

## PRESS RELEASE

*Wednesday 19<sup>th</sup> of June the Peer-Reviewed, Open Access Journal Plos ONE - one of the leading scientific journal - published the article about the Impossible geography of uncontacted people in Ecuador Amazon. Details below.*

### **Uncontacted Waorani in the Yasuní Biosphere Reserve: geographical validation of the *Zona Intangible Tagaeri Taromenane (ZITT)***

**Salvatore Eugenio Pappalardo<sup>1\*</sup>, Massimo De Marchi<sup>2</sup>, Francesco Ferrarese<sup>3</sup>**

**1** Post doctorate fellow, Department of Agronomy, Food, Natural Resources, Animals and the Environment, University of Padova.

**2** Department of Civil, Environmental Architectural Engineering, University of Padova; Prometeo Project, Universidad Nacional de Chimborazo, Ecuador.

**3** GIS Laboratory, Department of Historical, Geographical and Antiquity Sciences, University of Padova.

E-mail: [eugenio.pappalardo@geoyasuni.org](mailto:eugenio.pappalardo@geoyasuni.org)

[www.geoyasuni.org](http://www.geoyasuni.org)

## SHORT RELEASE

### **Tagaeri Taromenane: last uncontacted groups of Ecuador Amazon**

The Tagaeri Taromenane People are two indigenous groups belonging to the Waorani first nation living in “voluntary isolation” within the Napo region of the western Amazon rainforest. The Tagaeri Taromenane are settled in the Ecuadorean Amazon Region between the Yasuní and Curaray rivers and within the ancestral territory of the Waorani (or Huaorani) indigenous first nation.

### **Yasuní Biodiversity Reserve**

This region is one of the last high-biodiversity wilderness areas in the world declared by UNESCO Yasuní Biosphere Reserve in 1989. At the same time is one of the 14 mayor tropical deforestation fronts at global level.

### **The reasons for a Intangible Zone**

Due to several hydrocarbon reserve exploitation projects running in the area and the advancing of a large-scale deforestation front, the survival of these groups is presently at risk.

To protect their territory the Ecuadorean State has declared and geographically defined, by Decrees, the *Zona Intangible Tagaeri Taromenane (ZITT)* in 1999 and in 2007 defined the boundaries by Decree.

### **Objectives and methods**

The general aim is to validate the ZITT boundary using the geographical references included in the Decree 2187 (2007) by analyzing the geomorphological characteristics of the area.

Remote sensing data such as Digital Elevation Models (DEM), Landsat imagery, topographic cartography of IGM-Ecuador, and fieldwork geographical data have been integrated and processed by Geographical Information System (GIS).

## **Principal findings**

We demonstrate that the perimeter of the Intangible Zone is a “geographical non-sense” because it does not fit the catchment’s divides.

The ZITT presents two levels of geographic inconsistencies. The first one is about the serious cartographical weaknesses in the perimeter delimitation related to the impossibility of linking points 6 to 7 by two rivers belonging to different basins. The second one, localized between points 7 and 8, deals with the perimeter line not respecting the hydrographic network.

Furthermore, GIS analysis of anthropological data shows presence of Tagaeri Taromenane clans outside the ZITT perimeter, within oil production areas and in nearby farmer settlements, reflecting the limits of protection policies for non-contacted indigenous territory.

## **Conclusions/Significance**

The delimitation of the ZITT followed a traditional pattern of geometric boundary not taking into account the nomadic characteristic of Tagaeri Taromenane.

To recognize indigenous territory in the Amazon basin it is necessary to implement geographical approaches in order to deal with the complex dynamics of territories and territorialities enacted by different actors.

This paper represent a contribution to raise question and to develop geographical criteria suitable for managing indigenous territories in Amazon context.

## **The concept of “voluntary isolation”**

*“isolation was not a voluntary option but a survival strategy”*

From “The protection guidelines for indigenous peoples in isolation” issued in May 2012 by the Office of the High Commissioner for Human Rights (OHCHR, 2012)

*A new 70 pages book in Spanish with more details about the geographical faults and the conflicting cartographic representations will be released Wednesday 3<sup>rd</sup> of July 2013 at 10 p.m of Quito time in the web site [www.geoyasuni.org](http://www.geoyasuni.org) with the following title:*

## **Zona intangible tagaeri taromenane (ZITT):**

### **¿una, ninguna, cien mil?**

#### **Delimitación cartográfica, análisis geográfico y pueblos indígenas aislados en el camaleónico sistema territorial del Yasuní.**

**Massimo De Marchi<sup>1\*</sup>, Salvatore Eugenio Pappalardo<sup>2</sup>, Francesco Ferrarese<sup>3</sup>**

**1** Department of Civil, Environmental Architectural Engineering, University of Padova; Prometeo Project, Universidad Nacional de Chimborazo, Ecuador

**2** Post doctorate fellow, Department of Agronomy, Food, Natural Resources, Animals and the Environment, University of Padova

**3** GIS Laboratory, Department of Historical, Geographical and Antiquity Sciences, University of Padova

E-mail: [maximo.demarchi@geoyasuni.org](mailto:maximo.demarchi@geoyasuni.org)

*The physical copy of the book published by the editors CICAME-FAL and CLEUP will be available in the bookstores in Ecuador in the middle of July 2013.*

# RELEASE

## **Uncontacted Waorani in the Yasuní Biosphere Reserve: geographical validation of the *Zona Intangible Tagaeri Taromenane (ZITT)***

**Salvatore Eugenio Pappalardo<sup>1\*</sup>, Massimo De Marchi<sup>2</sup>, Francesco Ferrarese<sup>3</sup>**

**1** Post doctorate fellow, Department of Agronomy, Food, Natural Resources, Animals and the Environment, University of Padova.

**2** Department of Civil, Environmental Architectural Engineering, University of Padova; Prometeo Project, Universidad Nacional de Chimborazo, Ecuador.

**3** GIS Laboratory, Department of Historical, Geographical and Antiquity Sciences, University of Padova.

E-mail: [eugenio.pappalardo@geoyasuni.org](mailto:eugenio.pappalardo@geoyasuni.org)

### **Tagaeri Taromenane: last uncontacted groups of Ecuador Amazon**

The Tagaeri Taromenane People are two indigenous groups belonging to the Waorani first nation living in “voluntary isolation” within the Napo region of the western Amazon rainforest. The Tagaeri Taromenane are settled in the Ecuadorean Amazon Region between the Yasuní and Curaray rivers and within the ancestral territory of the Waorani (or Huaorani) indigenous first nation.

### **Yasuní Biodiversity Reserve**

This region is one of the last high-biodiversity wilderness areas in the world declared UNESCO Yasuní Biosphere Reserve in 1989. At the same time, one of the 14 mayor tropical deforestation fronts at global level.

Due to huge non-renewable energy reserves and to the crucial role they play in the national economy, the Ecuadorean State zoned specific geographical areas in the Amazon Region for hydrocarbon industrial activities, so that, according to the 9th licensing round established in 2001, roughly the 79% of the Yasuní Biosphere Reserve was overlapped by concessions for oil extraction and production.

Oil development in the Ecuadorian Amazon has already directly and indirectly caused major social and environmental change to the Amazon people and ecosystems. Colonization of Moist Tropical Forest is causing increased deforestation as well as logging and hunting from human settlements. Rapid expansion of Via Auca road system to the west underlies direct anthropogenic pressure to Tagaeri Taromenane mobility space.

### **The reasons for a Intangible Zone**

This set of socio-environmental processes taking place in the Ecuadorian Amazon (especially in the Auca territory system) is also affecting the social reproduction and the same survival of the Tagaeri Taromenane, clans of uncontacted hunters, and collectors living by semi-nomadic lifestyle in a wide territory of the Yasuní Biosphere Reserve’s western and southern sector.

Additionally, in the last decades, several violent contacts between uncontacted indigenous people and external stakeholders induced the Inter-American Commission on Human Rights (IACHR, 2006) to grant precautionary measures in favor of the Tagaeri Taromenane demanding that “the Ecuadorian State adopt measures necessary to protect the territory inhabited by beneficiaries from third parties”.

The institutional history of the Intangible Zones began in the 1999 by the Decree 552, declaring the Zona Intangible to protect the territory of the uncontacted Tagaeri Taromenane indigenous groups.

The delimitation of the ZITT has been a long and controversial process complicated by the fact that this area is “geographically embedded” within the industrial concession areas for oil exploitation. On the north and west sides, there are oil companies operating in industrial production for the past three decades while on the south side there are the exploratory blocks which represent, by the 11th licensing round opened in November 2012, a spatial shift to the Southern Amazonian sector of the extractive frontier.

Finally, a geographic delimitation of the ZITT was issued on the 16th of January 2007 through the Decree 2187. To mitigate external anthropic influences, a buffer zone of 10 km has been defined around its perimeter. Within this additional protected area, wood extraction activities and new oil concessions are forbidden, while traditional activities such as hunting, fishing, and traditional use of biodiversity is allowed to the ancestral indigenous communities (the Waorani first nation).

### **Objectives and methods**

The general aim is to validate the ZITT boundary using the geographical references included in the Decree 2187 (2007) by analyzing the geomorphological characteristics of the area.

Remote sensing data such as Digital Elevation Models (DEM), Landsat imagery, topographic cartography of IGM-Ecuador, and fieldwork geographical data have been integrated and processed by Geographical Information System (GIS).

### **Principal findings**

We demonstrate that the perimeter of the Intangible Zone is a “geographical non-sense” because it does not fit the catchment’s divides.

The ZITT presents two levels of geographic inconsistencies. The first dimension is about the serious cartographical weaknesses in the perimeter delimitation related to the impossibility of linking two rivers belonging to different basins while the second deals with the perimeter line not respecting the hydrographic network.

Furthermore, GIS analysis of anthropological data shows presence of Tagaeri Taromenane clans outside the ZITT perimeter, within oil production areas and in nearby farmer settlements, reflecting the limits of protection policies for non-contacted indigenous territory.

For the first time in scientific literature the paper presents two maps as attempt to highlight the complex dynamics of territories and territorialities in relation to actors and conflicts.

One is the synthesis map assembling nine thematic variables showing the multiple overlapping territories setting up in the Yasuní Biosphere Reserve space: the hydrocarbon dimension (concession, oil fields and wells for extraction and re-injection), protected areas, the Waorani indigenous, the Zona Intangible for the Tagaeri Taromenane, road network, rivers, communities, the combination of historic incidents.

The second is a new map using a representation closer to human right policies and the spatial patterns of Tagaeri Taromenane: elimination of limits, representation of the buffer zone (normally not communicated), territorial continuity between the nuclei of the four groups and the official ZITT.

### **Conclusions/Significance**

During the revision of this article, in the night between the 4th and 5th of March 2013, the old Waorani man Ompore and his wife Buganey were speared to death in proximity of Iro oil field, in Block 16, which is operated by Repsol-YPF. Meanwhile, a group of Waorani from the Yarentaro community organized an expedition to avenge their dead relatives, entered the ZITT, and killed approximately dozens of Tagaeri Taromenane as well as abducted two uncontacted youths. This fact, confirmed by an official twitter account of Ministerio de Justicia on the 3rd of April 2013, is also under investigation.

These two dramatic events should be deeply analyzed in order to understand the complex relationship among uncontacted Waorani groups and the wide group of Waorani, the discontinued

presence of the State, the role of Waorani organizations, and the deterministic approach of some NGO advisors.

The incident of 5th of March also demonstrates the long and complex process to enact human right policies in a controversial and complex territory. Moreover, the attack has major significance in terms of its location since it occurred near the geographic inconsistencies highlighted by this paper: about 100 meters from the Wipsi-1 oil platform, 10 km from point 7, almost 20 km from point 7, along the border of the Buffer Zone.

The delimitation of the ZITT followed a traditional pattern of geometric boundary not taking into account the nomadic characteristic of Tagaeri Taromenane.

To recognize indigenous territory in the Amazon basin it is necessary to implement geographical approaches in order to deal with the complex dynamics of territories and territorialities enacted by different actors.

This paper represent a contribution to raise question and to develop geographical criteria suitable for managing indigenous territories in Amazon context.

### **The concept of “voluntary isolation”**

*“isolation was not a voluntary option but a survival strategy”*

From “The protection guidelines for indigenous peoples in isolation” issued in May 2012 by the Office of the High Commissioner for Human Rights (OHCHR, 2012)

*A new 70 pages book in Spanish with more details about the geographical faults and the conflicting cartographic representations will be released Wednesday 3<sup>rd</sup> of July 2013 at 10 p.m of Quito time in the web site [www.geoyasuni.org](http://www.geoyasuni.org) with the following title:*

## **Zona intangible tagaeri taromenane (ZITT):**

### **¿una, ninguna, cien mil?**

#### **Delimitación cartográfica, análisis geográfico y pueblos indígenas aislados en el camaleónico sistema territorial del Yasuní.**

**Massimo De Marchi<sup>1\*</sup>, Salvatore Eugenio Pappalardo<sup>2</sup>, Francesco Ferrarese<sup>3</sup>**

**1** Department of Civil, Environmental Architectural Engineering, University of Padova; Prometeo Project, Universidad Nacional de Chimborazo, Ecuador

**2** Post doctorate fellow, Department of Agronomy, Food, Natural Resources, Animals and the Environment, University of Padova

**3** GIS Laboratory, Department of Historical, Geographical and Antiquity Sciences, University of Padova

E-mail: [maximo.demarchi@geoyasuni.org](mailto:maximo.demarchi@geoyasuni.org)

*The physical copy of the book published by the editors CICAME-FAL and CLEUP will be available in the bookstores in Ecuador in the middle of July 2013.*