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Cash for Cashews: Does It Add Up?

Margaret Buckner

Introduction

International entities the world over are striving to “develop” poor countries by encouraging people to grow cash crops for export, thus bringing them into the global economy. GDP in many countries has increased, but are villagers better off? What are the true economic, social, and environmental costs of cash crops? Though economists measure the revenues that a crop like cashews can bring to a country, the effects of the crop’s exponential growth in villages have rarely been examined. “Changes induced by the cashew boom at social and environmental levels are yet to be analyzed and understood” (Catarino et al. 2015). This chapter attempts to do that by examining the effects of cashew production in a Manjako village in northwest Guinea Bissau; following in the footsteps of Lundy (2012) who studied the Nalu in the southern part of the country, and Temudo and Abrantes (2014) who focused on the Fula and Mandinga in the central and western regions.

Over the last twenty-five yearsⁱ, I have witnessed the rise of cashew production and the corresponding loss of rice fields—quite visible on Google Earth—in Caio, northwestern Guinea Bissau. The village has visibly changed from a relatively egalitarian population to one with haves and have-nots. Since young men have other options for earning cash and many no longer see their future as rice farmers, they no longer depend on the lineage elders for parcels of rice fields to cultivate, which leads to the erosion of lineage structure.

Women, in particular, are affected, since they have fewer options to earn wages than men do. Religious practices are also being transformed, since unequal opportunity and resources lead to more accusations of spiritual wrong-doing and costlier compensations. Bush is being replaced by cashew orchards, which is having dire environmental consequences.

Cashews, native to Brazil, were introduced in Guinea Bissau by the Portuguese colonial government. “Sarmiento Rodrigues...appointed Governor of Guinea in 1945...urged diversification of exports because of the vulnerability of rubber, palm oil and groundnuts to world competition. ... Each post was to plant ten hectares of cashew and other fruit trees every year” (Galli and Jones 1987:35; see also Temudo and Abrante 2014; Catarino et al.. 2015). But it was not until the 1980s and 1990s that cashew production in Guinea Bissau really took off (Figure 1), with the help of international “aid” agencies. For example, “[t]he United States Government, through its Agency for International Development (USAID), is investing a further \$300,000 in Global Development Alliance (GDA) funding to work with the private sector to bolster Guinea-Bissau’s cashew production through training in quality control and marketing” (USAID 2005). The crop now provides the huge majority of state revenues. According to the Guinea Bissau Minister of Economy and Finance, "the cashew campaign is the main source of income of our farmers and the main export commodity of Guinea-Bissau, and about 90 percent of our exports are cashew nuts tremendously weighting in our GDP" (UNIOGBIS 2016).

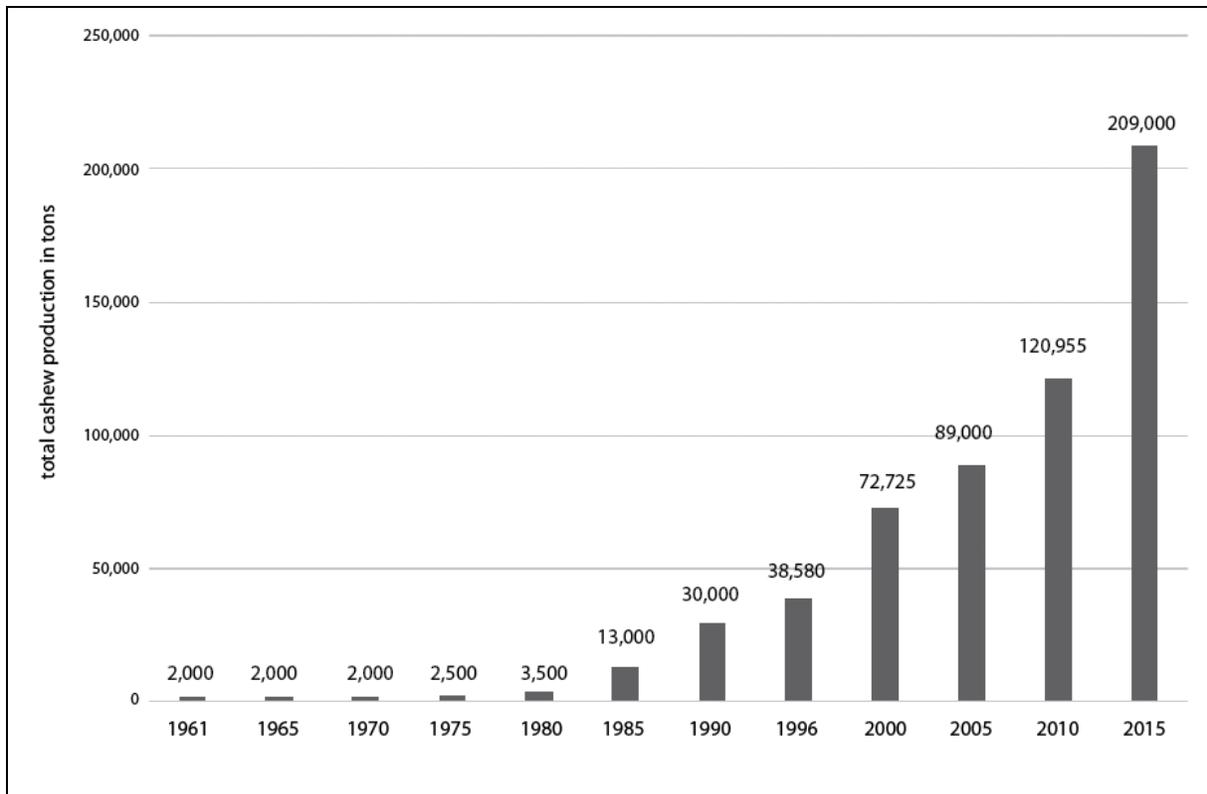


Figure 1. Production of cashews (with shells) in Guinea Bissau in tons (source FAO)

Rice Farming

The approximately 9,000 inhabitants of the Manjako kingdom of Caio, in the Cacheu region in northwestern Guinea Bissau, live along a four-mile stretch that includes a central area where administrative offices and market are located and homesteads next to the rice fields that follow the coastal mangroves.

The coastal area of West Africa from the Gambia down to Sierra Leone is edged with mangroves pierced with tidal inlets that meander inland for miles; saltwater surges far up these estuaries. Rivers flow inland at high tide then reverse flow as the tide goes out. Over the centuries, the peoples living along the mangrove belt have developed an extremely productive system of wet rice cultivation (Pélissier 1966, Linares 1992). Dikes are built

around broad swaths of mangrove to hold back ocean water; they must be high enough and strong enough to withstand high tides. During the rainy season, the dikes hold in the rainwater, which floods the fields and enriches the soil with organic matter it picks up along the way. The mangrove is thus converted into very productive rice fields. However, the work is very labor intensive.

Over the last several hundred years, the cohesive matrilineal corporate groups that characterize Manjako social organization have ensured rotating land tenure and the collective labor necessary for successful rice-farming in a cashless economy. The Manjako of Caio belong to five matrilineal clans, each of which has three to ten subclans. Each subclan has a residential courtⁱⁱ, which controls rice fields and also large areas of mangrove, which is harvested for firewood and seafood. When the headman of a matrilineal court dies, his successor is chosen from among his matrilineal relatives, usually a younger brother (of the same mother) or a maternal nephew. The residential system is semi-harmonic (Dugast 1995:122); while the Manjako of Caio are matrilineal, residence is patrilocal and virilocal: men live in their fathers' courts unless and until they inherit the headmanship of another matrilineal court. So a court is made up of the current headman and his descendants, as well as the children, grandchildren, and great-grandchildren of past headmen. All dependents of a court—whether male or female, whether residents or not, whether belonging to the subclan or not—are entitled to the use of the court's rice fields; exactly who gets which parcel is ultimately decided by the current headman.

Outer dikes that protect the rice fields from seawater are in constant need of upkeep and new dikes must occasionally be built. Dike work is organized by headmen who have the authority to call on their male dependents for such labor (Figure 2). Different sections of outer dikes are under the responsibility of different headmen. If one headman lets his

section of the dike erode, an entire rice field with sections belonging to several courts can be flooded and ruined.



Figure 2. Men building new dike

The division of labor for rice work is along gender lines and relatively even; the work is almost always collective. Men, besides building and maintaining dikes, also plow the rice nurseries and the fields using a specialized, long-handled fulcrum shovel with a flat, narrow blade to turn the soil into furrows. Women transplant the rice seedlings from the nursery to the fields, weed, harvest, thresh, and carry the rice to huge granaries where it is stored for year-round consumption (Figure 3). Women's work may be less intensive but it is long and exhausting, especially under the hot sun. Women and girls may walk miles to and from the rice field almost daily; at harvest time they are loaded down with food and water on the way out and huge bags of rice on the way home.

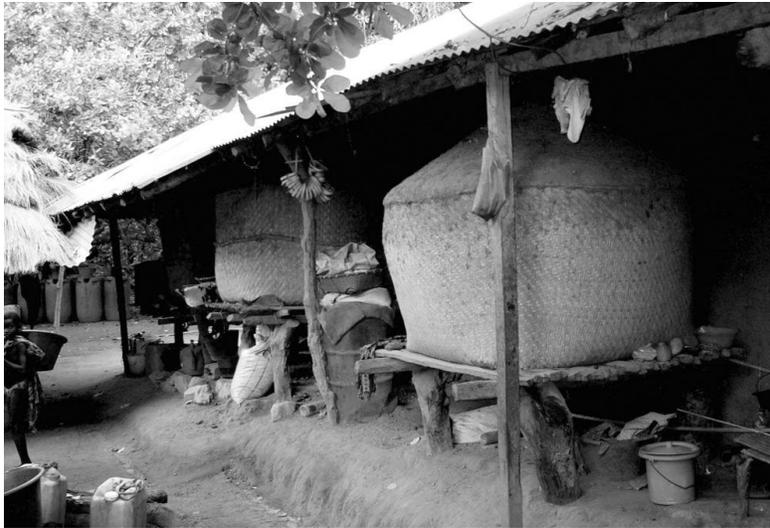


Figure 3. Rice granaries

Both men and women have rice granaries. The granary of the male household head is the largest, since women usually contribute to their husband's or father's granary; his granary is generally used to feed the household. But women, including widows, also have their own stores that can be quite large and that they use for their own children and special events. Rice can also be “traded for salt, storage baskets, peanuts, potatoes, manioc and fish” (Constantine 2005:31)

Besides rice, people have long cultivated other foods in upland fields or gardens bordering the wet rice fields, including upland rice, sweet potatoes, peanuts, beans, okra, squash, tomatoes, and several kinds of greens. Several kinds of fruit are grown locally, including banana, mango, papaya, orange, and lime; there are also several species of native trees that produce edible fruit, such as baobab. Oil palms provide oil for cooking, sauces, and lamps (another labor-intensive task for women). Villagers also keep livestock, including cows, pigs, goats, chickens, ducks, and guinea fowl; all but the latter two are generally used only for ceremonial purposes. However, ceremonies are frequent, so eating

meat is not a rare occurrence. Women and youngsters also harvest clams, oysters, shellfish and small fish from the mangrove. Small game is still hunted locally, though it has become very sparse, and honey is sometimes collected. Village diet is still so good that “students [sent to live with extended family in Bissau] say life is better in the rural areas, where a person eats three meals per day as opposed to one and where seasonal food is freely exchanged” (Constantine 2005:117).

Even in the 1990s, villages on the outskirts of Caio still had a virtually cashless economy, except for a few items sold in stores, such as candles, batteries, matches, laundry soap. People produced a variety of food, raised livestock, collected fish and shellfish in the mangrove, wild fruits, small game, and honey. They built houses, furniture, and household items out of local wood and plant fiber. They made their own soap and salt, and made lamps out of palm oil. Potters still make cooking pots, and women weave mats and baskets. Older women still know how to spin cotton into thread for weaving.

Food, homemade household items (such as brooms, seats, mats), and services were—and in some places still are—not for sale, though they can be bartered or traded. Nor were—are—animals, which are always reserved for a specific ritual (see Journet-Diallo 2007 and Constantine 2005). This tradition continues to a large extent, and in many villages it is still difficult to buy cows, pigs, or chickens, though they are present everywhere.

Two local indigenous products, however, have long been sold as commodities: palm wine, sold fresh locally, and palm oil, sold in market towns. Palm wine is harvested from palm trees individually owned by men and passed down to their sons or other male relatives. Except during the rainy season, lads scale the palms twice a day and collect the cool, fresh, fermented wine in recycled liquor bottles in the early morning; it is usually distributed or sold by mid-morning (it goes flat quickly and doesn’t store well). Women

often act as middlemen, keeping track of orders and sales. Because women make their own palm oil, it is rarely sold locally, but instead, surpluses are sold in market towns far from the coastal areas where palm-oil palms are abundantⁱⁱⁱ.

Cashew Production

When I first arrived in Caio in 1991, though there were already many large cashew orchards, most of the land between the villages and the rice fields and between villages was bush. But since then, virtually all land between and around residential compounds has been planted with cashews. Land that had been used to grow food or was a habitat for native plant and animal species has now been turned into cashew orchards.

Local people still remember government agents coming to the Caio with cashew seeds. One man said that cashews were first planted when, after independence, the government, through village committees, gave cashew seeds to people to plant. After that, it was up to each grower to clear more fields and plant more trees, until finally *mkaju a cas breng*, “cashews have chased away the bush.” Another man agreed, and added that the state also gave out peanuts. After the first year, it was up to each individual to continue growing the cashews or peanuts. He said, as others have, that cashews help with expenses when there isn’t enough rice.

Cashew trees, native to Brazil, start producing fruit after three years; full production is reached by the tenth year. Trees continue to bear until they’re about 30 years old. They produce soft, juicy apples ranging in color from pale yellow to dark red. The edible kernel grows inside a hard shell and hangs from the apple (Figure 4). The shells are very hard and difficult to remove from the nut meat. Just inside the outer shell is a coating of resin that is

toxic and spatters when heated. Cashew kernels can be removed from the shells locally, but it is a very painstaking and dangerous process. The nuts still in their shells are heated on a sheet of metal over an open fire until they burn at very hot temperatures, spitting boiling resin and spewing noxious fumes; then the shells are cracked open one by one with a rock or hammer and the kernel is removed. Because of the difficulty involved in hulling the nut safely, the huge majority of nuts are exported for industrial processing.



Figure 4. Cashew apples

Women, after separating the nut from the apple in the orchard, carry the nuts to the homesteads and pour them into 50-kilo sacks. The bags of nuts are exchanged for imported rice and/or for cash. Flatbed trucks arrive at each homestead for the exchange; nuts are then transported to the capital, where they are exported for shelling. (There is a single cashew processing station in the country, in Quinhamel, and it is not always in working condition). The exchange rate varies depending on the market prices of cashews and of rice and on the phase of the cashew season. In the years I was present, people traded 2 kilos of rice per kilo of cashews at the beginning of the season. In the middle of the season, it was 1 kilo of rice

per kilo of cashews. By the end of the season, it was 1 kilo of rice for 2 kilos of cashews. In 2013, it was 1 kilo of rice for 3 of cashews.

The juice is processed locally. Women press the fruit by pressing it in “canoas”—literally, canoes—with a hole at one end for the juice to funnel out into containers (Figure 5). The juice is then left to ferment to make “cashew wine” or is distilled into alcohol referred to locally as *cana*. Cashew wine is not appropriate for ceremonies at spirit or ancestor shrines: “Newer products like cashew wine, red wine, and beer are unsuitable for this purpose” (Constantine 2012:42). However, *cana* is used at ceremonies, since it is a hard liquor equivalent to rum. Havik (1995:31-32) has described how *cana* is also used to pay work groups to work in the rice fields.



Figure 5. Women juicing cashew apples

The division of labor for cashew work is lopsided. Men plant—and therefore own—the trees. Once the trees are planted, there is little for the men to do except occasional pruning. On the other hand, during cashew harvest (the “campanha”), women and girls spend long hours gathering and processing cashew apples. It’s a second harvest season in March-May, similar to the rice harvest in November-December. Though not as physically demanding as threshing, winnowing, and carrying rice, harvesting cashews includes ceaseless bending to pick up individual cashew apples from the ground, separating the nuts from the apples, then crushing the apples to make juice. And women are already overworked: “In a rough survey of how women spent their day in the area it was found that a minimum of six hours was spent in housework (mainly meal preparation, while another six hours were spent in the fields. Women stated that they had no leisure time and very little time for any other activities (direct observation by J. Ki-Zerbo and R. Galli, November 1984)” (Galli and Jones 1987:144).

In recent years, for reasons that will be discussed below, many families run out of rice before the end of the year and use their profits from cashews to buy rice from Asia. So, basically, instead of growing their own rice (and they used to have a surplus), people now grow cashews in exchange for rice from Thailand.

Trade-offs

Each of these two economic activities—rice farming and cashew farming—has its own foundations, entailments, and consequences. Rice cultivation is both land intensive and labor intensive. Rice fields don’t belong to individuals but to corporate matrilineages. The division of labor is fairly even: men build and maintain dikes, prepare the nurseries,

and plow the rice fields. Women transplant the seedlings from the nurseries to the fields, harvest, thresh, winnow, and carry the grain to the granaries. Rice is eaten in family groups. Though women contribute rice to the granaries of their male relatives, they also have their own rows of rice paddies, and rice from those paddies goes into the women’s personal granaries. Rice farming, supplemented by seafood and other cultivated crops (such as peanuts, squash, and beans), offers food security. Headmen, because they control the rice fields on which everyone depends, have the authority needed to maintain social stability.

Cashew trees are individually owned. The division of labor is uneven: men clear land and plant the trees; women collect the fallen apples, separate the nuts from the fruit, carry the nuts to the house. Women also juice the apples to make cashew wine. Cashew money goes the “owner” of the tree (usually a man), though he may share it with the women who do the work and use it on his family. Money is individual, goes into pockets and is used to purchase food and other commodities. Because wealth now comes from cashews, young men no longer depend on elders for access to rice fields, elders’ authority has diminished, and some are unable to command the necessary labor to keep up the rice fields—in particular, the dikes. Since the dikes are no longer well maintained and rice fields may not be plowed, women cannot fill their granaries and are increasingly dependent on men and on cashew profits. Rather than a diet of locally grown food, people now eat a lot of processed, store-bought food; children now have lots of cavities, and the chronic diseases of developed countries (diabetes, hypertension, obesity) loom. The cashew economy brings a high risk of food insecurity.

The differences between rice and cashew farming are summarized in Table 1:

	<i>rice</i>	<i>cashews</i>
<i>control of resources</i>	collective	private

<i>gender division of labor</i>	fairly even	lopsided
<i>product</i>	eaten, distributed	sold, traded
<i>lineage authority</i>	strong	weak
<i>women's economic status</i>	high	low
<i>diet</i>	good	poor
<i>food security</i>	high	low
<i>environment</i>	friendly	harmful

Table 1. Rice vs. cashews.

Cashew farming does offer several advantages. Cashew trees are said to grow in sandy soil where other trees will not. Cashew production is not as labor intensive as rice farming—especially for the men, who, after planting the trees, have virtually no work to do. Most importantly, though, it brings in cash from at least three sources: the sale of the nuts, the sale of cashew wine and *cana*, and the wages for young men, who are hired by cashew traders to load and unload 50-kilo sacks of cashews and rice onto and off of the large flat-bed trucks that reach even far-flung homesteads. Furthermore, enterprising local men who manage to put together enough capital can invest in a truck and become traders themselves. The extra cash from cashews is used to purchase common store-bought items such as batteries, cloth, and soap. Temudo and Abrantes relate that cashew farmers in other regions of the country “were able to buy tin roofs for their houses (a major goal for farmers), bicycles and motorcycles, and even to discontinue or drastically reduce cereal production and, in the case of Fula and Mandinga farmers, to increase the use of wage labor (mainly with migrant workers from neighboring Guinea)” (Temudo and Abrantes 2014:226). And, as was stated earlier, the revenue from cashew exports on the national level finances the state government.

Cashews may be particularly advantageous to women, especially as their economic cornerstone—rice—becomes unreliable due to dilapidated dikes and abandoned rice fields.

Because cashew orchards are individually owned, women can inherit them from their fathers, brothers, or husbands; they then keep all profits from the sale of nuts for themselves. Cashew apple “wine” and cashew *cana* are women’s home industries from which they keep the profit. Havik (1995), citing Cornelius Hugo and Cardoso (1990) and van der Drift (1990), emphasizes the additional economic power the sale of *cana* brings women, who can also use the profits to hire male work teams to maintain rice fields.

On the other hand, cashews bring many kinds of problems, ranging from economic to environmental to social. Monoculture is inherently risky: a disease could wipe out the cashew crop and would leave the country dependent on food handouts. The life span of the trees is 50-60 years, 30 of which are fruit-bearing. Trees planted in the 80s and 90s will soon stop bearing fruit and the land will be covered with dead, rotting trees—in fact, in some orchards it already is, both in Caio and elsewhere (see Temudo and Abrantes 2014). Increased labor and investment will be needed to replant the orchards. Horticultural plots, that were rotated and lay fallow, are gone.

Environmental threats are real. As already stated, cashew trees grow well in sandy soil; however, they deplete that soil. Local people have already noted, with apprehension, that little grows under the cashew trees. Biodiversity has disappeared. Bush is gone, Medicinal plants are disappearing. Animal species are disappearing; for example, in the 1990s I often saw five-foot tall marabout storks in the bush near the village, but nevermore. Hunting is virtually non-existent. Many of the NGOs and World Bank agencies are encouraging the use of pesticides to increase the yield, with unknown effects. Non-biodegradable trash is accumulating, with no slowing in sight. Cheap plastic and paper products are now being bought and trashed at astonishing rates. Used and broken items are

tossed anywhere. There is no traditional way of dealing with trash because there never used to be any; now it's a problem.

The cash economy brings about wealth disparity, haves vs. have-nots. The disparity causes envy, jealousy, and ill will, which lead to accusations of using spiritual means to harm others. Such feelings came to a head in 2004 and the women of Caio brought a new spirit shrine specifically to counteract the alleged ill will of men towards the welfare of women and children (children belong to the wife's lineage, not the man's, so a man's children are not his heirs). Furthermore, with the growing influx of cash, the costs of ceremonies have skyrocketed. Rather than a single cow for planting an ancestor post, three or four cows must be killed, not to mention enormous amounts of alcohol and food. Much of the cost of ceremonies is paid for with cashew money, but returning migrants are also hard hit. If they don't pay tribute to local spirits and ancestors, they and their families are at risk of illness and death. Odile Journet-Diallo (2007) gives a detailed account of inflation in ceremonial rituals among the Diola, a neighboring ethnic group. Finally, Lundy (2012) has pointed out an increase in alcoholism corresponding to the increased availability of cashew wine and *cana*.

Turnaround?

In the last few years, I've noticed a shift occurring in many households. Discourse is changing. People are saying the city isn't such a good place to live, that they eat better in the village. They've realized that they can't count on high prices for cashews and low prices for imported rice. They also miss the variety of foods they once had.

Rather than vocally contesting the growing dependence on cashews vs. the traditional dependence on rice, they are “voting with their hoes.” In 2015, I discovered several acres of bush had been cleared (Figure 6) in order to grow upland rice, which used to be grown in several areas of Caio before cashew orchards spread across the land. Upland rice, which depends solely on rainwater, is a lot of work and doesn’t produce as much as paddy rice, but it doesn’t require dikes so can be grown by small family groups. Everyone clears the bush; men turn the soil; women sow, weed, and harvest. A young man I met at the new field explained that they’d cleared the whole section that year for the first time since 1996. They’d planted upland rice, but he said that the next year they might plant peanuts.

The next year they planted a lot more than rice and peanuts. In 2017, women in one household proudly showed me the crops they’d grown in the new upland field the previous year: rice, peanuts, corn, sweet potatoes, cucumbers, okra, beans (*u-fõ*) and roselle (*hibiscus sabdariffa L.*). They ground the corn into a fine meal to make porridge for young children; the rest of the crops were eaten by the family or, if there was a surplus, traded or sold. They showed me the seeds of these plants they’d saved to plant the following year. In fact, though male relatives always turn the soil, the clearing and cultivation of the upland field seem to have been directed by enterprising women ranging in age from 30 to 60 years.

Also in 2017, I discovered that a dike was being built far out into the mangroves in order to recuperate rice fields that had been abandoned and had reverted back to impenetrable mangrove (Figure 6). A team of men from one of the local homesteads, under the leadership of the household head, were putting in long hours of sweaty, muddy, backbreaking work (Figure 2) to rebuild the dike where it had once stood and thus recuperate rice fields belonging to the matrilineal court. The investment in time and labor

would be enormous; once the dike is finished, the mangrove itself will be cleared and the turned into furrowed paddies. The dike will keep out the seawater and hold in rainwater, so that after five or six years, the field will be ready for planting. So, within spitting distance of abandoned rice fields, at least one old rice field is being recuperated.

Another optimistic sign of economic and social perseverance is that young men who went to Bissau or Senegal seeking money-earning jobs have returned with wives and are joining in the rice work and raising families.

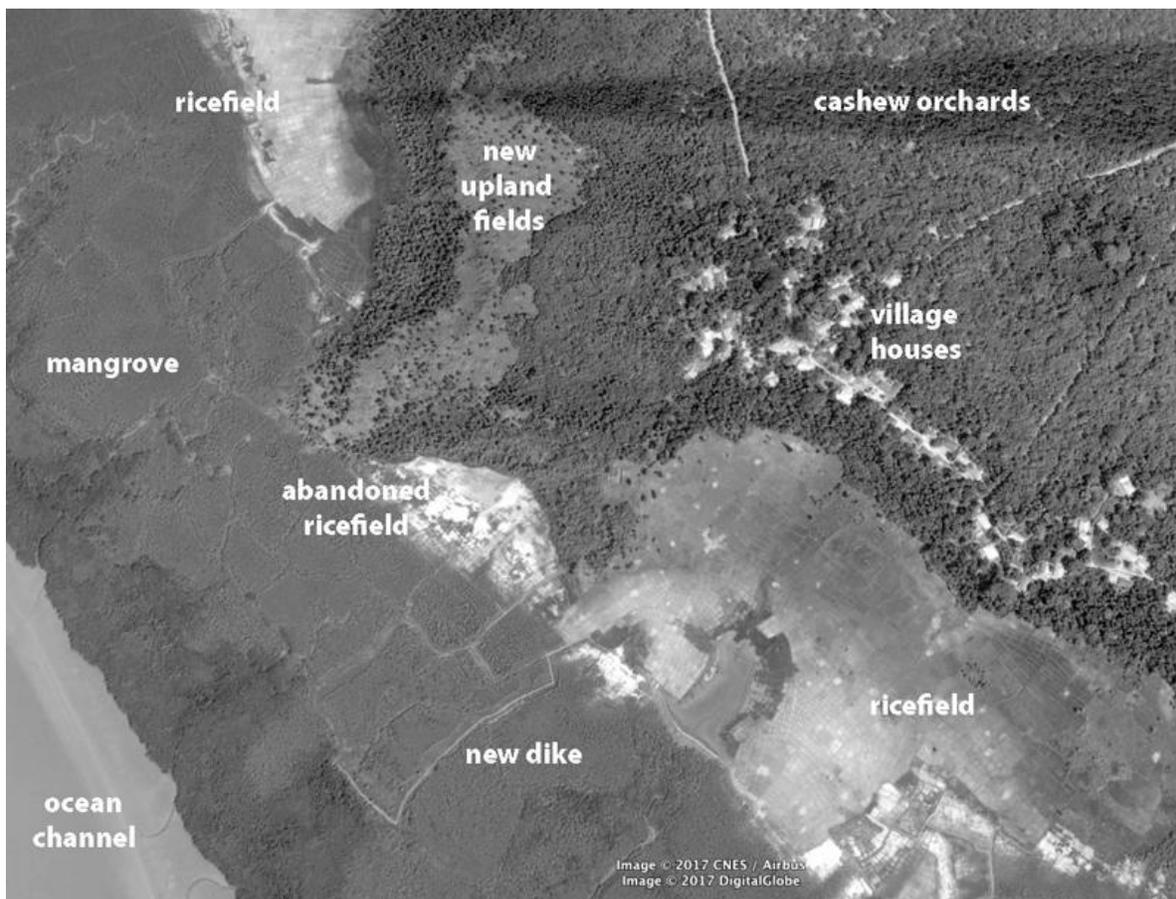


Figure 6. New dike and new upland fields

Broader reflections

In addition to showing some of the effects of cashew production and how people in Caio are faring, this case study invites broader reflections on several questions. Who profits from “development”? Does growing cash crops necessarily replace traditional farming, or can people continue to do both? Finally, why do some households and villages farm rice successfully while others don’t?

There are many places in the world where people produce enough food to sustain themselves quite well yet they do not export a surplus or a cash crop. So who profits from an export economy? Walter Rodney was one of the first to say that it was not small-scale farmers, but rather colonial governments. Yet even today, state governments continue to push economic development—usually in the form of cash crops—in order to support themselves.

Many authors writing specifically about Guinea Bissau have agreed. For example, “an increase in agricultural production is necessary to help feed an urban workforce, provide commodities to export in exchange for ‘hard’ currency, supply raw materials for industry, and finance the institutions and personnel of the government” (Galli and Jones 1987:187). From the beginning, the goal was to amass revenues to support the state. “The search for revenues to finance the state apparatus has been the dominant economic concern of state policy (*ibid*:189).

Forrest goes further, proposing that a strong state government and strong, self-reliant villages are at odds: “The combination of a strong rural civil society, a national administration that was politically fragile and disconnected from the major social formations in the rural areas, and a vibrant informal economic sector all diminished the

ability of the state to consolidate its power, to tax its populace, and to implement macro level policies on a national basis (Forrest 2003: 227). In other words, Forrest is saying that the State is weak *because* villages are strong. Perhaps not coincidentally, at the ECAS 2014 conference in Paris, one panel (215) was titled “Economic failure, political success?” Perhaps the question should be reversed: economic success, political failure?

While the World Bank, USAID, and most other agencies continue to push cashew production, at least some researchers have pointed out the danger of overdependence on cashews. For example, “Cashews represent 90 percent of the country’s exports and the principal source of income in rural areas. . . . [O]ver the last three decades, the production of rice has significantly decreased in favor of cashew farming. This situation represents a threat to food security” (Boubacar-Sid et al. 2007:77). Unfortunately, this warning seems to be going unheeded as cashew production continues to increase.

The most commonly stated goal of development programs is to reduce poverty. But how poverty is defined and measured is problematic. Most scales are based on GDP or on per capita GDP. But these figures are based only on countable consumption and exports, not on food grown locally that stays local, that goes from field to kitchen, or from family to family, without being weighed or measured. A local rice farmer told me in 2016, “we have enough rice for three years,” not “we have 250 kilos of rice” or “we have \$300 worth of rice.” Because economists necessarily count only countables (tons, gallons, dollars), people in subsistence or informal economies—in which cash may not play a role—are often labeled as poor. For example, “People are poor because they lack productivity. They lack productivity because they don’t have the tools to become more productive. Those tools include the basic inputs to raise farm yields above subsistence levels” (Shinkle 2008). Yet Caio rice farmers are among the most productive in the world. They have a sustainable,

environmentally-friendly economic system that offers food security. They also have an incredibly tight-knit social system, upheld by their religious practices, that leaves no one out. This situation exemplifies Hobart's observation that, in Western discourse, there is often "the presumption of the priority of technology over social considerations" (Hobart 1997:3).

In many areas of Guinea Bissau, including Caio, rice production is reportedly diminishing (see Boubacar-Sid et al., *opt cit.*). "Even those households [in Caio] for whom wetland cultivation was their most productive source of rice did not have enough for the coming year. [...] Everyone supplemented his or her rice store through the cashew harvest, traded some or all of the nuts for imported rice, using this before opening stores of cultivated rice" (Constantine 2012:192). Scholars have suggested various reasons for diminished rice production. For a neighboring Manjako kingdom, Gable (1990) emphasized male outmigration, which has resulted in a labor shortage. In Caio, a high rate of male outmigration also likely contributes to falling rice production.

Davidson (2012:18), for her part, attributes insufficient rice among the Diola (rice-growers just north of the Manjako) to climate change, including declining rainfall and desertification. However, although rainfall does vary by year and by decade, data shows fairly consistent precipitation levels in the area. A dataset produced by the Climatic Research Unit (CRU) of University of East Anglia (UEA) published on the World Bank website shows that since several relatively dry years in the 1980s, rainfall averages are back within the normal range, with year-to-year variation. Moreover, Bacci, Diop and Pasqui state that for the middle and upper Casamance (southern Senegal, just north of Guinea Bissau), there has been "a tendency over the last years of *an increase* in temperature, in potential evapotranspiration, and *in precipitation*" (Bacci, Diop and Pasqui 2013:12-13, my

translation and my emphasis). In Caio, some people say there's not enough rain while others say there's plenty. Lack of rainfall would affect all households equally, yet some households have had bumper rice crops in recent years.

So the question remains as to why some villages in the rice belt—and some households within those villages—are not as productive as others. In Caio, where Constantine observed a lack of rice, in many households rice is plentiful. Villages are often seen as homogenous; yet each family, each compound is made up of members of different personalities, networks, ambitions, values, skills, and risk tolerance. For some, the effort of clearing mangrove is worth the food security; for others, cash from cashews is the way forward. In some households, a single enterprising individual will clear and fence a new garden plot. Some charismatic individuals—especially in strong matrilineal courts—entice others to join him or her in new endeavors, such as clearing a new upland field or rebuilding dikes to recuperate rice paddies. In other villages and households, especially when men have emigrated in high numbers (see Gable 1990), it is less likely that families can or will maintain their rice fields and resist the trend to depend on cashew profits for their livelihood.

Can Caio residents grow both rice and cashews? The answer could be “yes.” Rice and cashews do not compete for land. The Manjako have a figurative and literal attachment to the land, which binds people together. Rice fields cannot be bought and sold; they are in the hands of corporate groups, so rice paddies will always be available for individuals based on their kin group and compound of birth. Cashews, on the other hand, grow in upland areas that used to be unclaimed bush. The skills and knowledge necessary to grow rice are being transmitted; children learn by doing from a very young age. There is a very low level of state interaction, which could augur well for village economic independence.

Finally, many people—especially women—are using cash from cashews (nuts, wine, and *cana*) not only to hire rice field laborers but also to dehusk rice by machine rather than by pounding it with mortar and pestle. In other words, they are using cashew money to increase their rice production.

On the other hand, the rise of cashew farming has indeed coincided with reduced rice output, likely because of shortage of labor. The kind of rice farming practiced in coastal Guinea Bissau requires intensive, collective labor, particularly by the men to build and maintain dikes and plow the fields. But men now have other options, so dikes are falling into ruin and entire fields are being flooded. When one family's dikes fail, other families are ruined. Women are dependent on men for the upkeep of the dikes, preparing and sowing the nurseries, and plowing the paddies in preparation for transplanting the rice. But this is still a situation of selling a cash crop to acquire more rice, which has historically been produced in huge surpluses. Moreover, women already have the annual rice season and harvest to deal with, on top of housework and childcare; as noted above, they have very little free time. A second, cashew harvest is physically and socially overwhelming.

Villagers are often said to be mired in traditions and cultures that keep them from “developing.” “Whatever the rationale, non-western societies have been widely represented as static, passive and incapable of the progress based on rational government and economic activity which the West alone could provide” (Hobart 1993:2). Like farmers in Mali described by Wooten, Caio residents, rather than being stuck in a monolithic traditional past, “are actually forward-looking individuals, individuals who actively negotiate new circumstances, improvising solutions to new challenges by drawing on and restructuring or rejecting established social, cultural, and economic patterns (Wooten 1997:xvii). They are

weighing their options, taking advantage of opportunities, old and new, and deciding their own economic activities.

All over the world, so-called developed countries have sacrificed biodiversity for “amber waves of grain”; forests and prairies have been cleared and plowed at the expense of wildlife and clean air and water. It could seem hypocritical to sound the alarm that the same is now happening in Africa. But much is at stake, especially if the reason for the destruction of natural bush is revenues for state cadres and profits for international traders. State and international agencies that encourage cash crops at the expense of sustainable subsistence activities should reconsider their “development” programs, especially when, as noted above, they lead to both food insecurity and threat to the environment. Thankfully, in Caio, as elsewhere, many have realized that the old, reliable way can be better and that they can live off their own land through their own hard work.

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ⁱ I worked for the Medical Research Council from 1991 to 1993 on an interdisciplinary HIV/AIDS research project based in Caio, and since then have returned to the village every two or three years for a period of one to five months of ethnographic research.

ⁱⁱ Besides matrilineal courts, there are also newer patrilineal homesteads governed by the eldest male resident; these homesteads also control rice fields that were granted to them by matrilineal headmen.

ⁱⁱⁱ The kingdom is renowned for its palm wine. Its very name, Caio, comes from *kayu*, to pierce, referring to the way young men pierce the palm to harvest the wine.