The Ecuadorian government is accusing Harvard Medical School, the Corriell Institute for Medical Research, and oil company Maxus Energy Corporation of stealing DNA from an indigenous people in the Ecuadorian Amazon.

According to Waorani testimonies, in 1991 a medical brigade made up of 2 doctors, one from the oil company Maxus, allegedly drew blood without consent, claiming it was part of checking on the health of the women and promising medication. However, the Waorani say they never saw any results from these so-called medical check-ups. This occurred despite the illegality of extracting blood from indigenous people in Ecuador, as this had already happened when contact was made with the Waorani by the Summer Institute of Linguistics (SIL), who had initiated a vaccine campaign.

Manuela Ima, president of the Waorani women's organization AMWAE, stated to the Ecuadorian newspaper *El Comercio* that it was during vaccination campaigns that blood was also drawn from everyone, including children, women, and youth, but that the results were never known.

The blood samples were sent to Corriell Institute, which confirms that a Harvard Medical School representative distributed the blood sample to the institute, after which, according to the institute to this date, the sample strain has been distributed to researchers in eight different countries to “be used to understand the range of variation of human DNA in different populations.” Its website proudly states that it has “the world’s most diverse collection of cell lines, DNA, and other biological resources” and contributed to the Human Genome Project.

The Institute states it has not received any economic benefits from the DNA and further defends its actions by stating it is a non-profit and that it will not respond to the question of whether the samples were taken with or without consent. However, it is unknown who exactly took the samples and how they were brought out of Ecuador, which prohibits the export of blood by law.

It wasn't until this year that the situation gained importance due to a formal complaint filed by researcher Pablo Morales from IPADEG, an Ecuadorian scientific institute, and circulated by Neida Andi Arimuya Director of IPADEG, and Cawitepi Yety, President of NAWE, the Waorani people's organization, with the Ecuadorian public ombudsman agency, Defensoría del pueblo, that the Ecuadorian government opened an investigation. As a result, the government argues the Waorani people's rights to a cultural identity have been violated, as well as their personal integrity. Article 21 of the Ecuadorian constitution protects the right to preserve a people's cultural identity, while Articles 57 and 332 refer to the protection of collective knowledge of indigenous peoples and prohibits the appropriation of genetic resources, respectively. Finally, the report states that the international right that indigenous people have to prior and informed consent has been violated. The Ecuadorian state representative of indigenous people has called for further investigations and the case has officially been named an issue of biopiracy in Ecuador. Finally, Ecuador's president Rafael Correa has declared that the country is now analyzing pressing charges in international tribunals against Corriell Institute for the illegal use of Waorani genetic material.

Missionaries, (Oil) development and the Other

Traditionally a hunter-gather people numbering about 15,000, Waorani communities have been reduced to but a few thousand due to the impact of contact, conflict, and forced displacement. Although the Waorani people have been subject to the forces of colonization, they have continued to assert their self-determination, currently through their organizations NAWE and OMWAE. Their territory is situated in the Amazon basin which contains more species of plants and animals than any other area in the world, since the region was a harbor to older species during the last ice age (Pleistoscene era), of which several are still unclassified by Western science. It is also rich in oil, which has served to attract colonial exploitation in search of profit. Today, some Waorani communities live in a traditional way, subsisting from hunting, gathering and small-scale horticulture, whereas others are dependent on industries in their territory, for example, the oil company Repsol-YPF. The Tagaeri and Taromanene communities are Waorani groups who live in voluntary isolation, resisting contact. There are also those Waorani people who move in between a more traditional lifestyle and travel globally to indigenous rights meetings to advocate for their rights. In 1993 when the oil company Maxus built a road into their territory, many Waorani families settled along it.

The history of the Waorani people is filled with instances in which they have been the objects of research and domination to serve Western minds' fascination about the "Other," and in which

the West's self-identification becomes based on its difference from the “Other,” in this case Waorani communities. This is evident in the *End of the Spear*, a feature film produced by U.S. evangelical Christians which depicts the contact and invasion of Christian missionary group, the Summer Institute of Linguistics, close partners with the the Wycliffe Bible Translators, in Waorani territory by glorifying the role of the group which initially contacted and forcefully relocated the nomadic semi-sedentary people to villages and forced Christian values on them in the 1950s. The book *Through Gates of Splendor* also tells the narrative created by the evangelical Christians, hailed by many as a heroic feat, and calling the missionaries martyrs. The SIL pushed and converted some of the Waorani community members to a sedentary lifestyle and toward an economic dependency on money. However, many argue that the “civilizing” mission of the SIL cannot be separated from oil companies’ interests in colonizing and exploiting indigenous territories in Ecuador. These missions have served as, in the case of the accused bio-piracy of Waorani DNA, to facilitate corporate contact with and entrance into Waorani territory.

According to the son of Dayuma, the first Waorani woman to live with the SIL missionaries who was adopted by the SIL missionary Rachel Saint , Saint was given a check by Texaco to support their work to round up the Waorani community. Although it was SIL's contact which produced diseases which the Waorani had no defenses too, the feature film *End of the Spear* d epicts the SIL heroically distributing vaccines to the indigenous people. It was also during vaccinations initiated by the SIL in 1979 by Jonathan E. Kaplan, James W. Larrick, and James Yost, that the first blood samples were taken from Waorani people according to the academic articles that refer to these samples.

Postcolonial scholar Edward Said wrote extensively on the link between international research and the imperialist project to subjugate colonial subjects, as well as on the role which cultural texts, including those of scholars, play in shaping a Western discourse which imagines the Other (in Said’s case, specifically the Orient) and in sustaining colonialism (1978). Tuhiwai Smith further identifies research as a point of struggle between Western knowledge and ways of knowing of the Other, and in which indigenous peoples have served as the Other (1999).

The SIL (now SIL International) were expelled from Ecuador for suspected work with the CIA in 1980 by then president Jaime Roldós Aguilera, who later died in a plane crash. However, it is clear that missionaries still have influence in the area, although through different shapes and forms. A son of one the original SIL missionaries continues missionary work through the company he founded, called I-TEC, Inc, which claims to “empower locals.” And today, these companies alongside oil companies and universities continue to inculcate “civilization” through programs set up by the Yasuni Scientific Research Station and Repsol-YPF, purportedly to teach the Waorani people skills, such as to sew their own clothing.

Biocolonialism

Researchers on the lookout for specimens indigenous to an area, such as plants, or in this case, DNA, call this activity bioprospecting, which can take various shapes and forms, such as via tourists, universities, and in the case of the Waorani communities, the oil company which opened the way for various bio-prospectors, also conveniently contracted with Missouri Botanical Garden to find plants that can be sold to pharmaceutical companies. The terms that activists for indigenous rights have created to describe the result of these activities are bio-colonialism and biopiracy: the theft of life from indigenous communities without prior information and consent. The Corriell Institute, for example, is known among activists concerned with this theft and commercialization of life, for its controversial sale of genes from Karitiana and Suruí indigenous peoples of Brazil on the internet.

Other famous cases of biopiracy took place in 2004, when the Havasupai tribe in Arizona filed a lawsuit against Arizona State University for sampling and misuse of their genes. But the largest research project on human genes to this day is the Human Genome Project, originally called the Human Genome Diversity project, which was so fraught with problems it failed to get funding from public institutions. Eventually it passed to private ownership of the National Geographic project, IBM and the Waitt Family Foundation in order to collect 100,000 DNA samples from global indigenous peoples in order to, in their words, “help people better understand their ancient history.” Critics, such as the IPCB, the Indigenous Peoples Council on Biocolonialism, an indigenous organization founded in 1993 to oppose the Human Genome Diversity Project and to address issues of biopiracy, call it a “vampire” project.

Le'a Kanehe, a legal analyst for IPCB and Native Hawaiian, states "It's interesting how in the past, racist scientists, such as those in the eugenics movement, did studies asserting that we are biologically inferior to them; and now, they are saying their research will show that we're all related to each other and share common origins. Both ventures are based on racist science and produce invalid, yet damaging conclusions about indigenous cultures."

Hope to raise awareness and action

Back in Ecuador, Pablo Morales, the researcher whose studies of this case since 2007 have led him to enter the field called biomedical anthropology, is hoping to raise consciousness of cultural heritage and human rights associated with it. He hopes there is enough interest across Latin America and globally to lead to the start of a campaign to stop the theft of genetic materials. He mentions that in Bolivia representatives from the National Geographic Human genome project, headed by geneticist Spencer Wells, have already entered the country and visited and held meetings with authorities from the Isla del Sol. About the Ecuadorian case, Pablo says: “Corriell Institute falsifies the truth. They say that their research is for 'noble' and 'scientific' causes and for the good of humanity, and we have heard this rhetoric before. We have to stop this biopiracy of life.” He further calls for the necessity of educating Ecuadorians on issues of genomic and cultural heritage and creating laws to protect human genetic material, something that would also be necessary in the context of Bolivia.

Sources:

Corriell Institute: (catalogue) and www.coriell.org

Indigenous People’s Counsel on Biocolonialism

Corriell justifica distribución de ADN Huaorani

Rechaza Ecuador eventuales represalias comerciales de EUA por Assange . Yahoo Noticias

Resolución Defensoría del Pueblo

Hyperimmunoglobulinemia E in the absence of atopy and filarial infection: the Huaorani of

Ecuador . Kron MA, Ammunariz M, Pandey J, Guzman JR. Allergy Asthma Proc. 2000 Nov-Dec;21(6):335-41.

Hyperimmunoglobulinemia E in the Waorani, an isolated Amerindian population . Kaplan JE, Larrick JW, Yost JA.
Am J Trop Med Hyg.
1980 Sep;29(5):1012-7.