive diplomacy: Ecuador could adopt a strategy of preventive diplomacy, anticipating potential conflicts and working on early mediation to avoid crises.
- ✓ Greater involvement of civil society: The inclusion of civil society in decision-making processes and conflict resolution could improve the representativeness and effectiveness of solutions.
- ✓ Greater transparency in international negotiations: Promote transparency and accountability in international negotiations to gain the trust of the international community and the public at home.

The Cenepa war between Ecuador and Peru is a prominent example of the importance of diplomacy in conflict resolution. Mediation by international actors, such as the OAS, resulted in the Itamaraty Peace Agreement in 1995, which ended the conflict and established a definitive border. The Montecristi Constitution of 2008 represented a milestone in Ecuadorian politics. Diplomacy and dialogue played an essential role in the negotiation of this new Constitution, which addressed internal issues and significant reforms [5].

To resolve a conflict in international matters, it is essential to verify under which system of rules the State or States in dispute will fall under. In addition, there are difficulties in implementing conflict resolution methods due to the presence of a fragmented international legal system and the existence of several competent bodies.

The peace summits have produced a decrease in conflicts due to the promotion of the culture of legal equality and the self-determination of peoples. Despite this, they also indicate that the powers assigned to international organizations by the sovereign interests of the States began to be questioned, compared to the systemic design based on liberal and democratic principles with the right to self-determination of peoples.

The only two Latin American countries that maintain stronger tensions due to a past armed conflict are Bolivia and Chile. These maintain stereotypes about each other, which can affect the negotiation processes, the only possible way to solve the endemic problems in the region. These consequences affect not only the international trade that exists between both countries, and its economic implication, but above all the well-being of the populations of both regions that must carry out joint activities [6, 13].

It's worth noting that among the normative guarantees for the maintenance of peace, the United Nations Charter stands at the forefront. This mentions the methods that States must resort to in order to resolve situations that may endanger international peace and security, among which stand out negotiation, investigation, mediation, conciliation, arbitration, judicial settlement, resort to regional bodies or agreements, or other peaceful means of their choice [3, 12].

The political factors raised within the territory have produced local disturbances and tensions that have very short-term solutions since the sectors' claim lies in the lack of government protection. As long as the affected population does not feel satisfied, the riots will continue and may intensify. Thus, Ecuador must be concerned about a culture of peace attached to human rights beyond paper.

Ecuador should have a permanent table for dialogue and negotiations under the same guarantees of public international law, with historically vulnerable groups. To this end, effective compliance with human rights is guaranteed and, thus, conflicts would be reduced.

The way foreign policy is developed is independent in each country and depends on the gains each seeks to satisfy its specific needs. However, the most powerful countries in the international system aim to project their power by having a foreign policy centered around their military power.

## General objective:

Analyze the role of international diplomacy in conflict resolution in Ecuador, considering its historical and current context, and evaluate its impact on the stability of the country and the region.

## Specific objectives:

- Examine the historical context of international diplomacy in Ecuador and identify the antecedents of border conflicts.
- Analyze specific cases to evaluate how international diplomacy has contributed to the resolution of conflicts at the national and regional levels.

Assess current and future challenges in Ecuador's diplomatic relations, focusing on regional cooperation and international crisis management.

#### 2 Method

## 2.1 Neutrosophic AHP

The Analytical Hierarchical Process (AHP) was proposed by Thomas Saaty in 1980 [7]. It is one of the most widespread methods for solving multi-criteria decision-making problems. This technique models the problem leading to the formation of a hierarchy representative of the associated decision-making scheme. This hierarchy presents at the upper level the objective pursued in solving the problem and at the lower level the different alternatives from which a decision must be made are included. The intermediate levels detail the set of criteria and attributes considered. For the description of the method it is necessary to present the following definitions [8, 9, 11, 15, 16]:

Definition 1: The Neutrosophic [10] set N is characterized by three membership functions, which are the truthmembership function T<sub>A</sub>, indeterminacy-membership function I<sub>A</sub>, and falsehood-membership function F<sub>A</sub>, where U is the Universe of Discourse and  $\forall x \in U$ ,  $T_A(x)$ ,  $I_A(x)$ ,  $F_A(x) \subseteq ]-0$ , 1+[, and  $-0 \le \inf T_A(x)+\inf I_A(x)+\inf I_A(x)+\inf$  $(x) \le \sup T_A(x) + \sup I_A(x) + \sup F_A(x) \le 3 +$ . Notice that, according to the definition,  $T_A(x)$ ,  $I_A(x)$ , and  $I_A(x)$  are real standard or non-standard subsets of ]-0, 1+[ and hence,  $T_A(x)$ ,  $I_A(x)$  and  $F_A(x)$  can be subintervals of [0, 1].

Definition 2: The Single-Valued Neutrosophic Set (SVNS) N over U is  $A = \{\langle x; T_A(x), I_A(x), F_A(x)\rangle : x \in U\}a$ , where  $T_A$ :  $U \rightarrow [0, 1]$ ,  $I_A$ :  $U \rightarrow [0, 1]$ , and  $F_A$ :  $U \rightarrow [0, 1]$ ,  $0 \le T_A(x) + I_A(x) + F_A(x) \le 3$ . The Single-Valued Neutrosophic Number (SVNN) is represented by N = (t, I, f), such that  $0 \le t$ , i,  $f \le 1$  and  $0 \le t + i + f \le 3$ .

Definition 3: the single-valued trapezoidal neutrosophic number,  $\tilde{a} = \langle (a_1, a_2, a_3, a_4); \alpha_{\tilde{a}}, \beta_{\tilde{a}}, \gamma_{\tilde{a}} \rangle$ , is a neutrosophic set on  $\mathbb{R}$ , whose truth, indeterminacy, and falsehood membership functions are defined as follows, respectively:

$$T_{\tilde{a}}(x) = \begin{cases} \alpha_{\tilde{a}}(\frac{x-a_1}{a_2-a_1}), & a_1 \le x \le a_2 \\ \alpha_{\tilde{a}}, & a_2 \le x \le a_3 \\ \alpha_{\tilde{a}}(\frac{a_3-x}{a_3-a_2}), & a_3 \le x \le a_4 \\ 0, \text{ otherwise} \end{cases}$$

$$I_{\tilde{a}}(x) = \begin{cases} \frac{(a_2-x+\beta_{\tilde{a}}(x-a_1))}{a_2-a_1}, & a_1 \le x \le a_2 \\ \beta_{\tilde{a}}, & a_2 \le x \le a_3 \\ \frac{(x-a_2+\beta_{\tilde{a}}(a_3-x))}{a_3-a_2}, & a_3 \le x \le a_4 \\ 1, & \text{ otherwise} \end{cases}$$

$$F_{\tilde{a}}(x) = \begin{cases} \frac{(a_2-x+\gamma_{\tilde{a}}(x-a_1))}{a_2-a_1}, & a_1 \le x \le a_2 \\ \gamma_{\tilde{a}}, & a_2 \le x \le a_3 \\ \frac{(x-a_2+\gamma_{\tilde{a}}(a_3-x))}{a_3-a_2}, & a_3 \le x \le a_4 \\ 1, & \text{ otherwise} \end{cases}$$

$$Where  $\alpha_{\tilde{a}}, \beta_{\tilde{a}}, \gamma_{\tilde{a}} \in [0,1], \ a_1, a_2, a_3, a_4 \in \mathbb{R} \text{ and } a_1 \le a_2 \le a_3 \le a_4. \end{cases}$$$

$$F_{\tilde{a}}(x) = \begin{cases} \frac{(a_2 - x + \gamma_{\tilde{a}}(x - a_1))}{a_2 - a_1}, & a_1 \le x \le a_2 \\ \gamma_{\tilde{a}}, & a_2 \le x \le a_3 \\ \frac{(x - a_2 + \gamma_{\tilde{a}}(a_3 - x))}{a_3 - a_2}, & a_3 \le x \le a_4 \end{cases}$$
(3)

Where  $\alpha_{\tilde{a}}$ ,  $\beta_{\tilde{a}}$ ,  $\gamma_{\tilde{a}} \in [0, 1]$ ,  $a_1$ ,  $a_2$ ,  $a_3$ ,  $a_4 \in \mathbb{R}$  and  $a_1 \le a_2 \le a_3 \le a_4$ .

Definition 4: given  $\tilde{a} = \langle (a_1, a_2, a_3, a_4); \alpha_{\tilde{a}}, \beta_{\tilde{a}}, \gamma_{\tilde{a}} \rangle$  and  $\tilde{b} = \langle (b_1, b_2, b_3, b_4); \alpha_{\tilde{b}}, \beta_{\tilde{b}}, \gamma_{\tilde{b}} \rangle$  two single-valued trapezoidal neutrosophic numbers and  $\lambda$  any non-null number in the real line. Then, the following operations are defined:

Addition: 
$$\tilde{a} + \tilde{b} = \langle (a_1 + b_1, a_2 + b_2, a_3 + b_3, a_4 + b_4); \alpha_{\tilde{a}} \wedge \alpha_{\tilde{b}}, \beta_{\tilde{a}} \vee \beta_{\tilde{b}}, \gamma_{\tilde{a}} \vee \gamma_{\tilde{b}} \rangle$$
  
Subtraction:  $\tilde{a} - \tilde{b} = \langle (a_1 - b_4, a_2 - b_3, a_3 - b_2, a_4 - b_1); \alpha_{\tilde{a}} \wedge \alpha_{\tilde{b}}, \beta_{\tilde{a}} \vee \beta_{\tilde{b}}, \gamma_{\tilde{a}} \vee \gamma_{\tilde{b}} \rangle$   
Inversion:  $\tilde{a}^{-1} = \langle (a_4^{-1}, a_3^{-1}, a_2^{-1}, a_1^{-1}); \alpha_{\tilde{a}}, \beta_{\tilde{a}}, \gamma_{\tilde{a}} \rangle$ , where  $a_1, a_2, a_3, a_4 \neq 0$ .

Multiplication by a scalar number:  $\lambda \tilde{a} = \begin{cases} \{\langle (\lambda a_1, \lambda a_2, \lambda a_3, \lambda a_4); \alpha_{\tilde{a}}, \beta_{\tilde{a}}, \gamma_{\tilde{a}} \rangle, & \lambda > 0 \} \\ \{\langle (\lambda a_4, \lambda a_3, \lambda a_2, \lambda a_1); \alpha_{\tilde{a}}, \beta_{\tilde{a}}, \gamma_{\tilde{a}} \rangle, & \lambda < 0 \end{cases}$ 

Definitions 3 and 4 refer to single-valued triangular neutrosophic numbers when the condition  $a_2 = a_3$ . For simplicity, we use the linguistic scale of triangular neutrosophic numbers, see Table 1 and also compare with the scale defined in. The hierarchical analytical process was proposed by Thomas Saaty in 1980 [7-14]. This technique models the problem that leads to the formation of a hierarchy representative of the associated decision-making scheme. The formulation of the decision-making problem in a hierarchical structure is the first and main stage. This stage is where the decision maker must break down the problem into its relevant components. The hierarchy is constructed so that the elements are of the same order of magnitude and can be related to some of the next level.

In a typical hierarchy, the highest level locates the problem of decision-making. The elements that affect decision-making are represented at the intermediate level, the criteria occupying the intermediate level. At the lowest level, the decision options are understood. The levels of importance or weighting of the criteria are estimated using paired comparisons between them. This comparison is carried out using a scale, as expressed in equation (6)

$$S = \left\{ \frac{1}{9}, \frac{1}{7}, \frac{1}{5}, \frac{1}{3}, 1, 3, 5, 7, 9 \right\}$$
 (5)

We can add the neutrosophic theory to the AHP technique in order to create a neutrosophic framework. Thus, we can model the indeterminacy of decision-making by applying neutrosophic AHP or NAHP for short. Equation 7 contains a generic neutrosophic pair-wise comparison matrix for NAHP.

$$\widetilde{\mathbf{A}} = \begin{bmatrix} \widetilde{\mathbf{1}} & \widetilde{\mathbf{a}}_{12} & \cdots & \widetilde{\mathbf{a}}_{1n} \\ \vdots & \ddots & \vdots \\ \widetilde{\mathbf{a}}_{n1} & \widetilde{\mathbf{a}}_{n2} & \cdots & \widetilde{\mathbf{1}} \end{bmatrix}$$
 (6)

Matrix  $\widetilde{A}$  must satisfy condition  $\widetilde{a}_{ji} = \widetilde{a}_{ij}^{-1}$ , based on the inversion operator of Definition 4.

To convert neutrosophic triangular numbers into crisp numbers, there are two indexes defined in, they are the so-called score and accuracy indexes, respectively, see Equations 8 and 9:

$$S(\tilde{a}) = \frac{1}{8} [a_1 + a_2 + a_3] (2 + \alpha_{\tilde{a}} - \beta_{\tilde{a}} - \gamma_{\tilde{a}})$$

$$A(\tilde{a}) = \frac{1}{8} [a_1 + a_2 + a_3] (2 + \alpha_{\tilde{a}} - \beta_{\tilde{a}} + \gamma_{\tilde{a}})$$
(8)

**Table 1:** Saaty's scale translated to a neutrosophic triangular scale.

Saaty's scale	Definition	Neutrosophic Triangular Scale
1	Equally influential	$\tilde{1} = \langle (1, 1, 1); 0.50, 0.50, 0.50 \rangle$
3	Slightly influential	$\tilde{3} = \langle (2,3,4); 0.30, 0.75, 0.70 \rangle$
5	Strongly influential	$\tilde{5} = \langle (4, 5, 6); 0.80, 0.15, 0.20 \rangle$
7	Very strongly influential	$\tilde{7} = \langle (6,7,8); 0.90, 0.10, 0.10 \rangle$
9	Absolutely influential	$\tilde{9} = \langle (9, 9, 9); 1.00, 1.00, 1.00 \rangle$
2, 4, 6, 8	Sporadic values between two close scales	$\tilde{2} = \langle (1, 2, 3); 0.40, 0.65, 0.60 \rangle$
		$\tilde{4} = \langle (3,4,5); 0.60, 0.35, 0.40 \rangle$
		$\tilde{6} = \langle (5, 6, 7); 0.70, 0.25, 0.30 \rangle$
		$\tilde{8} = \langle (7, 8, 9); 0.85, 0.10, 0.15 \rangle$

**Step 1** Select a group of experts.

**Step 2** Structure the neutrosophic pair-wise comparison matrix of factors, sub-factors, and strategies, through the linguistic terms shown in Table 1.

The neutrosophic scale is attained according to expert opinions. The neutrosophic pair-wise comparison matrix of factors, sub-factors, and strategies is described in Equation 6.

**Step 3** Check the consistency of experts' judgments.

If the pair-wise comparison matrix has a transitive relation, i.e.,  $a_{ik} = a_{ij}a_{jk}$  for all i,j, and k, then the comparison matrix is consistent, focusing only on the lower, median, and upper values of the triangular neutrosophic number of the comparison matrix.

**Step 4** Calculate the weight of the factors from the neutrosophic pair-wise comparison matrix, by transforming it to a deterministic matrix using Equations 9 and 10. To get the score and the accuracy degree of  $\tilde{a}_{ji}$  the following equations are used:

$$S(\tilde{\mathbf{a}}_{ji}) = \frac{1}{S(\tilde{\mathbf{a}}_{ij})} \tag{9}$$

$$A(\tilde{a}_{ji}) = \frac{1}{A(\tilde{a}_{ij})}$$

$$\tag{10}$$

With compensation by the accuracy degree of each triangular neutrosophic number in the neutrosophic pairwise comparison matrix, we derive the following deterministic matrix:

$$A = \begin{bmatrix} 1 & a_{12} & \cdots & a_{1n} \\ \vdots & \ddots & \vdots \\ a_{n1} & a_{n2} & \cdots & 1 \end{bmatrix}$$

$$(11)$$

Determine the ranking of priorities, namely the Eigen Vector X, from the previous matrix:

- 1. Normalize the column entries by dividing each entry by the sum of the column.
- 2. Take the total of the row averages.

Note that Step 3 refers to considering the use of the calculus of the Consistency Index (CI) when applying this technique, which is a function depending on  $\lambda_{max}$ , the maximum eigenvalue of the matrix. Saaty establishes that the consistency of the evaluations can be determined by the equation:

$$CI = \frac{\lambda_{\text{max}} - n}{n - 1} , \qquad (12)$$

where n is the order of the matrix. In addition, the *Consistency Ratio* (CR) is defined by equation:

$$CR = \frac{CI}{RI} \tag{13}$$

RI is given in Table 2.

Table 2: RI associated with every order.

Order (n)	1	2	3	4	5	6	7	8	9	10
RI	0	0	0.52	0.89	1.11	1.25	1.35	1.40	1.45	1.49

If  $CR \le 0.1$  we can consider that the experts' evaluation is sufficiently consistent and hence we can proceed to use NAHP. We apply this procedure to matrix "A" in Equation 12.

#### 3 Results

The experts classified six factors that can negatively influence diplomacy and conflict resolution, to analyze the challenges that may arise in this area.

- 1. Economic interests (F1)
- 2. Distrust (F2)
- 3. Excessive nationalism (F3)
- 4. Internal policy (F4)
- 5. Pressure from external actors (F5)
- 6. Shortage of diplomatic resources (F6)

With the Neutrosophic AHP method, the weights of the factors that can act as obstacles to diplomacy and conflict resolution on which they will rely to apply focused procedures to measure ambiguity in public opinions about the effectiveness of diplomacy in conflict resolution and expectations.

Table 3: Neutrosophic AHP paired matrix.

Fac- tors	F1	F2	F3	F4	F5	F6
F1	1	〈(1,1,1);0.50,0.50,0.50〉	〈(1,1,1);0.50,0.50,0.50〉	⟨(6,7,8);0.90,0.10,0.10⟩	〈(4,5,6);0.80,0.15,0.20〉	〈(2,3,4);0.30,0.75,0.70〉
F2	〈(1,1,1);0.50,0.50,0.50〉	1	<(1,1,1);0.50,0.50,0.50>	〈(4,5,6);0.80,0.15,0.20〉	〈(4,5,6);0.80,0.15,0.20〉	〈(2,3,4);0.30,0.75,0.70〉
F3	〈(1,1,1);0.50,0.50,0.50〉	〈(1,1,1);0.50,0.50,0.50〉	1	<(6,7,8);0.90,0.10,0.10>	<(4,5,6);0.80,0.15,0.20>	<(2,3,4);0.30,0.75,0.70>
F4	〈(4,5,6);0.80,0.15,0.20〉	〈(4,5,6);0.80,0.15,0.20〉	<(6,7,8);0.90,0.10,0.10>	1	<(1,1,1);0.50,0.50,0.50>	〈(1,2,3);0.40,0.65,0.60〉
F5	〈(4,5,6);0.80,0.15,0.20〉	〈(4,5,6);0.80,0.15,0.20〉	〈(4,5,6);0.80,0.15,0.20〉	<(1,1,1);0.50,0.50,0.50>	1	〈(2,3,4);0.30,0.75,0.70〉
F6	〈(2,3,4);0.30,0.75,0.70〉	〈(2,3,4);0.30,0.75,0.70〉	〈(2,3,4);0.30,0.75,0.70〉	<(1,2,3);0.40,0.65,0.60>	〈(2,3,4);0.30,0.75,0.70〉	1
Sum	1.00	1.00	1.00	1.00	1.00	1.00

Table 4: Determination of weights of the criteria applying the Neutrosophic AHP method

Factors	F1	F2	F3	F4	F5	F6	Weight
<b>F</b> 1	0.06	0.08	0.06	0.05	0.07	0.03	0.06
<b>F2</b>	0.06	0.08	0.06	0.07	0.07	0.24	0.10
<b>F3</b>	0.06	0.08	0.06	0.05	0.07	0.03	0.06
<b>F4</b>	0.31	0.38	0.39	0.37	0.34	0.39	0.36
<b>F5</b>	0.31	0.38	0.28	0.37	0.34	0.24	0.32
<b>F6</b>	0.19	0.03	0.17	0.07	0.11	0.08	0.11

**Table 5:** Analysis of the consistency of the paired matrix.

Factors		Approximate eigenvalues				
F1	0.36	6.35247098	TO: 1			
<b>F2</b>	0.67	7.008398082	Eigenvalue			
<b>F3</b>	0.36	6.35247098	6.4668596			
<b>F4</b>	2.38	6.538487714				
<b>F</b> 5	2.05	6.426219636	CI - 0.09 RC-0.07 <= 0.10			
<b>F6</b>	0.66	6.123110376	KC-0.07 <= 0.10			

From the consistency analysis, it is found that the modeling meets the parameters, obtaining that its eigenvalue is 6.40, CI=0.09, and RC=0.07.

After analyzing the factors, it was determined that internal politics has greater weight in determining the country's ability to carry out effective diplomacy. For this, the experts proposed possible solutions. These solutions can contribute to a more effective approach to diplomacy and conflict resolution in Ecuador, promoting peace, stability, and cooperation both nationally and internationally. The application of these measures must be adapted to the specific circumstances of each situation and consider individual challenges and opportunities.

- Strengthening preventive diplomacy: Promote preventive diplomacy as a proactive approach to identifying and addressing potential conflicts before they escalate. This could involve early mediation, dialogue, and collaboration between neighboring nations and international actors.
- 2. Diplomatic capacity development: Invest in the education and training of Ecuadorian diplomats, including negotiation and mediation skills. Strengthening the diplomatic corps can improve the country's ability to represent itself effectively on the international stage.
- 3. Promote regional cooperation: Strengthen cooperation with neighboring countries and regional organizations. Regional cooperation can play a key role in conflict prevention and dispute resolution.
- 4. Promoting conflict resolution education: Promote education and public awareness of conflict resolution and diplomacy as peaceful means to address challenges. This may include educational programs, seminars, and awareness campaigns.
- 5. Transparency and accountability: Promote transparency in diplomatic negotiations and accountability in the implementation of agreements. This will help build trust in international relations.
- 6. Civil society participation: Include civil society in the process of conflict resolution and diplomacy. The participation of non-state actors can enrich perspectives and solutions.
- 7. Monitoring and early warning: Establish monitoring and early warning systems to detect possible tensions and conflicts in the region and take timely preventive measures.
- 8. International mediation: Promote international mediation in cases of complex conflicts. Impartial third-party mediation can help facilitate communication and dispute resolution.

## Conclusion

International diplomacy has been a determining factor in the resolution of conflicts in Ecuador, both nationally and internationally. The country's history shows that, through agreements, mediations, and treaties, it is possible to avoid destructive conflicts and promote cooperation. However, current and future challenges will require continued focus on diplomacy and international collaboration to maintain peace and stability in Ecuador and the region.

International diplomacy and conflict resolution in Ecuador are crucial areas that require innovative approaches and analytical tools such as the neutrosophic AHP to address the complexity of international relations and the country's internal challenges. The application of this methodology can contribute to a better understanding and management of conflicts in Ecuador, promoting peace and stability in the region.

Despite past achievements, Ecuador still faces challenges in its diplomacy, especially in the context of relations with neighboring countries and international crisis management. Diplomacy and international cooperation are crucial to maintaining peace and stability in the country and the region. The history of diplomacy in Ecuador serves as a reminder of the continued importance of this tool in an interconnected world.

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Received: October 28, 2023. Accepted: December 17, 2023