Tribes Data - Profiles

July 2023

NOTE The first section of each tribe is the current profile being used to compare to the one generated. These profiles were created in combination with multiple sources - not purely aggregated to avoid redundancy and slight variation in statistics.

1 Tsimane

1. The Tsimane are lowland forager-horticulturalists in the Beni region of Bolivia with a total population of 11,000, living in 90+ villages comprised of extended family clusters. The Tsimane diet consists of cultivated staples from slash and burn horticulture (66%), wild game from hunting (17%), freshwater fish (7%), and fruits and nuts from gathering (6%). Market foods (e.g. sugar, pasta, crackers) and domesticated animals (e.g. chicken, pork and beef) each provide 2% of the daily calories. Many Tsimane are isolated from modern society and have not yet undergone an epidemiological and technological transition. Only a couple villages have any electricity, and there is still no running water or waste management. However, as new roads were built in the 1970s, and with greater socioeconomic development in the Beni, the Tsimane have come into greater contact with outsiders. Both the riverine and forest villages are located at least a day's travel (by canoe and truck, respectively) from the closest market town, San Borja. However, in the riverine region, proximity to a Catholic mission provides some access to health care and formal education, and there is limited trade along the river. The forest region offers opportunities for wage labor with logging companies in the dry season. The near town region is a 1 hr taxi ride from San Borja. In and around San Borja, Tsimane sell cash crops, purchase clothes, visit the hospital and health clinic, and obtain wage labor opportunities usually as ranch hands. Tsimane make occasional visits to San Borja during town festivals, and some sell agricultural produce or handicrafts. Near San Borja, some Tsimane work as farm hands for local ranchers. Along the upper Maniqui River, Tsimane sometimes collect jatata palm leaves and weave them into roofing panels. These panels are then traded with itinerant merchants who provide market goods and alcohol. The exchange rates vary

among merchants, but most are unfavorably low. Goods are usually given in advance of payment, and Tsimane rarely refuse these 'gift' advances, which positions many households in a cycle of debt with the merchants. A majority of Tsimane villages currently have an elementary school (grades 1–5). Classes are typically only half day, but attendance may be sporadic, and classes often involve traditional skills such as fishing. More advanced education (grades 6–12) is only available in the near town villages. By age 15, males and females were already close to adult work levels. Men and women spent about 5 and 2 hrs/day, respectively, in direct productive tasks such as hunting, fishing and farming. Women and men spent an additional 4–6 hrs and 1.5 hrs/day, respectively, in domestic tasks like childcare and food processing. Direct productive tasks among women and domestic labor tasks among men remained relatively consistent over the lifespan. Among men, wage labor was concentrated among younger men, hunting between 30–45 yrs, and gardening after age 50. Among women, time spent in direct production was constant, while childcare peaked from ages 20–40 and food processing time increased throughout adulthood. The Tsimane have a very young age structure. Approximately 51% of the current population is under age 15 and only 10% over the age of 45. The sex ratio is male-biased during early childhood, and most of adulthood, with a slight female-bias present during adolescence and early adulthood (15-24) and after age 70.

https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0055679

https://escholarship.org/content/qt6rf56475/qt6rf56475.pdf

2. The Tsimane spend only 10% of their daytime being inactive. They live a subsistence lifestyle that involves hunting, gathering, fishing and farming, where men spend an average of 6-7 hours of their day being physically active and women spend 4-6 hours. Their diet is largely carbohydrate-based (72%) and includes non-processed carbohydrates which are high in fibre such as rice, plantain, manioc, corn, nuts and fruits. Protein constitutes 14% of their diet and comes from animal meat. The diet is very low in fat with fat compromising only 14% of the diet – equivalent to an estimated 38 grams of fat each day, including 11g saturated fat and no trans fats. In addition, smoking was rare in the population.

   https://www.sciencedaily.com/releases/2017/03/170317132004.htm

3. The Tsimane inhabit areas of lowland Bolivia along the Maniqui River and in adjacent forests. While families may spend weeks or months on hunting or field cultivation trips away from settled villages, the Tsimane are semi-sedentary and live in communities ranging from 30 to 500 individuals. Most food the Tsimane consume derives from horticulture, fishing, hunting, and gathering activities. They cultivate plantains, rice, corn, and sweet manioc in small swiddens, and regularly fish and hunt for meat.

Polygyny is rare though does occur at low frequencies (10%) in more remote communities. While exclusive priority of access for individuals or small groups to certain rights and resources is minimal, land close to village centers is de facto privately owned. Disputes over land access for horticultural purposes are common, especially between neighboring families. Success in group conflicts- one of our four status variables- is in large part a measure of success in inter-family competition for land or other resources. Violence between adult males is not uncommon, typically in the form of dyadic fights resulting from sexual jealousy, theft, or stinginess. Dispute resolution is typically left to the parties directly involved or, on rarer occasions, adjudicated by an informal gathering of adult men. Elected village leaders are principally representatives to outside political bodies, and they generally have short tenure and little coercive authority within their villages. Community-wide meetings are common in Tsimane villages; they often concern disputes over the sale of community lumber or participation in government or NGO-sponsored development projects. Influence within the context of community-wide disputes, the third of our status measures, will often accrue to the individuals who are most persuasive during community meetings. Elected leaders are not necessarily the most influential individuals in their villages, nor are they necessarily the most respected. "Respect" is more opaque in its meaning than our other status measures but is used by the Tsimane to describe individuals worthy of admiration. In Tsimane villages, especially those located near the town of San Borja (population 14,000), incipient cattle ownership, wage labor with loggers and farmers, and produce sales to local markets are on the rise. Several Tsimane entrepreneurs operate small businesses where they purchase goods in San Borja and then resell them to other village members. Many Tsimane villages now have access to public schooling for their children. One of the more acculturated Tsimane villages, Ton'tumsi, was the location of this study. Ton'tumsi is one of the largest Tsimane villages and is about a two-hour drive, via logging road and highway, to San Borja. Data are not available at present to compare status hierarchies in Ton'tumsi with status hierarchies in less acculturated Tsimane villages. Nevertheless, the process of acculturation is mosaic, and individuals in Ton'tumsi vary greatly in education and income. Among the Tsimane in general, the mean levels of wealth inequality are relatively high for a small-scale society.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2598750/

4. The Tsimane are lowland forager-horticulturalists living in small villages composed of extended family clusters, located primarily in the Maniqui river system in the Ballivián and Yacuma Provinces of the Beni region of Bolivia. Approximately 8,000 Tsimane inhabit 80 villages in the forest and savanna regions between San 10 Borja, the foothills of the Andes and San Ignacio de Mojos. Almost all of the food the Tsimane consume

derives from slash and burn agriculture, fishing, hunting, and gathering. They cultivate plantains, rice, corn, and sweet manioc in small swiddens and regularly fish and hunt for meat. Subsistence tasks are primarily performed by all adults within a group of kin-related households, although group fishing, cooperative hunting and field clearance are not uncommon. Some degree of the Tsimanes' isolation is suggested by the fact that their language is an isolate, even within Bolivia. Tsimane villages vary in their degree of market access and interaction with Bolivian nationals. Acculturation takes several principal forms: visits to the main market town, San Borja (pop'n 18,000), and the selling of agricultural produce, wage labor with loggers or colonists, debt peonage with river merchants and formal schooling. Portable radios that transmit messages and music from the New Tribes radio tower outside of San Borja are also available in many villages. The Tsimane came into greater contact with outsiders as new roads were built in the 1970s, inviting a burst of logging and trading interests, as well as encroachment by lowland and highland colonists (Ellis, 1996; Chicchón, 1992). Market items that are highly valued by the Tsimane include clothing, aluminum pots, utensils, salt, sugar, kerosene and school supplies. Schools exist in over 2/3rd of all Tsimane villages, having been established anywhere from two to twenty years ago. Tsimane make occasional visits to San Borja during town festivals, and some sell agricultural produce or handicrafts. Near San Borja, some Tsimane work as farm hands for local ranchers. Along the upper Maniqui River, Tsimane sometimes collect jatata palm leaves and weave them into roofing panels. These panels are then traded with itinerant merchants who provide market goods and alcohol. The exchange rates vary among merchants, but most are unfavorably low. Goods are usually given in advance of payment, and Tsimane rarely refuse these 'gift' advances, which positions many households in a cycle of debt with the merchants. The Tsimane have a very young age structure. Approximately 51% of the current population is under age 15 and only 10% over the age of 45. The sex ratio is male-biased during early childhood, and most of adulthood, with a slight female-bias present during adolescence and early adulthood (15-24) and after age 70.

https://escholarship.org/content/qt6rf56475/qt6rf56475.pdf

5. The Tsimane inhabit tropical forest areas of the Bolivian lowlands, congregating in small villages near large rivers and tributaries. Roughly 8,000 Tsimane live in dispersed settlements in the Beni region. Tsimane have had sporadic contact with Jesuit missionaries since before the eighteenth century, although they were never successfully converted or settled. Evangelical and Catholic missionaries set up missions in the early 1950s and later trained some Tsimane to become teachers in the more accessible villages. However, the daily influence of missionaries is minimal. Market integration is increasing, as are interactions with loggers, merchants, and colonists. Most Tsimane continue to fish, practice horticulture, and hunt

and gather for the bulk of their subsistence.

https://www.gurven.anth.ucsb.edu/sites/secure.lsit.ucsb.edu.anth.d7_gurven/files/sitefiles/papers/GurvenKaplan2007pdr.pdf

2 Hadza

1. The Eastern Hadza occupy a 2,500 km2 area in the Eastern Rift Valley, southeast of Lake Eyasi. Much of the country is rock-strewn and hilly. Vegetation is primarily mixed savanna woodland; medium and large mammals are locally abundant. The Hadza divide this region into several loosely bounded units, including Mangola in the north, Siponga in the east, Tli'ika in the southwest. At the time of European contact, around the beginning of this century, the Hadza had this country largely to themselves. They apparently lived entirely by hunting and gathering, except at the southwestern extreme of their range. Non-Hadza settlement is now heaviest in Mangola and Siponga. Hadza have been closely surrounded by neighbors and traded with them for at least the last 100 years. Although most reports concern receipt of cloth, pots, and iron, Hadza could also have obtained food if they needed it. Today individual Hadza frequently work for farmers guarding maize fields, or harvesting sweet potatoes, and all Hadza sometimes beg off farmers and trade honey with herders. Hadza use of farm foods has varied greatly over the last 40 years. Intermittent imposed settlements included delivery of maize, irregularly and unreliably. Some Hadza have spent long periods living in a settlement or village, but most did not and few do today. Much of the time almost no food was provided to settlements. Hadza trying to modernize by living in larger, more stable communities still fed themselves from the bush. Some Hadza live near villagers (farmers) and others far from them. In 1985–1986, working in one of the most remote locations, Hawkes et al. (1997) and found that only 5% of food came from farmers (carried back from visits to villages). In 1995–1996, Marlowe (1997) worked in a variety of camps including some very near village sand farmers. About 11% of Hadza food came from agricultural, non-wild resources.

   https://content.csbs.utah.edu/ hawkes/Blurton%20Jones%20et%20al.%202002%20AJHB.pdf

2. The Hadza in the eastern rift valley of Tanzania were studied in the mid-1980s by Nicholas Blurton Jones and colleagues. Trading with herders and horticulturalists has been sporadic among Hadza over the past century, and the overall quantity of food coming from horticulturalists varies from 5 to 10 percent. The Hadza have been exposed to settlement schemes over the past 50 years, but none of these has proven very successful. The 1990s saw a novel type of outsider intervention in the form of further habitat degradation and "ethno-tourism". Although some Hadza have spent

considerable time living in a settlement with access to maize and other agricultural foods, most continue to forage and rely on wild foods. Age estimation of the population was achieved using relative age lists, a group of individuals of known ages, and polynomial regression. Two censuses done about 15 years apart, with an accounting of all deaths during the interim, allowed Blurton Jones to construct a life table and to show that sporadic access to horticultural foods and other amenities cannot account for the mortality profile. There were roughly 750 Hadza in the study population.

https://www.gurven.anth.ucsb.edu/sites/secure.lsit.ucsb.edu.anth.d7_gurven/files/sitefiles/papers/GurvenKaplan2007pdr.pdf

3 Ache

1. Ache foragers inhabited the tropical forests of Eastern Paraguay, making first peaceful contact with outsiders in the mid-1970s, shortly before we began our study. During the past 30 years they have lived part-time on reservation settlements, returning frequently to the forest for extended time periods. Foraging-dependent Ache live mainly on mammalian game, honey and extracted palm starch, with fruits and other collected resources accounting for less than 5 per cent of the diet. Sexual division of labour is pronounced, with men foraging over 6 h daily while women care for children and transport household items, foraging less than 2 h daily. Women forage even less when married to a high-producing husband. Cooperation in all realms of food acquisition and daily life is extensive. Analyses of quantitative data on food sharing demonstrates band-wide division of game with no kin bias, and extensive, but slightly kin-biased, sharing of vegetable and invertebrate foods. Both contingent reciprocity and need-based provisioning are typical of collected foods and meat sharing at reservations. Ache demographic patterns include high fertility, long lifespans and measured positive effects on survivorship and fertility associated with the presence of some kin categories and for some age and sex classes. Women in the Ache population show the highest rates of pair-bond dissolution of any foraging group reported, yet post-reproductive women still produced children with fewer than two men, on average, in a lifetime. Hill and Hurtado (1996) present data from "the forest pe-riod" before Ache were contacted by Westerners or educated Paraguayans, and during which they lived almost entirely off hunted and gathered foods, the contact period of rampant infections and deaths, and a settlement period during which the population recovered and medical care became available. Life expectancy at birth rose from 37.1 years for females in the forest period to 45.6 in the settlement. Life expectancy at age 45 rose only from 22 years in the forest period to 24 years in the settlement.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2817285/

https://content.csbs.utah.edu/ hawkes/Blurton%20Jones%20et%20al.%202002%20AJHB.pdf

2. The Ache of Paraguay are also well known to anthropological readers. Their pre-settlement, full-time forager lifestyle was much more mobile than the life of the other populations discussed here. Small groups moved almost daily through the forest, clearing a new sleeping area each evening. Couples and their children shared a fire, but people lived in much greater proximity at these overnight camps than in a Hadza or !Kung camp. In some contrast to !Kung and Hadza, Ache men provided about 80% of the food by hunting animals of a wide variety of sizes and taxa. While !Kung are known to have practiced occasional infanticide and Hadza claim never to have heard of such a practice, Ache used to regularly kill one or more children upon the death of their father, and sometimes in other circumstances. Hill and Hurtado (1996) describe informants' interpretations of this practice. Hill and Hurtado (1996) present data from "the forest period" before Ache were contacted by Westerners or educated Paraguayans, and during which they lived almost entirely off hunted and gathered foods, the contact period of rampant infections and deaths, and a settlement period during which the population recovered and medical care became available. Life expectancy at birth rose from 37.1 years for females in the forest period to 45.6 in the settlement. Life expectancy at age 45 rose only from 22 years in the forest period to 24 years in the settlement. During the contact period, mortality rose mostly among the young and old, including old females. These authors attributed the virulence of these epidemics to lack of previous exposure to the disease organisms. The northern Ache had kept themselves isolated from their neighbors. In the forest period 5.5% of people were ¿60 years, and the population was increasing rapidly.

https://content.csbs.utah.edu/ hawkes/Blurton%20Jones%20et%20al.%202002%20AJHB.pdf

3. The Ache were full-time, mobile tropical forest hunter-gatherers until the 1970s. Kim Hill and Magdalena Hurtado (1996) separate Ache history into three periods—a pre-contact "forest" period of pure foraging with no permanent peaceful interactions with neighboring groups (before 1970), a "contact" period (1971–77) in which epidemics had a profound influence on the population, and a recent "reservation" period in which Ache live as forager-horticulturalists in relatively permanent settlements (1978–93). During this last period, the Ache have had some exposure to modern health care. The pre-contact period shows marked population increase, resulting in part from the open niche that was a direct result of high adult mortality among Paraguayan nationals during the Chaco War with Bolivia in the 1930s. No life table is published for the high-mortality contact period, during which many old and young died. At the time of study, there were roughly 570 northern Ache.

https://www.gurven.anth.ucsb.edu/sites/secure.lsit.ucsb.edu.anth.d7_gurven/files/sitefiles/papers/GurvenKaplan2007pdr.pdf

4 Machiguenga

1. Traditionally, the Machiguenga lived (and some continue to live) in mobile single-family units and small extended-family hamlets scattered throughout the tropical forests of the southeastern Peruvian Amazon, subsisting on a combination of hunting, fishing, gathering, and manioc-based swidden horticulture. Economically independent at the family level, this Arawakan-speaking people possess little social hierarchy or political complexity, and most sharing and exchange occurs within extended kin circles. Cooperation above the family level is almost unknown, except perhaps for cooperative fish poisoning. During the last 30 years, missionaries, markets, and government-administered schools have sedentized and centralized most of the Machiguenga into a number of villages in a continual process of increasing market integration. As these demographic changes have strained local game and wild food resources, the Machiguenga have gradually intensified their reliance on horticultural products, especially manioc (a starchy root crop). In an effort to buy increasingly available Western goods, many Machiguenga farmers have begun to produce cash crops (primarily coffee and cocoa), raise domesticated animals (e.g., chickens, ducks, and guinea pigs), and participate in limited wage labor (usually for logging or oil companies). Although most Machiguenga now live in small communities of about 300 people, they remain primarily a family-level society. This means that families fully produce for their own needs (food, clothing, etc.) and do not rely on institutions or other families for their social or economic welfare, although there is a constant demand for market items such as machetes, salt, sugar, and steel axes. With the exception of recent river trips to the nearest (minimum eight hour trip) towns, anonymous transactions are almost unknown. When local bilingual schools (Machiguenga-Spanish) are not in session and the incessant rains of the wet season make travel difficult, many families move away from the community to live in their distant gardens, often located two to three hours away from the village.

   https://henrich.fas.harvard.edu/sites/scholar.harvard.edu/files/henrich/files/henrich_2000.pdf

2. The Matsigenka are an Arawakan speaking people currently numbering between 10 and 12,000. They inhabit the regions of the Urubamba River and its tributaries, the Madre de Dios region, and Manu National Park in Peru.3 The Matsigenka are a “family level” society who, in the past, have lived in scattered small nuclear family residences or hamlets, subsisting on a combination of fishing, foraging, and horticulture—primarily

maize and manioc. In recent decades, however, communities have been established into permanent settlements under the direction of the Summer Institute of Linguistics (Protestant missionaries), organized around government sponsored bilingual schools and health posts. Currently, there are approximately 20 Matsigenka communities in the Lower Urubamba region. The period before communities were settled was a frightening one for the Matsigenka living in Urubamba region. During the height of the slave trade that lasted well into the 1950s, most fled with their families into the headwaters of the Kamisea River and others into the Picha and Parotori River. Still, many Matsigenka were not so fortunate. Men and women were sold in exchange for machetes and shotguns, while others, generally older people, were killed mercilessly. The Matsigenka, who have long had contact with missionaries, explorers and rubber patrons, are now facing further change and challenges as large international oil companies are exploiting gas and oil reserves in the region. In the past 40 years, planned development, including the institutionalization of Christianity, education and Western healthcare, has introduced the Matsigenka to a wide array of foreigners. Mestizos, government officials, other indigenous groups and multinational corporate personnel have all lived in their midst, challenging the Matsigenka to reframe their expectations in regard to their health and well-being in their present situation and their future goals. The pressure to change their culture and to "progress" as a group has provoked in the Matsigenka, a legitimate fear about their future, identity and culture. Developing a historical fear for outsiders, the Matsigenka have grown increasingly agitated about the chaos and uncertainty that accompany the massive cultural changes derived from new settlement patterns followed by international development projects in their region. Discussion by outsiders about the cultural conditions of the Matsigenka is marked by little effort to facilitate an authentic understanding or exchange with the indigenous population. Rather, visitors, government personnel and agents of the media promulgate a nearly universal sentiment of disdain towards the nativos or "natives", stressing the urgent need for cultural changes. The cambio (change=progress) that settlers and government representatives advocate is generally that of acculturation, echoing similar notions expressed centuries earlier by missionaries. Education is believed to be the answer to the social problems of the Matsigenka, but cultural outsiders, in formulating education for them have, instead, merely encapsulated their own values about family size, work, and lifestyle. Little exchange of values or culture seems likely for the Matsigenka, who face strong pressure to comply with the demands of economic development and the consequent social, spiritual and cultural requirements. Paradoxically, ongoing development, missionization and "eco tours" require locals to re-frame, re-historicize and, in many cases, sell cultural difference in order to obtain financial and political assistance; simultaneously, people are pushed to modernize, and thus, to relinquish cultural difference. In such uni-directional global economies, the Matsigenka are asked simultaneously to develop a marketable collec-

tive, "traditional" self, and be the victim of one's self and one's traditional practices. Multinational corporations and state governments ask indigenous people to adopt ethnocentric First World desires and empathy, while simultaneously assuming their blame for a presumed inability or unwillingness to develop.

https://www.sciencedirect.com/science/article/pii/S0277953604004563

3. The Matsigenka are an Arawakan speaking people, currently numbering between ten and twelve thousand. About 85% of their population is located in the Urubamba River and its tributaries, with the remainder in the Upper Madre de Dios and Manu River basins. Traditionally, the Matsigenka have lived in scattered nuclear family households or small hamlets, with a strong (though not exclusive) preference for cross-cousin marriage and matrilocal residence. They are primarily horticulturalists, subsisting on swidden cultivation of manioc, maize, plantains, and other crops. Hunting, fishing, and foraging are crucial sources of dietary protein. Although similar in language and culture, there is enough diversity between distinct Matsigenka communities that generalizations from just one could be misleading. The Matsigenka live in a small-scale, family level society, and value harmonious interpersonal relationships, hard work, and sharing, at least within the family and residence group. Though ebullient and raucous during periodic manioc beer parties, the Matsigenka show a certain degree of emotional restraint in sober, daily activities. The stoic emotional ethos is especially apparent during illness, injury, or after death in the family: expressions of physical and emotional pain are extremely restrained. Anger is also considered to be a dangerous, anti-social emotion. The typical Matsigenka response to social conflict is avoidance; in times of more severe social strife or political conflict (for example during the Rubber Fever atrocities), the Matsigenka have fled to remote headwater regions. Lacking organized forms of social control such as police or institutionalized punishment, enforcement of social norms and moral conduct among the Matsigenka is achieved largely through fear of the kind of vengeful spirit attacks that occur when such norms are violated. Traditionally, political and economic power rarely extended beyond the local residence group, typically a small hamlet of one to six households bound by kinship and marriage. In the past, dispersed local resident groups in the same region might be loosely integrated through trade and the mutual hosting of manioc beer drinking feasts. In certain regions and historical moments, despotic leaders known by the Quechua term kuraka ("chief") have emerged, always in response to outside agents and economic forces, including the Inca Empire, Spanish missionaries, and the Rubber Fever at the turn of the twentieth century. Especially since the late 1950s, missionary outreach programs in health, education, and evangelization have attracted formerly dispersed hamlets into more densely inhabited communities of twenty to forty households. The new settlements have greatly

changed Matsigenka society, which traditionally lacked such features of village-level social organization as communal meeting places, political hierarchy, and leaders capable of organizing communal labor. Modern Matsigenka communities have elected officials as stipulated in the Peruvian legislation governing indigenous communal land tenure. Nonetheless, elected officials have little control over the actual day-to-day affairs of families and residence units; indeed elected community presidents often complain about the difficulties of organizing communal labor projects. One senses today, in the fierce autonomy of many Matsigenka families and residence groups, an ongoing resistance to the kind of despotic power once wielded by the kurakas of the past. The crowding of family-level households and hamlets into communities at 10 to 20 times the population density has posed challenges to traditional ethos, emotion management, and impulse control. At the same time, the Matsigenka have also endured cultural imperialism, exploitation, disease, and death as a result of contact with outsiders.The intensity of the ensuing culture contact has provoked in the Matsigenka a legitimate fear about their future, identity and culture. Building upon a historical fear of bellicose outsiders,the Matsigenka have grown increasingly agitated about the chaos and uncertainty that accompany such massive cultural changes. These fears and dynamics, and the distrust with which the Matsigenka of today view the outside world, have been incorporated into their worldview and expressed in culturally mediated forms of distress. As a result, the Matsigenka say, anger and envy have become prevalent, leading to acts of vengeance employing sorcery.

5 Orma

1. Because of the arid climate, the Akamba, particularly those inhabiting the fringes and parts of the former Statelands, engage in livestock production as their major economic activity. This also applies to their neighbours, the Orma, found on the eastern side of the former Statelands in Tana River District, and the distant Somali from Garissa District. However, the other most important livelihoods are cultivation and labour migration. The Akamba and the Orma practise agropastoralism, but in different degrees; the former do agriculture more extensively and intensively and rely less on livestock for subsistence than the latter and the Somali who are more 'pure' pastoralists. Cattle, goats and (to a small extent) sheep are kept by the Akamba. In addition, the Orma and Somali keep camels. The common livestock breeds are the Boran, Zebu and their crosses and Sahiwal—a superior Zebu breed in terms of both meat and milk. The goats include the Galla, Small East African (SEA) and crosses of Galla and Boer. Sheep of Red Maasai and Dorper breeds and their crosses are kept mainly in Mutitu, Kabati, Mutomo and Yatta Divisions of Kitui District, but are rare in most parts of Mwingi District because of a strong belief that eating mutton or keeping sheep reduces one's protection against witchcraft

(DRO, Mwingi, Personal communication). In some parts of the districts, such as Central, Yatta and Kabati Divisions (Kitui) and around Mwingi Township (Mwingi District), dairy breeds are kept. These include crosses of Jersey, Sahiwal, Guernsey, Ayrshire and Friesian. Farmers are advised by extension officers to keep exotic breeds in these areas. Chicken are also kept in homesteads under a free-ranging system. In the Akamba tradition chicken rearing is a woman's activity (Assistant Chief, Katumbi, Personal communication). Donkeys are kept as beasts of burden, but the Orma and Somali keep camels both for transport and as a source of milk and (rarely) meat. Donkeys are mainly used for carrying water and, since the distances covered are long, it has become mandatory for a Mkamba young man to acquire at least one before he can be accepted by a bride-to-be (Assistant Chief, Twambui, Personal communication). Some men also keep a few beehives, producing honey for sale and for making the local brew (Karobo, in Kikamba). Livestock are the main source of food and income for the three communities. The animals (cattle and goats) provide milk, which is taken fresh and in tea or used to produce ghee. The animals are sold when cash is required to buy grains, pay fees or meet other domestic requirements. The Akamba are more exposed to the cash economy than the Orma and Somali and most raise their animals purely for the market. The traditional strategy of having large herds is no longer viable. As noted by the DRO of Mwingi, Mwingi and Kitui Districts are well served with stock markets. The markets are held weekly, and prices depend on supply and demand; they tend to be low in January when livestock are sold to raise money for school fees and during droughts or dry seasons when pastures are scarce and owners are forced to sell, thereby creating a glut. The market system for livestock is also a means through which heifers and young cows circulate from household to household. Nowadays, both the Akamba and Orma cattle owners invest their cattle wealth in some form of non-farm activities such as local stores and trade in livestock. Some have organised themselves into self-help groups (SHGs) that engage in trading in cattle and goats and other non-livestock related activities. These are latterday logical developments in pastoral societies, because 'cattle capital' herded in diminishing rangelands and harsh conditions carries greater risks than investments in enterprises independent of these factors. Goats are normally sold for requirements that do not need large sums of money while cattle are sold to meet large expenses. Livestock also serve other functions; they are used as bride price and oxen are put to the plough. Goats give birth twice a year and twining is common. Sheep reproduce at a lower rate than goats but faster than cattle.

6 other data sources - may search profiles of different tribes (Christian orgs)

1. https://en.etnopedia.org/wiki/index.php/Main_Page
2. https://www.peoplegroups.org/Default.aspx
3. https://joshuaproject.net/