





**Figure 1. Map of Colombia highlighting the Matavén Forest**

## 1 Location

The Matavén Forest is the furthest north eastern section of the Colombian Amazon. It lies in the Orinoco watershed and is bounded east by the Orinoco River, north by the Vichada River, south by the Guaviare River and west just short of the Chupave River. It is mainly in the Vichada Department, and belongs to the Cumaribo municipality with only 3 communities situated in the Guainía Department.

The Matavén Forest is 1,849,613ha (de la Hoz & Cock, 2005), of which a protective peripheral strip is used by 17 sectors of indigenous communities. These sectors, originally formed 16 indigenous territories, *resguardos*, but in 2004 were legally consolidated to 1 large *resguardo*. The inner forest is called “Corazon de la Salud” (Heart of Health) and is well conserved and largely uninhabited (Etnollano, 2000). The indigenous people believe that as long as they take care of the forest and the resources within it, their communities will continue to thrive for generations.



## **2 Population**

The *resguardos* total 12,052 inhabitants (Fundación GAIA Amazonas, 2006) from 6 different ethno-linguistic groups: Sikuani, Piapoco, Piaroa, Puinave, Curripaco and Cubeo (Etnollano, 2000). These indigenous people have generations of knowledge and experience on the natural resources, the seasonal cycles, and on how to live sustainably off the environment (Etnollano, 2000). They support the conservation of the ecosystems and as a result the environment is intact (Etnollano, 2000).

## **3 Governance**

The governing body of the Matavén Forest is called ACATISEMA, translated it means the Association of Leaders and Traditional Indigenous Authorities of the Matavén Forest. The main objective of ACATISEMA is to assist with integral development and cultural and social preservation of the indigenous communities situated in the Matavén Forest, such as the consolidation of the territory, the proper governance of the associations, defense, conservation and preservation of the environment and biodiversity of the forest (ACATISEMA & Asociación Macarena, 2004). ACATISEMA and its chairman are registered at the Ministry of Interior as a legal Traditional Indigenous Autonomous Authority (AATI) and the legal representative for the Matavén Forest, respectively (de la

Hoz & Cock, 2005). ACATISEMA is divided into several components: the General Assembly, the Board of Sector Representatives and the Coordinating Committee. The Coordinating Committee is charged with coordinating activities of 10 interest areas: ethno-education, youth, women, “Planes de Vida”, health, human rights, environment and territorial land, finance, project management, and indigenous advisory (ACATISEMA & Asociación Macarena, 2004). ACATISEMA functions as a democracy in which the majority vote of all members from community level to General Assembly level must be obtained before a decision is made. It is also important to the people of Matavén and its government that all communities are aware of issues before decisions are made. If governing bodies fail to do so they will be rebuked and have had to undo such decisions.

#### 4 Environmental Importance

Being part of the Colombian Amazon, the Matavén Forest characteristically consists of species richness and a complex mosaic of ecosystems with high endemic levels. It has five ecosystems, for instance, it contains enclaves of savannahs in the north reflecting the transition to the Orinoquia ecoregion.



**Figure 2. Varzea near southern Matavén**

A second ecosystem type contains the most extensive “flooding forest” or “Varzeas” of the Colombian Amazon (Etnollano, 2000). If the flooding forest disappears it will impoverish the rivers, streams and several aquatic resources to the point of extinction. The riparian zones also need careful management in order not to overexploit the palms that grow along banks or the fish within the water (Etnollano, 2000).

Of the five ecosystems in the Matavén Forest, the biotic makeup of three of them are relatively unknown by scientists.

According to the IUCN red lists there are several threatened species of terrestrial vertebrates which inhabit or may inhabit the Matavén Forest (Etnollano, 2000). Alterations of the ecosystems here can lead to species extinction or species becoming critically threatened.

Also relevant to the environmental importance of the region is the indigenous patrimony and culture of Matavén. Their traditional beliefs place environment at the root of their existence and survival. They believe that “the day nature is made an object of man, will

be the end of life”. The allegory of their life plan is a tree where part of the root of the tree is nature, the trunk – the ancestral laws and the branches – knowledge, religion, communication etc. (Figure 3).



Figure 3. Representation of the patrimonial belief system of the indigenous people of Matavén. Source – ACATISEMA General Assembly presentation on ethno-education May 2007.

## 5 Threats to the forest and people of Matavén

The Matavén forest extends to the west just before the Chupave Channel. While it is free of coca fields and the indigenous people are not associated with armed forces, on both sides of this channel are guerrilla and cocaleros actively cultivating coca. The indigenous people are aware of the encroaching coca front but it is not always easy for them to patrol their own territory as coca growers have chased away and threatened indigenous people from areas where the indigenous territory and the coca fields coincide.

The fisheries of the Orinoco River are also being depleted rapidly as Venezuelans, suspected to come from the cities and not the bordering villages, overfish and fish out of designated seasons. ACATISEMA has acknowledged this problem and as a means to solve the problem, have set up an annual week long festival called “Festival del Bocón”. During this week, trained members of the communities run fish surveys and public outreach activities to locals and Venezuelan villagers from along the Orinoco River. Both

sides are aware of the consequence of overfishing and respect the natural and indigenous rules but they have not found a way to confront the Venezuelans coming from further away.

Historically, outsiders have often inquired or even attempted exploitation of minerals in the Matavén forest. The indigenous people do not want unsustainable development in their heart of health and have considered converting the forest into a protected area as a means of obtaining protection against large scale commercial activities. The Colombian law presently does not, however, allow for the establishment of a special “indigenous protected area” and consequently, they have not accepted this option for protection. Once they have obtained the results of the ecological characterization of Matavén they will embark on dialog with the Colombian government over recognition of the Matavén forest with special protection status.

Matavén has a well structured system of governance but no long term funds for sustaining its execution. As the sectors of Matavén are spread out along the periphery of the central forest and there is no infrastructure for intersectoral telecommunication, it takes quite some logistics and costs to organize meetings and inform the population. In addition, their strong sense of democracy excludes the possibility of a few making the decisions.

Few of the communities of Matavén are located in flooded regions. As the population increases the shortage of land for subsistence farming also increases and presently they struggle with maintaining adequate food supplies.

## 6 Related projects in the Matavén Forest, Colombia



**Figure 4. One of the many outcrops of the Guiana Shield in the Orinoco River**

Using the work carried out in phase one of GSI on the contribution of indigenous management to conservation and sustainable use, as well as previous projects funded by the NC-IUCN and the EU, the GSI could use Matavén Forest as a pilot in which indigenous management of ecosystems providing goods and services would be assessed.

If accepted as a pilot area of GSI the proposed pilot project in Matavén, Colombia would be implemented in cooperation with and as a follow up of the Colombian Amazon programme of the Dutch Embassy in Colombia (2003-2007) and the Institute for Environmental Security (IES) Environment and Security for Poverty Alleviation (ESPA) Program (2006-2010). The Dutch Embassy programme is financing the necessary administrative and governance strengthening of the local indigenous authorities to adequately deliver the ecosystem services from the area and to receive and distribute equitably the payments or other forms of compensation as envisaged in this proposal. The co-financing by the Embassy programme amounts to Euro 450.000 over the project duration.

The purpose of ESPA is to research how the current situation impacts environmental security, to find out what the priorities are of the local people, to make recommendations for the local, regional and international groups in line with that of the Millennium Goals and multilateral environmental agreements and to make connections between the local managers of the forest and those who can support them.

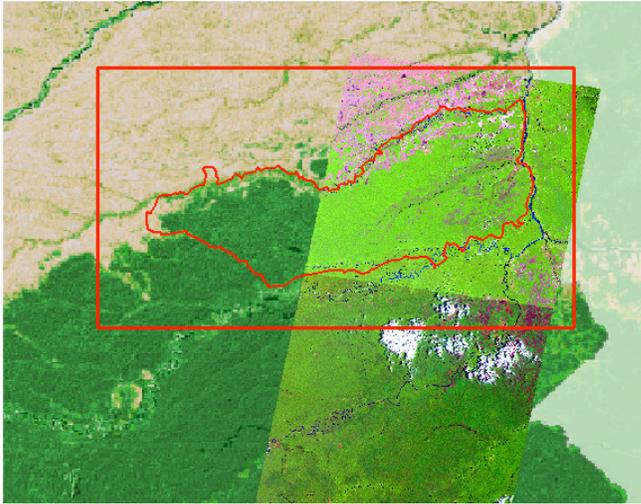
A third project, relevant to the GSI in Matavén is the Fondo para Biodiversidad y Areas Protegidas (FONBAP). According to the project proposal (Ministry of the Environment, 2004), “the project will establish a new model for managing and financing the system of protected areas in Colombia adopting a conservation mosaic approach, which includes the direct participation of local government, and direct financing of protected areas. Conservation mosaics (CM) are defined as networks of protected areas (PAs) and complementary surrounding landscapes. Working with CMs instead of strict conservation PAs emphasizes the need to complement National Parks with other management categories and conservation strategies, while promoting the sustainable use of biodiversity and seeking local development through use agreements and benefit sharing

with local communities. The CM approach is also consistent with the implementation of the Policy of Social Participation in Conservation adopted by the National Parks Unit in 1999. The policy seeks to develop short, medium and long-term strategies generating sustainable economic and social alternatives and improving the quality of life of inhabitants in National Park buffer zones. This strategy has increased communities' commitment to protecting PAs and helped curb illicit crop cultivation, inappropriate land use, poverty and the lack of sustainable economic alternatives." If Matavén is selected as a pilot under the GSI project it will receive payments for ecosystem services but only in the short term of the duration of the project. From the description, FONBAP could serve as a source of long term funding for Matavén. Matavén would of course have to apply for this funding.

## **7 Ecological Characterization of Matavén**

ACATISEMA was able to obtain support to run an ecological characterization of a portion of their territory. About 61% of the finances was reassigned from the Dutch Embassy Programa Amazonico for Matavén while the remaining funds were contributed by the IES ESPA program, Humboldt Institute, GTZ and Ministry of the Environment, Colombia. The assessment was carried out for approximately 45km along the Orinoco, Matavén, Cajaro and Fruta Rivers. This region is also part of the area where there is interest by the Colombian Government to explore for oil. The research team executed the project together with a number of interested indigenous inhabitants of the area in order for them to learn and be able to carry out similar assessments in the future. By the end of June, 2007 there should be preliminary results from the Humboldt Institute, Bogotá, executing agent of this characterization project. Such an assessment is vital for the future of Matavén, as it will reveal the ecological value of the ecosystems. Results will serve as baseline information to help the local indigenous people manage their territory sustainably and not be forced to utilize their land for potentially destructive ventures such as the exploration and extraction of oil and other minerals, logging or cattle ranching. The acquisition of this baseline information is timely and can be used for establishing contracts for compensation of ecosystem services necessary for ecosystem protection and as a means of livelihood. Just a small area of the forest is being assessed, however, and an extension of this may be necessary as part of the GSI. The start up cost of receiving compensation for natural resources is often too high for local communities. The locals struggled to find the funding for the first part of the characterization project and would need assistance to complete the assessment for the entire territory.

## 8 Permanent Remote Sensing Monitoring System



**Figure 5. Multilayered graphic: Matavén study site outlined in red, forest areas in green, and savannahs in beige<sup>1</sup>.**

Great efforts toward establishing a permanent remote sensing monitoring system in the Amazon of Colombia, including the area of Matavén have been made. The project is called Permanent Ecosystem and Land cover Monitoring System (PELMS), and its primary objective is to monitor by remote sensing the Colombian Amazon and the Chocó region along the Pacific coast. The proposal was developed by a local consortium of

Sistema de Información Nacional Ambiental (SINA) members from government, non government, academic and research institutions and SarVision/Wageningen

University which specializes in radar remote sensing. The project is a follow up to the Sistema de Información Ambiental Colombiano (SIAC) and recommendation from the IES pilot project (Hyde-Hecker & Veening, 2005). The need for the monitoring system has been explicitly stated by various parties including associations of indigenous people in the targeted region. The project is still at the proposal phase as no funding has been secured as yet.

It is envisioned that remote sensing can be used to evaluate the natural resources and monitor indigenous territories for early signs of forest exploitation. Thus, the monitoring would serve as an alternative to regular visits to certain areas. For instance, monitoring would enable indigenous people to be aware of the activities in the encroaching coca front as it is not safe for them to patrol that area. Also some parts of the Matavén Forest are considered sacred by some groups and so those areas are unexplored. PELMS can also satisfy the monitoring needs of the contracts established for compensation of ecosystem services. The ability to show the condition of resources to donors is crucial for any contract.

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<sup>1</sup> Source of data can be found online at the IES webGIS interface for Matavén Colombia <http://www.envirosecurity.org/espa/vision.php>

## 9 References

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