JOURNAL OF CULTURAL ANALYSIS AND SOCIAL CHANGE

Journal of Cultural Analysis and Social Change,
2026, 11(1), 2263-2275
ISSN: 2589-1316

Chakra System in the Ecuadorian Amazon: A Space of Global Transformations

Carmen Coral-Guerrero[1*], Alejandra Espinosa[2], Wilson Vásquez-Castillo[3], Dennis Patricio Lema Vargas[4]

[1] Researcher and Professor at Business and Digital School; Universidad Internacional SEK, Quito, Ecuador; Carmen.coral@uisek.edu.ec
[2] Independent Researcher, Quito, Ecuador; alejaespinosa@gmail.com
[3] Researcher at Agroindistrial Engineer at GIA2 group; Universidad de Las Américas (UDLA), Quito, Ecuador; wilson.vasquez@udla.edu.ec
[4] Researcher Assistant at Universidad Internacional SEK, Quito, Ecuador; dennislema0106@gmail.com

*Corresponding Author: Carmen.coral@uisek.edu.ec

Citation: Coral-Guerrero, C., Espinosa, A., Vásquez-Castillo, W. & Vargas, D. P. L. (2026). Chakra System in the Ecuadorian Amazon: A Space of Global Transformations, *Journal of Cultural Analysis and Social Change*, 11(1), 2263-2275. https://doi.org/10.64753/jcasc.v11i1.4297

Published: January 20, 2026

ABSTRACT

The chakra production system (Chacra or Chagra) is an agroforestry system that combines various crops, including a diversity of tree, shrub, and herbaceous species. This system has been traditionally used by the Kichwa people of Ecuador for the production of food, medicinal plants, timber, and other products. The study aims to describe the chakra system in the Kichwa communities of Napo and its main transformations within the global context. The analysis allows us to: a) identify the cultural values and transformations associated with the chakra system, and b) identify new research topics to deepen our understanding of this farming system. The analysis shows that the chakra system in Kichwa families of Napo has undergone several transformations that reflect both sociocultural changes and the economic and environmental pressures of the globalized world, such as the impacts of climate change and deforestation, rural-urban migration, global market pressures, and the implementation of monocultures for export, among others. This has led to a breakdown in the generational transmission of knowledge and practices for chakra management, a reduction in the size of the chakra, and integration into the global market through fair trade certifications and technological advancements, resulting in a process of reinterpretation of the chakra system as identity and business strategy.

Keywords: Chakra, chakra technology, Amazonia, global transformations, Kichwa Napo.

INTRODUCTION

The chakra production system has been defined as an integrated agroforestry system characteristic of the Kichwa and Shuar nationalities of Ecuador. For the Kichwa nationality, the chakra system not only represents an agricultural production strategy, but also constitutes an essential element of their worldview and social structure (Reátegui, 2011). Working in the chakra implies a direct relationship with nature and the preservation of ancestral knowledge related to crop management (Coral Guerrero, 2023).

The chakra system allows for food cultivation without compromising ecosystem function. Trees and palms play a central role in this system, providing resources such as food for families and local markets, timber, and environmental benefits such as erosion prevention and carbon sequestration (Bredero zur Lage et al., 2023).

Currently in Ecuador, there are various initiatives by local governments and international organizations to maintain and strengthen the chakra system. Among them is the Food Sovereignty Program of the Ecuadorian Ministry of Agriculture and Livestock, which seeks to incentivize agroecological production and crop diversification in rural communities (Ministry of Agriculture and Livestock, 2017). Likewise, the Amazonian

Kichwa Chakra Seal Project, promoted by the Chakra Corporation, seeks to recognize and differentiate products cultivated under this system at the national and international levels (Chakra Corporation, 2024). Organizations such as the WWF, GIZ, WFP has collaborated in the conservation of the chakra system, supporting sustainable agroforestry and promoting fair trade to improve the income of Kichwa families (Heifer International, 2024).

In this context, the present study aims to Describe the main characteristics of the chakra system in the Kichwa communities of Napo, as well as its main transformations in the global context.

METHODOLOGY

The methodology used for this analysis is primarily qualitative. The following techniques were used:

Bibliographic Analysis: books, articles, official web pages, and research related to the chakra system, the Kichwa people of Napo and the province of Napo were analyzed.

Semi-Structured Interviews: A total of 26 interviews were conducted (13 men and 13 women). Among those interviewed were indigenous people, mestizos, men, women (16 to 82 years old), technical actors, politicians, and officials from international cooperation. A large part of the actors interviewed are members of the Wiñak association. This association brings together Kichwa producers and promotes environmentally friendly practices to preserve Kichwa culture, identity, and worldview (Wiñak Association, 2023). The information provided by each interviewee is used anonymously; each interviewee is identified in the text with the abbreviation E followed by a number.

Table1: Interviews

Code	Locality / Community	Gender	Main role or activity
E1	Rukullakta	Man	Producer, in charge of farm visits
E2	Rukullakta	Man	Producer, traditional healer (Wiñak)
E3	Rukullakta	Women	Producer (Wiñak)
E4	Rukullakta	Man	Producer (Wiñak)
E5	La Serena	Man	Producer (Wiñak)
E6	La Serena	Man	Producer (Wiñak)
E7	Jatun Yaku	Women	Producer (Wiñak)
E8	Tamia Urku	Women	Rukumama (spiritual guide)
E9	Tamia Urku	Man	Community leader and producer
E10	Tamia Urku	Women	Chakra owner
E11	Tamia Urku	Women	Rukumama (spiritual guide)
E12	Tamia Urku	Man	Producer (Wiñak)
E13	Flower of the Forest	Women	Producer (Wiñak)
E14	Archidona	Man	Leader of the Wiñak Association
E15	Quito	Man	Producer and director (Wiñak)
E16	Quito	Women	Producer and director (Wiñak)
E17	Quito	Man	Producer and leader (Wiñak)
E18	Cotundo	Man	Producer
E19	Archidona	Women	Chakra producer and member of Kallari
E20	Archidona	Man	Agricultural technician linked to Kallari
E21	Tena	Women	Producer of cocoa and guayusa
E22	Tena	Women	Chakra producer and participant in cultural strengthening programs
E23	Arosemena Tola	Women	Community technician in support of producers
E24	Arosemena Tola	Women	Local producer and marketer
E25	Tena	Man	Technician in the area of sustainable development
E26	Tena	Women	Producer and member of kallari

Source: Prepared by the author based on field interviews.

Field Observation: Visits were made to the province of Napo in the years 2015, 2016, 2017, 2022, 2023, 2024, and 2025. These visits aimed to conduct on-site interviews and also to observe specific crops in the fields (specifically guayusa and cacao). Direct observation allowed for the supplementation of testimonies with visual evidence and descriptions of daily practices.

The study was conducted in accordance with the ethical principles established by the Ethics Committee for Research with Human Subjects (CEISH) of the University of the Americas, and also guided by the Declaration of Helsinki and the code of ethics of the International Society of Ethnobiology. The latter emphasizes Principle 1, which recognizes that Indigenous peoples have interests, responsibilities, and property rights over all traditional knowledge, resources, and their uses.

The Province of Napo and the Kichwa People

The Ecuadorian Amazon basin covers an area of 13.2 million hectares, corresponding to 51.3% of the country's continental surface (EcoCiencia, 2022). The six provinces that are part of the Amazon region have a total population of 928,251 inhabitants (SGDB N, 2023), of said population, 40.5% self-identify as indigenous (SGDPN, 2023).

Currently, there are two subgroups of Amazonian Kichwas: the Napo Kichwas, from Alto Napo, and the Canelos Kichwas, located in the province of Pastaza (Andy et al., 2012b). The present study refers to the Kichwas of Napo.

Map 1: Location of the Amazon in Ecuador
Obtained from: (International Touristic Platform,2024).

The province of Napo is located in the Amazon region of Ecuador. This province has 131,675 inhabitants (INEC, 2023a), of which 63% reside in rural areas (Napo Prefecture, 2020). In this province, self-identification as Indigenous reaches 65% (85,528 inhabitants), representing the highest percentage of the six Amazonian provinces (SGDPN, 2023). Of that percentage, 90% correspond to the Kichwa nationality (Napo Prefecture, 2020). 81.6% of the province's total population lives in multidimensional poverty (INEC, 2023b).

The Kichwa populations originated through processes of ethnic fusion between Sapara, Western Tukano, and Quijos tribal societies (Andy et al., 2012a). The Kichwa of Napo are known as Napu or Napo Runas; their presence in the province dates to the second half of the 19th century (Muratorio, 1998), and they are currently located mainly in the southern part of the province, in the cantons of Archidona, Tena, Arosemena, and Tola, as well as in urban areas.

The Kichwa worldview and ancestral culture of Napo has been described and documented by various authors (Andy et al., 2012a, 2012b; Muratorio, 1998, 1989; Oakdale, 2013; Uzendoski, 2013, 2010, to name just a few). Among the ancestral socio-cultural characteristics of this group, the figure of the "shaman" as a symbolic axis of ethnic and religious identity (Muratorio, 1989), the importance of kinship networks and myths (Uzendoski, 2006), the connection with nature and the environment, their form of social organization based on the ayllu (family group) and the muntun (extended family) (Andy et al., 2012b; Montalvo Salgado, 2011), their clothing, and their own forms of knowledge, among others, are considered fundamental. Currently 51,384 people speak an indigenous language in the province (SGDPN, 2023), with Kichwa being the main one (Andy et al., 2012a).

The economic activities of the Napo Runa described as traditional activities are agriculture based on the chakra system, hunting, fishing, making textiles with fibers and pottery (Andy et al., 2012b; Napo Prefecture, 2020). Currently, the economically active population (EAP) is mostly distributed in the tertiary or services sector (40.64%), which includes activities related to electricity supply, construction, commerce, transportation, public administration, among others. The second most important sector is the primary or agricultural sector (39.05%), which includes activities related to agriculture, livestock, forestry and fishing, and mining and quarrying (Napo Prefecture, 2020).

The Chakra System

The chakra system has its origins in pre-Hispanic ancestral practices, evolving with influences from the Kichwa culture and Amazonian environmental dynamics.

In general terms, a chakra is described as a traditional agroforestry system (Coq-Huelva et al., 2017; Vargas-Tierras et al., 2018), a space where a wide variety of plants, trees, and palms are found, differing in number and size. Chakras vary in size (between 0.2 and 4 hectares), and their management practices cannot be classified under a single concept (Bredero zur Lage et al., 2023). New chakras are created by clearing a section of forest through vegetation removal (Bredero zur Lage et al., 2023). In this process, some tree and palm species are retained for the new chakra. When the production of a chakra decreases a new one is created. However, the definition of chakra is more fluid among the Kichwa, and the characteristics of one chakra vary from one to another (Bredero zur Lage et al., 2023). Currently, the rotation of chakras is decreasing due to land scarcity caused by population growth (Bredero zur Lage et al., 2023).

Studies point to the chakra as a space of continuous adaptation: "In general, the Chakras imply an adaptive strategy directly associated with socioeconomic conditions oriented towards food security, land management, and the balanced use of forest resources through environmentally friendly approaches" (Vera et al., 2017). For Coq-Huelva et al. (2017):

> …The chakras are a prime example of socio-ecological co-evolution. The ecological and social elements are characterized by close interactions, and each chakra possesses its own biosocial self-regulation processes. These processes enhance the Kichwa communities' ability to adapt to changing conditions.

One of the fundamental aspects of the chakra is its intergenerational transmission. Traditionally, chakras have been inherited within Kichwa families, ensuring the continuity of this production system. Currently, the chakra system is not only used by the Kichwa but has also been replicated by settlers to meet their nutritional needs and generate income through the sale of their products (Jadán 2012 in Vargas-Tierras et al., 2018).

Utilitarian Values

Regarding the benefits of the chakra, the provision of food, medicine, and wood for families stands out, as well as environmental services such as erosion prevention and maintaining soil fertility, and creating shade (Bredero zur Lage et al., 2023; Coq-Huelva et al., 2017). A table showing the main plants found in a chakra and their associated values is presented below.

Table 1: Some plants of the chakra system, uses and value

Plant	Uses in the Chakra	Value within the Chakra
Naranjilla (Solanum quitoense)	Production of traditional juices and beverages, high in vitamin C.	Marketable fruit of high nutritional value, preserved due to its local importance.
Cassava (Manihot esculenta)	Basis of the Kichwa diet, used in the preparation of chicha and as a source of carbohydrates.	A staple crop, the basis of the Kichwa diet and traditional rituals.
Banana (Musa paradisiaca)	It is consumed ripe or green, used in soups and traditional foods.	Shade for other crops and provision of essential carbohydrates in the local diet.
Guayusa (Ilex guayusa)	Energetic and medicinal infusion, used in Kichwa rituals.	Sacred plant for ceremonies, traditional consumption and growing export product.
Corn (Zea mays)	Sacred crop in the Andean worldview, base of chicha and other foods.	Food staple and symbol of fertility within the Kichwa worldview.
Pineapple (Ananas comosus)	Tropical fruit rich in vitamins and used in drinks and desserts.	It brings diversity to the agroforestry system and generates income for Kichwa families.
Coffee (Coffea arabica)	Crop of economic importance, increasingly integrated into the chakra with an agroecological approach.	A marketable product that adapts to the agroforestry system without affecting its biodiversity.
Cacao (Theobroma cacao)	Main crop for chocolate production, with cultural and economic value in the Amazon.	Base of fair trade in the region, promoted by indigenous associations such as Kallari and Wiñak.
Chili pepper (Capsicum spp.)	Used in Kichwa cuisine for sauces and condiments, also with medicinal properties.	A crop with high culinary and medicinal value, adapted to diverse soil conditions.
Common bean (Phaseolus vulgaris)	Source of protein, used in various traditional preparations.	Important in crop rotation, it improves soil fertility and the local diet.
Sweet potato (Ipomoea batatas)	Tuber used in daily food, boiled or roasted, source of energy and vitamins.	It contributes to food security and diversification of the local diet.
Annatto (Bixa orellana)	Used as a natural condiment and as a dye in rituals and body painting.	Cultural and symbolic value; in addition to economic use in food and cosmetics.

Chinese potato (Xanthosoma sagittifolium)	Edible root, boiled or in soups, a food alternative to the Andean potato.	Important nutritional supplement in humid areas of the Amazon.
Medicinal and for rituals	Infusions to cure ailments, purification rituals and spiritual ceremonies.	They strengthen community health and Kichwa spirituality, maintaining the connection with nature.
Timber	Construction of houses, utensils and tools.	Source of sustainable materials and contribution to the conservation of tree biodiversity.

Source: Own elaboration obtained from (Chakra Corporation, 2023; Estupiñán Hernández, 2020).

The study by Bredero zur Lage et al. (2023) demonstrates that, although the chakra represents utilitarian, agroecological and mythical values, currently it is these utilitarian values that predominate in the management of the chakra (Bredero zur Lage et al., 2023)

Regarding utilitarian values, the importance of the chakra in food security is highlighted, as it is fundamental to guaranteeing food for the Kichwa communities of the Ecuadorian Amazon. Unlike industrial monocultures, which depend on external inputs and can collapse in the face of pests or climate variations, the chakra is based on crop diversification, which can include up to 199 species (UDLA-GIZ 2022), providing stability and resilience in food security. The chakra sustains community life and the indigenous economy. This system allows for agricultural production without compromising the ecological balance (Coral Guerrero, 2023). As one interviewee mentioned:

> If we don't work the fields, we have nothing to eat, we have no cassava, no plantains. (...) We plant to support our economy and to send our children to school. And cacao, right now cacao is more interesting, coffee, everything that grows here in the east, in the land (E21).

The importance of the chakra in the family economy is reflected in the amount of work family members dedicate to it. Studies show that the average work time required to maintain the chakra is 37.9 hours per week, without however, this time is variable and depends on the family's monetary and food requirements (Coq-Huelva et al., 2017).

> This product makes up 60-70% of what we consume from our farm. Cassava is very important because we use it to make our ancestral beverage, chicha de yuca. We also use plantain, lemon, lemon verbena, sweet potato, guaba, grape, blackberry…(E25).

Studies have shown that the chakra has played a crucial role in mitigating food crises in the Amazon. During the COVID-19 pandemic, for example, many Kichwa communities managed to remain self-sufficient thanks to the production of their chakras, avoiding dependence on urban markets and external supply chains. Furthermore, the combination of species within the chakra allows for the natural regeneration of the soil, preventing its degradation and ensuring long-term food production (Corna, 2021).

Traditional Medicine in the Chakra

The chakra is an agricultural production space and a repository of ancestral knowledge about medicinal plants used for generations to treat various ailments. In Kichwa culture, health is intrinsically linked to nature, and the species cultivated in the chakra are essential to traditional medicine. Among the most commonly used plants are guayusa (energizing and digestive), matico (healing), dragon's blood (anti-inflammatory and antiviral), cat's claw (strengthening the immune system), and tobacco (purification and spiritual protection) (Chakra Corporation, 2023). These plants are widely known locally and have historically played a fundamental role in the health of the population. For example, regarding the COVID pandemic, one interviewee stated:

> Like I said, during the pandemic... The farm saved us. I mean, we never... We never went to the health center, no. From the farm, they prepared medicine for us. From what they had there. And that, like, [for example, we put] tobacco up our noses. Tobacco (E17).

The use of these plants is not limited to the local community. In recent years, demand for them has expanded into national and international markets, generating economic opportunities, but also challenges.

Kichwa women have historically been the guardians of the chakra, playing a central role in planting, managing, and transmitting agroecological knowledge to future generations (Aguirre, et al., 2024). The chakra is not only a space for agricultural production, but also a setting for teaching and socialization where women educate their children about the use of medicinal plants, crop cycles, and ancestral traditions associated with agriculture (Ministry of Environment and Water, 2020).

Agroecological Values

The chakra contributes to mitigating climate change and achieving environmental sustainability, given that the quantity and diversity of plants allows for carbon sequestration (Torres et al 2015 in Bredero) and connection with surrounding forests, thus functioning as biological corridors (Torres et al 2015 and Vera Velez 2019 in Bredero

zur Lage et al. 2023). Coque-Huelva (2017) points out that "From an ecological point of view, the chakras can be considered an evolution of the Amazon rainforest. In fact, the forest is still present on most of the farms and represents more than 40% of their total area" (p. 15). The ecological value of the chakra is therefore relevant for the conservation of the forest heritage of the Napo province, a province where71.1% of its surface area has some conservation category (Napo Prefecture, 2020).

However, it is important to note that chakra management is not inherently sustainable. As Bredero sur Lage et al. (2023, p. 14) point out in their study of chakras in Napo, chakra management among the Kichwa should not be assumed to be inherently sustainable, as the management of trees and plants is primarily utilitarian, with limited emphasis on agroecological or mythical values. This challenges previous assumptions that Indigenous practices naturally promote ecological balance. While Indigenous peoples are often thought to live in harmony with nature, these idealized views can obscure the need for careful, contextualized assessments of sustainability and subsistence strategies.

RESULTS AND DISCUSSION

Main Transformations of the Chakra System

Climate Change and Deforestation due to the Presence of Timber Industries and Mining Operations

One of the main changes in the chakras that the interviewees point out are those caused by climate change and deforestation. Climate change has generated alterations in rainfall patterns, an increase in extreme temperatures, and the appearance of unusual winds that affect crop growth. The increased heat leads to plants growing less, and in the case of the wind, it can knock down trees in the chakras, which in turn also kills the plants (E17).

> Previously, we didn't see so much moniliasis (a disease caused by the fungus Moniliophthora roreri) in the cacao fields. But these past few years, I don't know why, it's been appearing so frequently. [...] That's why production has been decreasing a bit lately (E24))

Another factor that has led to changes in the chakra is the presence of logging companies. The demand for timber and the need for land for commercial crops have led to a reduction in the number of trees in the chakras. In communities with greater market access, a lower tree density is observed due to the preference for high-value commercial crops (Bredero zur Lage et al., 2023). In the interviews, the testimonies coincide in that families sell their timber to these companies and abandon diversified production, especially food production (E17).

Deforestation is also associated with the expansion of mining (gold and stone materials). Between 2015 and 2021, legal and illegal mining in the province of Napo expanded by 300%. Areas with mining activity increased by 855 hectares during this period (Paz, 2023). A more recent report indicates that by 2024, the growth of mining activity in the province will exceed 1,700 hectares.

In addition to deforestation, the impacts [of mining] include the degradation of riparian forests, the opening of illegal roads, the contamination of water bodies with heavy metals such as mercury, and increasing social conflict with Indigenous and local communities. The proximity of mining operations to key water sources seriously endangers the health of ecosystems and human populations, weakening sustainable alternatives such as ecotourism and community-based agriculture (EcoCiencia, 2025).

The rapid expansion of mining has led to an increased involvement of the region's inhabitants in this activity, especially in the wake of the COVID pandemic. Another consequence is the rise in violence within communities and the exacerbation of social conflicts (Paz, 2023).

The expansion of commercial crops, mining, and deforestation threaten the sustainability of the Chakra system. Although this production model has proven resilient, market pressures and limited access to land jeopardize its continuity (Coral Guerrero, 2023).

Sociocultural Changes

The interviewees point to economic and mythical values of the chakra that still persist:

> We ancestrally say that the chakra production system is a living space for us, where we take advantage of it in the best way, recreate, learn, feed, market, and understand the community around the chakra (E14).

> [The value of the chakra] It is economic because I harvest from the chakra and can sell it in my community. And it is spiritual because this comes from ancestral traditions that go back a long way. We don't want to lose these products that have been passed down from generation to generation (E22).

Howeverthe values associated with the cultural and spiritual dimensionThese practices are currently being lost. One of the main reasons is the transformation of agricultural work and the lack of generational succession. There is currently a general devaluation of agricultural work globally, which has led to a problem of intergenerational succession. Ancestral Kichwa practices have been transformed over time, along with the management and

administration of the chakra (traditional agricultural plot). Prioritizing urban lifestyles, young people are choosing to leave the countryside and seek employment in the city rather than work the land. According to the Ministry of Agriculture and Livestock (2022), only 0.23% of the population engaged in agriculture is under 20 years old, while 43.07% is between 41 and 60 years old, demonstrating a marked aging of the agricultural sector and a lack of interest among younger generations in rural work. The Kichwa population is no stranger to this reality; informants indicate that young people do not sell products from the chakra (farm) unless they see it as profitable (E9, E14). The testimonies state the following:

> Unfortunately, young people today are not taking that leadership, that role in cultivating, in planting what are our traditional chakras. Very few are getting involved (E22).

> In the garden, we plant trees so they won't be lost, we avoid using chemicals, and we teach our children to continue this tradition" (E19). However, generational succession faces challenges, since "some young people do not show the same interest in maintaining this production system, which worries the communities(E20).

This means that those currently in charge of the chakras are older, and in other cases, the chakras are abandoned (E14). This has a direct cultural impact since, along with the Kichwa language, the chakra system is perceived as an essential part of the identity of the Kichwa people of Napo (E16). One of the interviewees mentions that, along with strengthening the chakra system, they hope to "recover" values that have been lost:

> Lately, we, as Acción Wiñak, want to (…) recover our values, our cultures, all of that. Because in truth, lately it no longer exists. At least among young people, it no longer exists. They don't even want to speak Kichwa anymore. So it's difficult (E17).

It is also mentioned that, along with this recovery of values, "the Kichwa are trying to break out of their world without neglecting their culture" (E17). To this end, they recognize the importance of education and place value on maintaining traditions related to chakra management:

> Yes, there is a lot of work to be done. First, we have to continue educating, passing on our traditional knowledge and wisdom to our children. That is precisely our idea, as we see faith itself. As the ages advance, we cannot go beyond what we want, but we also want to rescue this knowledge, this production system, transmit it to our children, and ensure they understand consumption, the production system, and so on.(E14)

The decrease in land ownership within families is also a factor that has transformed the chakra system:

> Previously, each producer had a total area of 5 hectares, and over time, this has been limited, passed on to their children. The chakra originates precisely when a son or daughter marries their partner; here is their chakra, their plots of land, produced for the family's sustenance, food security [...]. Currently, the chakra is given to the son or daughter, so the size of the father's chakra is gradually decreasing (E14).

The rotation of chakras is declining due to land scarcity caused by population growth. In addition, the practice of leaving land fallow—that is, uncultivated for a period of time to allow the soil to recover naturally—is in decline, which affects tree regeneration in these systems (Bredero zur Lage et al., 2023).

Among the sociocultural changes, the shifts in the role of women in chakra work are also noteworthy. While traditionally chakra work has been primarily the responsibility of women (E14, E17), this has become more flexible. As the following testimony indicates:

> [In the chakra] men and women do the minga, that is, the husband, wife and also the children. But for planting, it is the one with a good hand, it is the woman. And also the children, the children when they are small […] the man goes to make firewood, or goes to continue clearing the land for new crops. […] it is said that when a woman plants, the fruits come out more… better, and it also says, depending also on the hand, that is, on the skill of the person at planting (E18).

> "Now we are warmimandashka, that is, ruled by the woman" (E17).

However, although there is currently more participation of men in the management of the chakra, in the rural area, the work in the chakra, along with the raising of small animals, and the care of crops are an extension of domestic work (Napo Prefecture, 2020), which in general terms, continues to fall mainly on women (INEC, 2020).

> Here in my community, the woman is always the one who leads and manages the chakra. The woman is the one who plants. The men help with cleaning, but not with planting (E22).

The migration of young people to cities in search of employment has left many women solely responsible for maintaining the chakras, increasing their workload. Furthermore, in some communities, the influence of external agricultural models has led to increased male participation in chakra management, progressively displacing the traditional female role in decision-making regarding land use and crop allocation (PALACIOS CHÁVEZ, 2018).

> I am alone, so I cannot go out to harvest alone. My daughters, with their children, come to help me. They work with a scythe, and I go behind pruning (E26).

Another factor that has contributed to this transformation of roles within the farm is problematic alcohol consumption among some men in the communities. By limiting their participation in agricultural activities, the burden of planting, tending, and harvesting falls more heavily on the women. As one testimony mentions:

My husband is at home… he lives in the house, but he drinks a lot. I go to the farm by myself, I work" (E21).

In this sense, alcoholism not only generates family tensions but also modifies the productive organization, forcing women to assume roles that were previously shared, thus reinforcing their central role in the sustainability of the farm. As external observers have pointed out, this situation is reflected in the Napo region, where the replacement of traditional chicha with high-proof industrialized beverages has increased consumption, particularly affecting male participation in agricultural work (ORUS, 2025).

Marketing Models: From Self-Consumption to the International Market

Traditionally, the chakra has been used as a production space for self-consumption and community bartering. However, in recent decades, the growing demand for Amazonian products in national and international markets has transformed the economic dynamics of many Kichwa communities. Apart from the treesand plantsIn addition to crops planted for self-consumption, other species with market potential have been introduced (Vargas-Tierras et al., 2018). Crops such as fine aroma cocoa, guayusa, and vanilla have gained relevance in exports, providing new economic opportunities for producers.(Cedeño, 2025).

The expansion of the marketing of chakra products has two facets: on the one hand, there is an expansion of "fair trade" practices and organic certifications, and on the other hand, there is an expansion of practices based on monoculture. Marketing models such as fair trade and organic certifications have allowed associations like Tsatsayaku to guarantee fairer prices for small-scale producers. Through these systems, Kichwa families have been able to position their products in international markets without intermediaries, granting them greater economic autonomy and improving their quality of life (Cedeño, 2025). In this sense, fair trade has been key to strengthening the Chakra system in Kichwa communities of the Ecuadorian Amazon. Organizations like Kallari have enabled producers to sell cacao and other crops at fairer prices, eliminating intermediaries and guaranteeing sustainable income (Coral Guerrero, 2023).

Regarding monocultures, the growth in exports of products like guayusa and cacao has led to the replacement of traditional garden plots (chakras) with monoculture. Informants mention that families decide to switch from their garden plots to monoculture when they see a product begin to gain traction in the international market (E14). For example, in the case of guayusa, many families dedicated themselves to planting it, sacrificing part of their garden plots, and currently have an overproduction of the plant because it is not selling or buyers have not paid them for over a year (E3). On the other hand, some communities have begun planting timber species within their garden plots to sell the wood, while those less connected to markets maintain a subsistence approach.(Bredero zur Lage et al., 2023).

The shift from subsistence farming to national and international trade has repercussions, especially when the expansion of commercialization is linked to the replacement of the traditional agricultural plot (chakra) with monoculture. The lack of crop diversification on farmland leads families to depend on a single product, which negatively impacts their economy and daily diet, thus jeopardizing their food security. Companies like Wiñak, dedicated, among other things, to guayusa production within the traditional agricultural system, attempt to prevent producers from expanding beyond the designated agricultural boundaries by imposing regulations on those producers who are part of their association (E14).

Some of these results coincide with what was mentioned by Coq-Huelva et al., (2017) in terms of the chakra system changing as a result of population growth, less availability of land, increased family needs and greater possibilities of access to income abroad.This is a problem insofar as socially, the main role of the chakra is its contribution to the food security of Kichwa families (Coq-Huelva et al., 2017).

Public Policies and Construction of Ideology Chakra

The province of Napo has implemented various public policies aimed at conserving and strengthening the Amazonian chakra system. These policies recognize the importance of the chakra not only as a means of subsistence for Kichwa communities, but also as a model of sustainable production that contributes to biodiversity conservation and climate change mitigation.

One of the standout initiatives is the "Participatory Guarantee System (PGS) for the Chakra Kichwa Amazonian Seal," promoted by the Chakra Group, with the support of the Napo Prefecture and in coordination with the Ministry of Agriculture and Livestock (MAG). This mechanism seeks to differentiate and add value to products cultivated using this ancestral model, giving them a competitive advantage in the local, national, and international markets. However, the Chakra Group has identified that, in the marketing of these products, there is no adequate differentiation or recognition of the comparative advantages related to the ancestral production methods in the Napo province. This lack of recognition represents a missed opportunity to generate better conditions and benefits for producers in terms of prices and product promotion (Chakra Group, 2020).

Illustration 1_ Chakra logo
Fountain: (Chakra Group, 2020).

In addition, training programs have been implemented for local farmers. For example, the Ministry of Agriculture and Livestock (MAG), through the Napo District Directorate and the Undersecretariat of Family Farming, has established the "Chakra in Practice Learning Communities." These communities aim to formulate and coordinate the implementation of public policies, programs, and projects in sustainable production systems with an emphasis on agroecology. In the training sessions, participating producers acquire knowledge in land planning, soil and water management and conservation, bio-input production, forestry, small animal husbandry, organizational strengthening, marketing, and food sovereignty (Ministry of Agriculture and Livestock, 2020). These public policies and programs reflect the orientation of the Napo province towards the promotion and strengthening of the Amazonian chakra system, recognizing its cultural, economic, and environmental value for local communities.

Related to the marketing of chakra products, Napo Prefecture (2020) It states the following:

Furthermore, the local, national, and international marketing of chakra products lacks differentiation and recognition of the comparative advantage associated with the ancestral production methods in the Napo province. Consequently, this opportunity to generate better conditions and benefits for producers in terms of pricing and product promotion is missed. In light of this reality, the Chakra Group has been promoting a local mechanism with international reach for marketing, known as the Participatory Guarantee System (PGS), for the Chakra Kichwa Amazonian Seal.

What we observe in the described case is the emerging process of constructing a chakra ideology, understood as a strategic discourse that redefines and revalues elements of the ancestral production system to integrate them into contemporary market dynamics. Through public policies, certification systems such as the Amazonian Kichwa Chakra Seal, and training programs, narratives are articulated that present the chakra not only as a cultural or ecological model, but also as a brand with added value capable of competing in regional, national, and international commercial circuits. This ideology arises not only as a cultural defense, but also as a pragmatic response to the challenges of differentiation and positioning in the global market. By highlighting sustainability, biodiversity, and ancestral knowledge as comparative advantages, a narrative is constructed that seeks to legitimize and economically value chakra production. Thus, the maintenance and promotion of this system is no longer merely a local cultural or agroecological practice, but also a commercial strategy, where cultural values are translated into symbolic capital that is then sought to be converted into economic capital.

Technologization of the Chakra System

The chakra system, traditionally based on ancestral knowledge transmitted orally and sustainable agroecological practices, has begun to undergo a process of technological integration driven by various factors. The introduction of technological tools has been promoted by both the Kichwa communities themselves and by academic institutions, NGOs, and government entities, with the aim of improving productivity, monitoring biodiversity, and facilitating the marketing of chakra products (Bredero zur Lage et al., 2023; Napo Prefecture, 2020). One of the interviewees mentions:

> We are now working on a program called canopy replacement. [...] We graft with improved seedlings. Before, they produced 3 or 4 quintals; now we can triple that, but the chakra system doesn't allow for many plants per hectare, so we can't reach that full potential (E23).

This testimony refers to the application of grafting techniques in cacao cultivation within some chakras (traditional agricultural plots), as part of the "canopy replacement" program. Although these techniques improve yield per plant, the agroforestry design of the chakra system—which prioritizes biodiversity and crop spacing—is maintained, limiting plant density per hectare. Therefore, even with the use of improved technology, the total productive potential per unit area is lower than in intensive monocultures, but higher when considering crop diversity, soil benefits, and the maintenance of biodiversity, which leads to reduced pest infestation.

In the commercial sphere, technology has enabled greater digitalization of the marketing of products from the chakras (traditional agricultural plots) and improved incomes. Online platforms, digital certifications, and the use of QR codes on packaging have facilitated the traceability of products grown in the chakras, allowing consumers to know their origin and strengthening fair trade. Companies and associations like Wiñak have implemented online sales strategies to connect Kichwa producers with national and international markets, ensuring better prices and reducing intermediaries (Wiñak Association, 2023; Napo Prefecture, 2020).

In recent years, the Kallari Association has incorporated technological tools to strengthen the management and traceability of its productive farms (chakras) as a means of generating income for families (Albán-Baldeón, 2020). One of the most significant advances has been the digitization of the territory through the use of QField and QGIS software, both open source. For this purpose, field technicians use tablets to load a georeferenced project that allows them to collect key data such as the producer's location, the community, the type of crop, and the size of the farm. Each technician delineates the polygons of the plots during field visits, and subsequently, all the information is integrated and unified in QGIS. This process was overseen by a geographer, who was responsible for comparing the geospatial data and verifying its accuracy against the official cartography of the Ministry of Environment, Water and Ecological Transition (MAATE). In this way, it is ensured that the mapped farms meet sustainability criteria, such as being free of recent deforestation. This approach reflects the motivation to strengthen certification and origin control systems and to combine an ancestral system with modern tools, in order to meet the demands of export markets, such as traceability and transparency.

Reflections

The chakra system cannot be analyzed as an isolated or romanticized practice, separate from the structural conditions that communities experience in their daily lives. The province of Napo, where many of these practices are concentrated, faces high levels of poverty, rapid expansion of mining, and deficiencies in access to health, education, and basic services. In this context, preserving and strengthening the chakra cannot depend solely on individual will or economic and cultural discourse; it requires comprehensive policies that recognize the interdependence between food sovereignty, social justice, and territorial rights. The chakra, on its own, does not solve the structural problems facing the region. However, ignoring its potential (and at the same time, failing to recognize the limitations imposed by the context of inequality) would be to fall into an idealistic view that disconnects the cultural from the political and economic.

Innovating our understanding of the chakra system is now an urgent necessity if we want to avoid its folklorization or its functional disappearance. It is not enough to evoke it as a cultural or ancestral symbol: the chakra system must be understood as a dynamic and situated practice, fundamental to the food security of Kichwa families in Napo, while preserving biodiversity. Social transformations, the expansion of deforestation and mining activities, youth migration, the weakening of the Kichwa language, the pressure for monetary income, and changing gender roles demand that we consider the chakra system not as a static inheritance, but as a contested space. Reinterpreting this space means opening it to new forms of knowledge, strengthening its role in food security, and ensuring that future generations see it not only as tradition, but as a way of life. The food security provided by the chakra faces growing threats, such as the expansion of export crops (cacao, guayusa, palm heart, coffee), which can displace traditional crops essential to the local diet. To counteract this problem, it is necessary to implement public policies that promote diversified production and provide incentives to communities that preserve this ecosystem.

On the other hand, the modernization and commercialization of the chakra system, while offering real opportunities for market access and income improvement, must be critically evaluated. Uncontrolled commercialization jeopardizes the sustainability of this production system, if proper management strategies are not implemented, carries the latent risk of imposing a logic of monoculture, productive efficiency, and external control (under the guise of sustainability).

It is therefore essential that public policies not only protect existing chakras, but also support their potential expansion and regeneration in communities where this practice has declined, viewing it as an opportunity to guarantee food security for Indigenous families (Buitrón and López, 2019). Economic incentive programs for agroecological production, environmental education in Indigenous communities, and the creation of short marketing circuits can strengthen this system. Likewise, recognizing the chakra system within environmental conservation policies would reinforce its role as an ecological corridor that protects Amazonian biodiversity.

The Amazonian Kichwa Chakra seal is an example of an initiative that seeks to differentiate and add value to products cultivated under this model, giving them a competitive advantage in the market, since it incorporates ancestral knowledge and practices that have allowed Kichwa families to subsist over time (Aniceto et al., 2018). However, the challenge lies in preventing the chakra system from becoming a disguised replica of the agro-industrial model, only with an Indigenous face. QR codes, certifications, and georeferencing are useful tools, but they must be accompanied by broader and more participatory planning regarding the chakra's usefulness to families and its role in food sovereignty. If the market dictates the rules and life cycles, the chakra loses its territorial anchoring. Furthermore, the chakra system should not be interpreted from an idealized and static perspective regarding ancestral farming practices; it is necessary to analyze it more deeply, considering current needs and the sociocultural transformations that the Kichwa people have experienced in recent decades. In any case, any innovation or interpretation of the chakra system, in this context, must come from within, from local voices and not be imposed from the outside.

CONCLUSIONS

The chakra system represents an agroforestry model of great importance to Kichwa culture and environmental sustainability in the Ecuadorian Amazon. However, it faces significant challenges stemming from climate change and deforestation due to logging and mining activities. Population growth, pressure from the global market, declining generational succession, the expansion of monocultures, and the reduction of available land have also transformed this system.

Sociocultural changes include, among others, the aging of those who manage the chakra, youth migration, and the decrease in available land due to family inheritances. Women remain central to the chakra production system, but they face new forms of overwork and vulnerability. Although men's roles have increased, inequalities persist in workload and in the recognition of women's work. All of this points to a breakdown in the intergenerational transmission of knowledge regarding chakra management and a reduction in resilience.

Faced with these challenges, various initiatives have emerged to promote the conservation and strengthening of the chakra production system, including certification programs, fair trade initiatives, and digitalization efforts that aim to improve the profitability of products grown under this model. This has generated economic opportunities, but also tensions with the ecological and cultural principles of the system. A trend toward monoculture, driven by international demand, is observed, which compromises food security and biodiversity.

A redefinition of the chakra system as an identity and business strategy is also evident. Through public policies, certifications such as the Chakra Seal, and training programs, a narrative is being constructed that transforms the chakra into a culturally distinctive production model with added value. This seeks to position the chakra system through a discourse that presents it as an ancestral legacy and a sustainable innovation.

REFERENCES

Aguirre, Z., Aguirre, N., Contento, C. (2024). The Amazonian aja or chakra in Ecuador. Nature (2). Casa de la Cultura Ecuatoriana Benjamín Carrión Núcleo de Loja. Loja Ecuador.

Albán-Bedón, S. (2020). Building bridges and constructing alliances. PRO-Amazonia Blog.https://www.proamazonia.org/tendiendo-puentes-y-construyendo-alianzas/

Andy, P., Calapucha, C., Calapucha, L., López, H., Shiguango, K., Tanguila, A., Tanguila, D., & Yasacama, C. (2012a). Wisdom of the Kichwa culture of the Ecuadorian Amazon Volume 1 (U. de Cuenca, UNICEF, & DINEIB, Eds.; U. de Cuenca, Vol. 1).

Andy, P., Calapucha, C., Calapucha, L., López, H., Shiguango, K., Tanguila, A., Tanguila, D., & Yasacama, Carmen. (2012b). Wisdom of the Kichwa culture of the Ecuadorian Amazon Volume 2 (U. de Cuenca, UNICEF, & DINEIB, Eds.; U. de Cuenca, Vol. 2).

Aniceto, J.; Cardenas, J.; Cuji, A.; Enomenga J.; Enkeri, R.; Gualinga, E.; Mashian, L.; Santi, B.; Shiguango, P.; Mashinkiash, M.; Merino, T.; Pardo, D.; Tocancipa, J., and Ushigua, R. (2018). Chakra/aja achuar-Shiwiar-Shuar/ kewene: Amazonian ecosystems, gardens and food production. Amazonian State University. Puyo, Ecuador.

Wiñak Association. (2023). Wiñak. https://www.winak.org/

Bredero zur Lage, R., Peña-Claros, M., & Rios, M. (2023). Management of trees and palms in swidden fallows by the Kichwa people in the Ecuadorian Amazon. Environmental Development, 46.https://doi.org/10.1016/j.envdev.2023.100855

Buitrón, V., & López, M. (2019). Indigenous women's work in the family agricultural economy in the Amazon of southern Ecuador. Espacio y Desarrollo No. 33, 67-89.https://doi.org/10.18800/espacioydesarrollo.201901.004

Cedeño, PL (2025). From the "chakra" to the company: the story of Nelly. Https://Ecuador.Un.Org/Es/288323-de-La-Chakra-La-Empresa-La-Historia-de-Nelly?Utm_source.

Coq-Huelva, D., Higuchi, A., Alfalla-Luque, R., Burgos-Morán, R., & Arias-Gutiérrez, R. (2017). Co-evolution and bio-social construction: The Kichwa agroforestry systems (Chakras) in the Ecuadorian Amazon. Sustainability (Switzerland), 9(10). https://doi.org/10.3390/su9101920

Coral Guerrero, CA (2023). KALLARI: entrepreneurship for the community and nature.: Vol. 1st ed. (SEK University). SEK International University.

Corna, S. (2021). Indigenous agroforestry systems empowerment as participatory sustainable development strategy for the Amazon basin: "Chakra Kichwa Amazónica" of Ecuador. https://doi.org/10.13140/RG.2.2.12492.08325

Chakra Corporation. (2023). The Amazonian Chakra, a traditional agroforestry system managed by indigenous communities in the province of Napo - Ecuador. https://Openknowledge.Fao.Org/Server/Api/Core/Bitstreams/C55b4bcf-D921-44da-8cdb-5e0a4cc2f92f/Content?

Chakra Corporation. (2024). CHAKRA SEAL. https://www.Corporacionchakra.org/Que-Es-El-Sello-Chakra/.

EcoCiencia. (2022). Ecuadorian Amazon: Remaining Natural Cover and Deforestation. EcoCiencia Foundation. https://storymaps.arcgis.com/stories/15ecfd40149649afa28643e2d57195fc

EcoCiencia. (2025). Growth of mining activity exceeds 1,700 hectares in the province of Napo. EcoCiencia. https://ecociencia.org/crecimiento-de-la-actividad-minera-supera-1-700-hectareas-en-la-provincia-de-napo/

Estupiñán Hernández, MJ (2020). Revitalization of the use of food plants in the Kichwa chakra of the Sinchi Warmi Community Tourism Center. Ibero-American Journal of Environment & Sustainability, 98–109. https://doi.org/10.46380/rias.v3i2.94

Chakra Group. (2020). The Amazonian Kichwa Chakra: Local governance and climate resilience in the province of Napo. Https://Derechoforestalecuador.Org/Wp-Content/Uploads/2022/08/Sistematizacion_chakra_gobernanza_resiliencia_climatica_14.12.20.Pdf?

Heifer International. (2024). Ecuador. Https://Www.Heifer.Org/Our-Work/Where-We-Work/Ecuador.Html.

INEC. (2023a). Ecuador's population grew by 2.5 million people between 2010 and 2022. https://www.ecuadorencifras.gob.ec/institucional/ecuador-crecio-en-2-5-millones-de-personas-entre-2010-y-2022/

INEC. (2023b). National Institute of Statistics and Censuses. https://app.powerbi.com/view?r=eyJrIjoiNGUxZjQyMDUtMzg0Zi00MzI0LTk5NWEtY2JiMWUzM2YyYjdlIiwidCI6ImYxNThhMmU4LWNhZWMtNDQwNi1iMGFiLWY1ZTI1OWJkYTExMiJ9

International Tourist Platform Goraymi. (2024). Provinces of the Ecuadorian Amazon. Retrieved from https://www.goraymi.com/es-ec/ecuador/mapas/provincias-amazonia-ecuador-ald7nzf0m

Ministry of Agriculture and Livestock. (2017). National Food Sovereignty Day. https://www.agricultura.gob.ec/El-16-de-Octubre-Se-Conmemora-Dia-Nacional-de-La-Soberania-Alimentaria/?

Ministry of Agriculture and Livestock. (2020). Farmers from Napo graduate from the Chakra in Practice Learning Communities. https://www.agricultura.gob.ec/agricultores-de-Napo-se-graduan-de-las-comunidades-de-Aprendizaje-Chakra-en-Practica/.

Ministry of Agriculture and Livestock. (2022). Institutional Strategic Plan of the Ministry of Agriculture and Livestock 2021–2025.

Ministry of Environment and Water. (2020). The Amazonian Chakra. https://www.ambiente.gob.ec/wp-content/uploads/downloads/2020/07/la-chakra-kichwa-amazonica.pdf?

Montalvo Salgado, AD (2011). Community tourism as a sustainable development alternative for three Kichwa communities of the Upper Napo in the Ecuadorian Amazon Region (RAE): an analysis from the perspective of socio-economic arrangements and territory [Latin American Faculty of Social Sciences]. http://repositorio.flacsoandes.edu.ec/handle/10469/3276

Muratorio, B. (1989). God in the jungle: Christian acculturation and cultural resistance among the Napo Quichuas of the Upper Ecuadorian Amazon. Amerindian Religions: 500 Years, 11–39.

Muratorio, B. (1998). Rucuyaya Alonso and the Social and Economic History of Alto Napo. In Abya-Yala. Abya-Yala. https://digitalrepository.unm.edu/cgi/viewcontent.cgi?article=1182&context=abya_yala

Oakdale, S. (2013). The Ecology of the Spoken Word: Amazonian Storytelling and Shamanism among the Napo Runa by Michael A. Uzendoski and Edith Felicia Calapucha-Tapuy. Anthropological Linguistics, 55(2). https://doi.org/10.1353/anl.2013.0010

ORUS, C. (2025). CHRONICLE OF ECUADOR VI. KICHWAS AND REDWOODS. https://Desdelagavia.blog/2025/01/30/cronica-de-ecuador-vi-kichwas-y-secoyas/

PALACIOS CHÁVEZ, GM (2018). THE ROLE OF THE KICHWA LAMAS INDIGENOUS WOMAN IN THE CONSERVATION OF COMMUNITY FORESTS AND THEIR PARTICIPATION IN THE IMPLEMENTATION OF THE CONDITIONAL DIRECT TRANSFERS MECHANISM.

Paz, A. (2023). Ecuador: Legal and illegal mining increases by 300% in the Amazonian province of Napo. Mongabay. https://es.mongabay.com/2023/04/mineria-aumenta-en-napo-ecuador/

Napo Prefecture. (2020). Decentralized Autonomous Government of Napo. Napo Development and Territorial Planning Plan 2020-2023.https://www.napo.gob.ec/website/index.php/transparencia/plan-de-ordenamiento-territorial

Reátegui, K. (2011). Aja Shuar. Ancestral knowledge and practices. (Postgraduate thesis). Intercultural University of Indigenous Nationalities and Peoples, Popayán, Colombia.

Trias. (2024). The Amazonian Chakras: The rebirth of ancestral and sustainable agriculture in the Amazon. https://Worldwide.Trias.Ngo/Es/Noticias/Las-Chakras-Amazonicas-El-Renacimiento-de-Una-Agricultura-Ancestral-y-Sostenible-En-La-Amazonia/.

UDLA and GIZ (2022). Manual of good agricultural practices for guayusa and cocoa crops based on the Chakra production system and biodiversity for the Ecuadorian Amazon. Quito, Ecuador.

Uzendoski, M. (2006). The return of Jumandy: historicity, kinship and language in Napo. Íconos - Revista de Ciencias Sociales, 0(26), 161–172. https://doi.org/10.17141/iconos.26.2006.180

Uzendoski, M. (2010). The Napo Runa of the Ecuadorian Amazon (Abya-Yala). Abya-Yala.

Vargas-Tierras, YB, Prado-Beltrán, JK, Nicolalde-Cruz, JR, Casanoves, F., De Melo Virginio-Filho, E., & Viera-Arroyo, WF (2018). Characterization and role of Amazonian fruit crops in family farms in the provinces of Sucumbíos and Orellana (Ecuador). Corpoica Ciencia y Tecnologia Agropecuaria, 19(3). https://doi.org/10.21930/rcta.vol19_num3_art:812

Vera, RR, Cota-Sánchez, JH, & Grijalva Olmedo, JE (2017). Biodiversity, dynamics, and impact of chakras on the Ecuadorian Amazon. Journal of Plant Ecology, 12(1).https://doi.org/10.1093/jpe/rtx060

