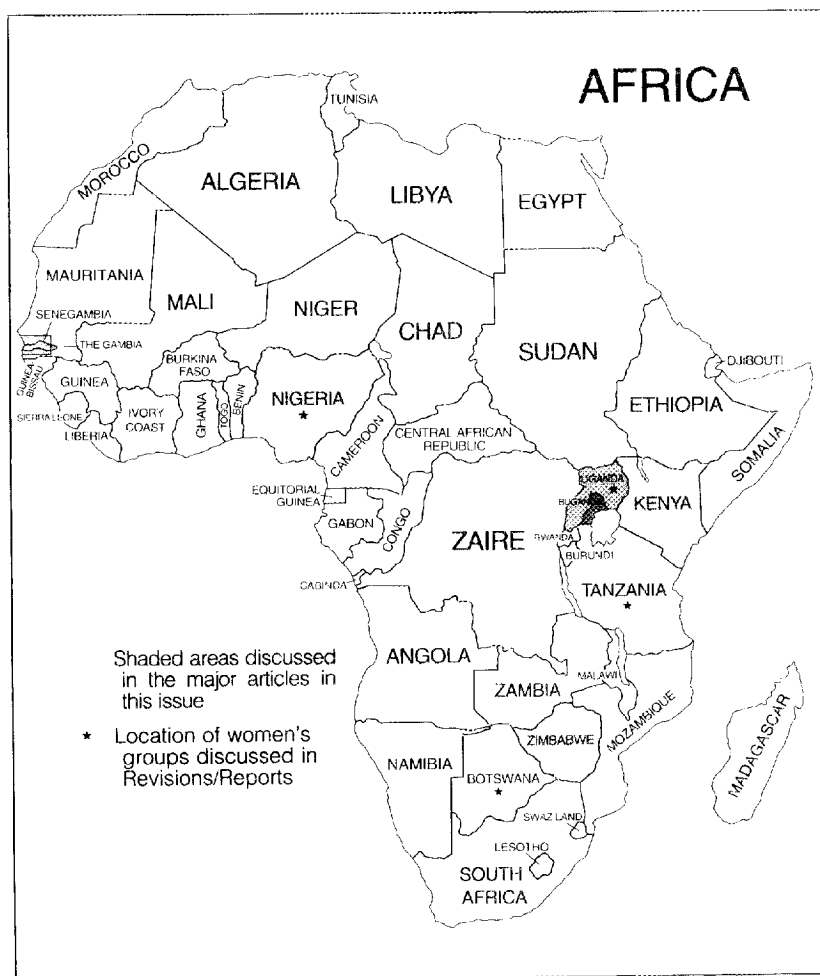
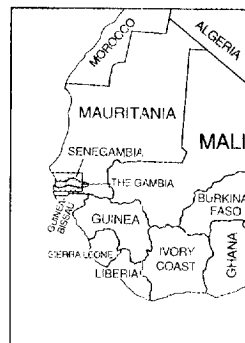


MAP



DISCIPLINING WOMEN? RICE, MECHANIZATION, AND THE EVOLUTION OF MANDINKA GENDER RELATIONS IN SENEGAMBIA

JUDITH CARNEY AND MICHAEL WATTS



Agricultural intensification is perhaps the single most important process, ecologically and economically, occurring in Africa today; yet it is poorly described and understood. [JANE GUYER]

The investigation of women's role in the process of production . . . must include an account of familial authority relations according to which this work is organised, and the property relations which this authority structure realises and maintains. [URSULA SHARMA]

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In her pivotal book, *Women's Role in Economic Development*, Ester Boserup emphasized the fundamental ways in which women's work varied cross-culturally. Drawing largely on materials derived from African agriculture, she was the first to note the prevalence in Africa of female farming systems in which "food production is taken care of by women with little help from men."¹ The centrality of women in African agrarian production and food production systems in a culture distinguished by a rigid sexual division of labor was, for Boserup, linked directly to population density, landholding systems, and technology. Boserup also was concerned with identifying the relations between female farming and agricultural intensification. Driven by population growth and the attendant shortening of fallow periods, the trajectories of agrarian change in African agriculture were typically associated with the withdrawal of women from production. In annual cropping systems, for example, the number of women actively engaged in agriculture decreased although the number of hours worked by women still engaged in on-farm production might remain stable or actually increase in absolute terms. Whatever the limitations of Boserup's initial formulation, her focus on the form and character of agricultural intensification strikes to the core of contemporary ecological and economic change in African agriculture.²

In this paper we detail a 150-year process of agrarian change in a peasant society that has experienced repeated efforts to intensify the labor process. Our objective is to take on the problematic task of "trac[ing] subtle and accumulative changes in a sphere as intimate as domestic relations."³ In our view, agricultural intensification is about getting people to work harder, a process that is social and gendered (getting *some* people to work harder than others) and that is typically coercive and conflictual. The manner in which labor intensification is negotiated and struggled over—that is to say, how

¹ Ester Boserup, *Women's Role in Economic Development* (London: Allen & Unwin, 1970), 16.

² See Nancy Folbre, "Hearts and Spades: Paradigms of Household Economics," *World Development* 14, no. 2 (1986): 245–56; Jane Guyer, "Intrahousehold Processes and Farming Systems Research," in *Understanding Africa's Rural Households and Farming Systems*, ed. Joyce Moock (Boulder, Colo.: Westview, 1986), 92–104; Henrietta Moore, *Feminism and Anthropology* (Cambridge: Polity, 1988); and Uma Lele and Steven Stone, *Population Pressure, the Environment and Agricultural Intensification: Variations on the Boserup Hypothesis*, Managing Agricultural Development in Africa (MADIA), Discussion Paper no. 4 (Washington, D.C.: World Bank, 1989).

³ Jane Guyer, "Dynamic Approaches to Domestic Budgeting," in *A Home Divided*, ed. Daisy Dwyer and Judith Bruce (Stanford, Calif.: Stanford University Press, 1988), 155.

agricultural intensification is played out through determinate rules of access to and control over resources—fundamentally shapes the character and the trajectory of agrarian change itself.⁴

The case study is drawn from a social history of Mandinka rice growers in Senegambia and repeated governmental efforts to intensify rice production in the Gambia River Basin over the past half century. The central question in this project was: who was to work, under what conditions? But as Ursula Sharma has observed, work is always inseparable from larger questions of domestic authority and property.⁵ Accordingly, we argue that a succession of state interventions designed to increase rice output, first by expanding indigenous swamp production and later by introducing double-cropping under mechanized irrigation, animated intrahousehold struggles over access to and control over land and labor. Fought on the domestic terrain, these struggles can be understood only in relation to the entrenched sexual division of labor by crop in Mandinka society—in short, Boserup's female farming system. But this was less a traditional system than a product of modern history, namely, the growing commoditization of peasant production in the mid-nineteenth century. Efforts to intensify rice production by both traditional (swamp) or innovative (irrigated) means foundered on the reefs of household gender roles and property relations. These gender roles have been far from static, however; state interventions initiated struggles and conflicts over customary relations in Mandinka agricultural and social practice with ambiguous and even contradictory consequences for women.

In this article we first describe the construction of the female farming system in the nineteenth century as part of a wider process of meeting the need to intensify food production in general and rice production in particular. Then we trace in detail the series of strategies to reduce reliance on imported rice and, after World War II, efforts to implement mechanized double-cropping under irrigated conditions. Irrigated rice imposed dry season cultivation without historical or customary precedent in the region. Women's labor was not abruptly displaced by technological innovation but became part of a complex series of local conflicts and renegotiations over the conditions of work and the labor process, what Guyer calls

⁴ Jane Guyer and Pauline Peters, eds., "Special Issue: Conceptualising the Household," *Development and Change*, vol. 18, no. 2 (1987); see also Judith Carney, "Gender and Rural Transformation in The Gambia" (paper presented at the annual meetings of the Association of American Geographers, Baltimore, March 14–22, 1989).

⁵ Ursula Sharma, *Women's Work, Class and the Urban Household* (London: Tavistock, 1986).

"the ongoing process of bargaining about the organization of interpersonal transfers and responsibilities under shifting conditions."⁶

Inventing tradition: The groundnut boom, food crises, and women's labor in the nineteenth century

A sliver of land barely thirty kilometers wide and bisected by the River Gambia, The Gambia is conventionally viewed as an archetypical, if Lilliputian, African export economy wholly dependent upon one agricultural commodity—the peanut. But the recent history of The Gambia has also been shaped radically by the food production system that sustained export expansion and by the periodic food crises that attended the meteoric rise of groundnut production in the nineteenth century. The complex political economy of subsistence and export commodity production in The Gambia is fundamentally bound up with the history of rice, an ancient and culturally elaborated food staple linked to women, its traditional cultivators.

Prior to the European presence in what is now The Gambia, the African species of rice (*Oryza glaberrima*) was cultivated both as an upland rainfed crop (*tendako*) and, more extensively, as wet or paddy rice in tidal saline and freshwater swamps (*bafaro* and *wamifaro*), on periodically inundated floodplain flats (*leofaro*), and in riparian depressions (*bantafaro*).⁷ The indigenous rice-growing technology, which involved complex diking and flushing systems, water and salt management, elaborate plot bunding, transplanting, and even double-cropping, deeply impressed Muslim and European traveler-explorers from the fourteenth through the eighteenth centuries.⁸ Rice production in the Gambia River Basin was primarily the domain of Mandinka women,⁹ who controlled the rice they

⁶ Guyer, "Dynamic Approaches to Domestic Budgeting," 171.

⁷ Judith Carney, "Rice Cultivation Systems of The Gambia," Working Document no. 23, University of Michigan Gambia River Basin Studies (Center for Research on Economic Development, Ann Arbor, Mich., 1984); and Jennie Dey, "Cambian Women and Rice Development in The Gambia" (Ph.D. diss., University of Reading, 1980).

⁸ Francis Moore, *Travels into the Inland Parts of Africa* (London: Edward Cave, 1738); Michel Adanson, *A Voyage to Senegal, the Isle of Goree and the River Gambia* (London: Nourse, 1759); Richard Jobson, *The Golden Trade* (Teignmouth: Speight & Walpole, 1904); and Tadeusz Lewicki, *West African Food in the Middle Ages* (London: Cambridge, 1974).

⁹ This essay focuses on the Mandinka, The Gambia's dominant ethnic group, accounting for 40 percent of the population. The Mandinka farming system is well

produced. Francis Moore, a factor for the Royal African Company in the 1730s, provided an early account of the sexual divisions of labor within Gambian farming systems, observing, "Men work the Corn Ground [millet and sorghum fields] and Women and Girls the Rice Ground."¹⁰ One hundred and fifty years earlier the Portuguese traveler Donelha observed women's rice marketing at entrepôts along the Gambia River, and Moore in the eighteenth century remarked upon the importance of female crop rights, noting that rice was "their own property," marketed after "they have set by a sufficient quantity for family use."¹¹ Indeed, by the mid-eighteenth century, a robust trade had developed based on women's rice production. The French were buying large quantities of paddy at downstream trading entrepôts, prompting the commandant of the Province of Senegambia to remark in the 1770s that "rice may be produced here as much as in the Provinces of Carolina and Georgia."¹² As British territorial acquisition in the Gambia River Basin inched forward in the first part of the nineteenth century, rice was first considered seriously for export as a means to diversify a limited export base dominated by extractive forest and animal products (beeswax, gum, teak, hides, and ivory). Women's surpluses encouraged paddy exports in 1828 to the West Indian plantation economies, and by 1834 "the new branch of trade" was actively encouraged by distributing productive Asian rices (*Oryza sativa*) to liberated Africans.¹³

Whatever the likelihood of converting the discontinuous territories along the lower reaches of the Gambia River into a rice plantation economy modeled after South Carolina, the nascent rice export trade was in any case cut short by the explosive development of the groundnut industry. Merchant firms from Britain and France

documented because of the Mandinka's location along the Gambia River and early involvement in the groundnut trade. Women of the Jola and Serrahuli ethnic groups also have a rice-growing tradition: the Jola cultivating rice in riparian depressions away from the lower Gambia River, which is saline year round; and Serrahuli women growing the cereal along the river and its tributaries in the central and upper riverine areas as a secondary crop to groundnuts, whose product they appropriate individually.

¹⁰ Moore, 127.

¹¹ Andre Donelha, *An Account of Sierra Leone and the Rivers of Guinea and Cape Verde* (Lisbon: Junta de Investigacoes Cientificasdo Ultramar, 1977), 149; Moore, 7.

¹² Rhodes House, MSS. Afr.s 945, Oxford University, n.d.

¹³ Rice exports were valued at 5 percent of total export revenues in 1828; Public Records Office, London, Colonial Office 87/10, Rendall to Hay, 1834; see also David Gamble, *Contributions to a Socio-Economic Survey of The Gambia* (London: Her Majesty's Stationery Office, 1949).

such as Foster and Smith and Maurel and Prom actively encouraged groundnut production in the 1830s, notably along the river's north bank, and exports began in earnest after 1843. This growth of groundnut production represented a watershed in Mandinka household labor organization and recruitment. The lineaments of the groundnut boom can be traced to the use of both servile farm labor by Gambian household producers and the availability of platoons of seasonal migrants from neighboring territories, or "strange farmers" (*samalaalu*), who frequently worked alongside the slaves of their Gambian hosts.¹⁴ Strange farmers, who produced "more than half of the exported peanuts,"¹⁵ were largely responsible for the 400 percent leap in exports between 1843 and 1857. But the expansion of groundnut cultivation came at the expense of uplands devoted to millet and sorghum production. Except for an ominous setback in 1857, when food shortages required the import of £6,099 of rice,¹⁶ groundnut output and labor migration were buoyed by intensified mercantile competition and favorable export prices up to the global economic crisis of the early 1880s.

In short, the rapid proliferation of commodity production in the nineteenth century dramatically transformed the Gambia River Basin prior to the establishment of formal colonial rule in 1889. This transformation proved of direct consequence for gender roles, women's autonomy, and the sexual division of labor; these processes were most marked among the dominant rice-growing ethnic group, the Mandinka.¹⁷ The rice export trade virtually disappeared while demand for rice as a dietary staple increased dramatically after 1843. By the 1850s, the Gambian commodity regime was fully dependent on availability of imported rice. With domestic male labor allocated to groundnut production and large numbers of strange farmers receiving food in exchange for their labor, the demand for subsistence cereals increased at the same time that

¹⁴ Ken Swindell, *Strange Farmers of The Gambia: A Study of the Redistribution of an African Population*, Centre for Development Studies, Monograph no. 15 (Swansea: University College, 1981); A. F. Robertson, *The Dynamics of Productive Relationships* (Cambridge: Cambridge University Press, 1987).

¹⁵ Colonial Office 87/45 MacDonnell to Gray, June 16, 1849; see also Colonial Office 87/50, May 1, 1851; and Kenneth Swindell, "Serawoolies, Tillibunkas and Strange Farmers: The Development of Migrant Groundnut Farming along the Gambia River, 1848-95," *Journal of African History* 21, no. 1 (1980): 93-104.

¹⁶ "An alarming scarcity of foodstuffs have this year struck considerable parts of the river . . . on account of their neglect of the rice and corn fields" (Public Record Office 87/64, 1857).

¹⁷ This is explored in Judith Carney, "The Social History of Gambian Rice Production: An Analysis of Food Security Strategies" (Ph.D. diss., University of California, 1986); and Michael Watts, *Manufacturing Dissent: Food and Production Politics in a Peasant Society* (London: Heinemann, in press).

men's upland production of millet and sorghum was decisively eroded. The arrival of strange farmers at the onset of the rainy season augmented demands on household cereal reserves precisely during the period when food supplies were close to exhaustion (the so-called hungry season). In short, new demands were placed on the lowland rice swamps, and hence on women's labor, to feed the now expanded household. The growth of domestic demand for rice was already visible in the 1840s, when Mandinka farmers who were "not getting enough to eat" increased the area for rice cultivation by clearing mangrove thickets for production.¹⁸ The 1857 famine in particular threw into dramatic relief the extent to which food production was eroded by the groundnut boom and women were affected by changing agricultural patterns. Governor D'Arcy observed in the aftermath of the famine that in the heart of the groundnut cultivation districts, male Mandinka farmers were "no longer devoting effort to food production . . . leav[ing] this task entirely to the women, while they pursue[d] groundnuts in earnest."¹⁹

The increasing dependence on rice as a dietary staple facilitated a rapid realignment in the mid-nineteenth century of Mandinka sexual division of labor, from task- to crop-specific gender roles. In the 1850s and earlier, men and women worked side by side in both upland and lowland cropping zones. Women rotated vegetable and *fonio* (*Digitaria exilis*) production with men's upland cereal crops.²⁰ Rice production was primarily the domain of women, but men were nonetheless responsible for specific tasks, most notably the preparation of swamps prior to transplanting. However, as groundnut cultivation expanded on upland fields and was monopolized by Mandinka men, male and female agricultural labor became increasingly spatially separated between upland and lowland zones, giving rise to a much more rigid sexual division of labor by crop. Rice became women's work and, unlike groundnuts, largely non-commoditized.

Women were unable to shoulder the burden of increased household subsistence needs, and groundnut-producing communities gradually came to depend upon purchases of food, in some cases grown by Jola communities in the south bank districts and

¹⁸ National Archives of The Gambia, *Development and Welfare in The Gambia* (Bathurst: Government Printer, 1943), 4.

¹⁹ National Archives of The Gambia 87/71, 1861 Annual Report.

²⁰ *Fonio*, known as "hungry rice," was one of the first cereals to be harvested during the agricultural season when food supplies were lowest; see also Peter Weil, "Agrarian Production, Intensification and Underdevelopment: Mandinka Women of The Gambia in Time Perspective," in *Proceedings of the Title XII Conference on Women in Development*, ed. Charles Curtis (Newark: University of Delaware, 1982), 37–77.

across the border in French territory.²¹ But the early growth of regional food specialization in Senegambia could not keep pace with the meteoric growth of staple food demand underwritten by a dynamic groundnut economy. The burden of strange farmers on household food supply—estimated at one ton for each eleven migrants—and the diminished emphasis on upland food crops vastly expanded the domestic demand for food staples, a hunger satisfied from the 1840s onward by imported rice.²²

By the late 1860s, rice imports had increased tenfold over the preceding decade to 2,100 tons. This mounting dependence on imports was seen by British administrators as an expensive irritant necessary to maintain the flow of strange farmers in the face of stiff Senegalese competition and to compensate for the rapid demise of household self-sufficiency in the north bank and upper river districts. The rice import trade was controlled by French and British merchant houses, whose agents distributed rice at their wharfside depots on credit.²³ Local nut buyers characteristically purchased all available groundnuts from peasants so that seed could be fronted for the following season; cloth, trade goods, and rice were advanced both to “tie” producers for subsequent groundnut sales and to provide lucrative short-term investments. By 1860, Governor D’Arcy saw the enormous mercantile advance system as “pernicious,” something that engendered “low and immoral views and recklessness.”²⁴ Thirty years later, ironically, it was the colonial state itself, prompted by widespread crop damage, that financed a massive network of seed and rice credit to farmers.

The colonial state first advanced seed to peasants in 1894, and regularly after 1896–97, in conjunction with a reduction in export

²¹ The rice trade in Jola communities was already moribund by the last decades of the nineteenth century due to the practices of French and British merchant houses that squeezed out Jola marketing networks, and to the onset of colonial rule that shifted cash cropping to groundnuts to raise money for head taxes; see Olga Linares, “Cash Crops and Gender Constructs: The Jola of Senegal,” *Ethnology* 24, no. 2 (1985): 83–93, esp. 84. See also Abdullahi Jeng, “An Economic History of The Gambian Groundnut Industry, 1830–1924: The Evolution of an Export Economy” (Ph.D. diss., University of Birmingham, 1978). See also Carney, “The Social History of Gambian Rice Production”; and Watts, *Manufacturing Dissent*.

²² *Proceedings of the Third Conference of Protectorate Chiefs*, Sessional Paper no. 1 (Bathurst: Government Printer, 1946).

²³ The source of rice imports was never stable over the period 1835 to Independence (1965); in the 1840s a considerable quantity came from West Africa and thereafter from France, Germany, and Britain. During and after World War I, U.S. supply was dominant; it was superseded in the 1920s by France and in the 1930s by India and Burma. In the postwar period Asian and U.S. rice has predominated. See Watts, *Manufacturing Dissent*.

²⁴ Public Record Office, Colonial Office 87/69, D’Arcy to Newcastle, 1860.

taxes. The severe drought of 1901 compelled the state to provide 4,000 bags of rice on credit precisely because merchant companies terminated their subsistence credit. Debt relief lubricated the groundnut export machine because the government and the merchant companies alike depended directly on groundnuts for revenues and for the internal demand they generated. Yet half the groundnut harvest was grown by strange farmers for whom food was the central axiom of their work contract with peasant hosts. In sum, unless food was made available to capture migrant labor, the colonial house of cards would collapse.

By the time colonial rule was established in 1889, the Gambian political economy was structurally unstable. Rice imports had grown dramatically, not least because rice credits were integral to the sustenance of what, by 1915, was an army of at least 30,000 strange farmers.²⁵ Governor MacDonnell's rash assurance in 1849 that despite overcultivation of groundnuts "there would be no danger of native suffering . . . from famines"²⁶ was quite wrong-headed considering the food crises in 1857, 1876, 1894, and 1901 and, more generally, the lengthening of the hungry period in the months prior to the new harvest. Mounting food insecurities coupled with a proliferation of peasant debt necessitated a series of interventions to expand domestic food production. In particular, attention turned to the tidal swamps and women's rice production. The colonial government's first effort at import substitution, the swamp rice programs developed from the 1920s to 1950s, constituted a second major watershed in the social construction of Mandinka gender roles and conjugal relations. These successive interventions in domestic rice production profoundly altered women's productive roles and economic autonomy, domestic property rights, and household conjugal relations.

Swamp rice development and the limits of female labor

With the imposition of colonial rule, women and their work moved to the forefront of government consciousness. In the first decades of colonial incorporation, administrators toured the country to document women's cultivation practices, the agro-ecological zones planted, and the pluvial and hydrological conditions regulating

²⁵ Through the 1920s, e.g., strange farmers constituted an average 60 percent of the permanently resident adult population in Upper River Division, accounting for roughly £18,000 of staple foodstuffs per season. See Rhodes House Micr. Afr. 485 Confidential Diary, Travelling Commissioner, June 1925, and Upper River Division Annual Report 1929; see also Watts, *Manufacturing Dissent*.

²⁶ Public Record Office, Colonial Office 87/45 MacDonnell to Grey, 1849.

production. Their reports enthusiastically proclaimed Gambia's potential as a "rice bowl" and provided the rationale for the import-substitution programs developed in the tidal swamps through the 1950s.²⁷ The enthusiasm for swamp rice development was fueled by the state's fiscal crisis, which was wrought by diminishing groundnut exports and the corresponding need to reduce expenditures on milled rice, a dilemma set forth with admirable clarity in a report issued in 1923: "Our position in the groundnut industry can only be maintained by . . . discovering means whereby the cost of production can be reduced . . . by lessening the cost of labor . . . making the colony less dependent upon imported supplies of food."²⁸ Improving rice production in the tidal swamps near Mandinka lowland settlements provided a particularly compelling low-cost means to reduce import dependency. From the 1920s, improved Asian rices were introduced to boost production on the central Gambian floodplain where rich alluvial soils, tidal flooding, and seasonal freshwater conditions favored high rice yields. State programs funded mangrove clearance, the construction of causeways and footbridges to improve access to the deep water swamps, the distribution of salt tolerant seeds, and implementation of new methods of seedbed preparation. As a result of these efforts, swamp rice cultivation expanded enormously by the mid-1950s; the planted area doubled to 49,000 acres, reducing milled imports by 80 percent to 2,000 tons.²⁹

Despite the surge in production, colonial officials recognized that further increases hinged on the ability to transform the Mandinka gender division of labor, what Governor Blood in 1942 quaintly referred to as "the anthropological problem."³⁰ Women already were taxed to their limit in carrying the burden of rice production, and further intensification of rice production depended increasingly on the "extent to which the male population can be persuaded to take an active part in rice cultivation."³¹ Persuasion in this case consisted of importing male growers from Sierra Leone to educate their Mandinka counterparts in the art of swamp rice cultivation—demonstrating rudimentary irrigation techniques based on water wheels and lifts for dry season cultivation, and

²⁷ National Archives of The Gambia, *Travelling Commissioners Reports*, 1893–1917.

²⁸ National Archives of The Gambia, 11/1 *Agricultural Reports*, 1923–36.

²⁹ Carney, "The Social History of Gambian Rice Production" (n. 17 above), 208.

³⁰ National Archives of The Gambia, 2/3243, extract of letter sent by Governor Blood to the Colonial Office, December 19, 1942.

³¹ National Archives of The Gambia, 52:47/50, Department of Agriculture files, 1943.

highlighting the development potential of the tidal swamp agro-ecosystem along the middle river floodplain (*bafaro*), which had a complementary cropping cycle with groundnuts.³² But instead of creating a fillip to rice cultivation and raising its "status from a women's crop to a family endeavor,"³³ government swamp rice projects failed to transform the engendered work patterns in Mandinka agriculture. The mechanisms to compel men into the rice fields were singularly lacking, and men successfully resisted efforts to intensify their labor on the grounds that rice was "a woman's crop."

The burden men were able to shed in food production was shouldered by their wives, mothers, and daughters. Margaret Haswell's extraordinary thirty-year study of one community involved in mangrove rice development details the social changes in Mandinka household production and, specifically, in women's labor allocation. Between 1949, on the eve of the mangrove rice program, and her return in 1962, Haswell noted that the average tidal swamp rice plot cultivated per female worker increased in size from 1.0 to 1.19 acres, accounting for a village-wide expansion from 168 to 263 acres. The greater emphasis on mangrove rice development over other rice ecologies extended the period women labored in the swamps from 90 to 102 days;³⁴ further, the location of mangrove plots in riparian swamps involved long daily commuting, extending the number of hours per day that women were involved in rice cultivation and absent from their young children.³⁵ Haswell's data also starkly revealed that women were entering rice cultivation at a younger age, with a significant increase in work by women under twenty and girls under the age of ten.³⁶

Colonial rice development projects, moreover, generated conflicts in Mandinka conjugal relations, notably related to women's

³² J. E. Y. Hardcastle, *Report on a Visit to The Gambia and Senegal* (Rokupr, Sierra Leone: West African Rice Research Station, 1961); and National Archives of The Gambia, 2/961, correspondence between Governor Denham and Lord Passfield, Secretary of State for the Colonies, October 10, 1929. See also Carney, "The Social History of Gambian Rice Production."

³³ National Archives of The Gambia, C. M. Roddan, *A Report on Rice Cultivation in The Gambia*, Sessional Paper no. 2 (Bathurst: Government Printer, 1943).

³⁴ Margaret Haswell, *Economics of Agriculture in a Savannah Village*, Colonial Office Research Study no. 8 (London: Her Majesty's Stationery Office, 1953), and *The Changing Patterns of Economic Activity in a Gambia Village*, Department of Technical Cooperation, Overseas Research Publication no. 2 (London: Her Majesty's Stationery Office, 1963), 22–33.

³⁵ Peter Weil, "Wet Rice, Women, and Adaptation in The Gambia," *Rural Africana* 19 (Winter 1973): 20–29.

³⁶ Haswell, *The Changing Patterns of Economic Activity in a Gambia Village*, 34, 104.

efforts to reassert their crop rights and establish legitimate claims to the rice they produced. The struggles over property and crop disposition were rooted in Mandinka social structure and in the domestic relations regulating access to and control over resources. The Mandinka household, a patrilineal, patrilocal, and polygynous kin-residence group averaging seventeen members, provides the context in which both men and women obtain access to farm land. However, residence in a household (*korda*) obliges family members to cooperate in production for use and exchange. In return for the labor committed to household subsistence, family members are allocated rights to a portion of family landed property. Property rights and labor claims then, as now, constituted the fundamental axes of Mandinka production relations; however, these axes not only shaped the nature of work but framed, and are framed by, the social structure of patriarchal family relations and the gender division of labor.³⁷ The manner in which some rights, especially those pertaining to labor and land, are naturalized by tradition is embodied in the conjugal contract, "the terms on which husbands and wives exchange goods, incomes and services, including labor, within the household."³⁸ Twentieth-century rice development projects, aiming to expand production, have challenged the terms of the conjugal contract, a challenge that has been defended, resisted, and negotiated with mixed consequences for women and agricultural growth.

Mandinka farmers recognize both common and individual property rights. In both instances the fundamental principle conferring ownership is the clearing of uncultivated, unclaimed land. If family members undertake the clearing collectively, the land is designated *maruo* and as such is inalienable from the residence group. Individual women and men, however, may establish land ownership rights by clearance under their own labor (*kamanyango*). Accounting for a smaller proportion of land ownership, *kamanyango* land is important not least among women for whom such an entitlement represents a partial autonomy, the only means to circumvent the

³⁷ Judith Carney, "Struggles over Crop Rights and Labour within Contract Farming Households in a Gambian Irrigated Rice Project," *Journal of Peasant Studies* 15, no. 3 (April 1988): 334–49; see also Jennie Dey, "Gambian Women: Unequal Partners in Rice Development Projects?" *Journal of Development Studies* 17, no. 3 (April 1981): 109–22; Ursula Sharma, *Women, Work and Property in North-West India* (London: Tavistock, 1980).

³⁸ Ann Whitehead, "'I'm Hungry Mum': The Politics of Domestic Budgeting," in *Of Marriage and the Market*, ed. Kate Young, Carol Wolkowitz, and Roslyn McCullagh (London: Methuen, 1981), 88–111, esp. 88; see also Lourdes Beneria and Martha Roldan, *The Crossroads of Class and Gender* (Chicago: University of Chicago Press, 1987).

patriarchal structure of family property control and hence to transfer land to their daughters.³⁹ The vast majority of individually owned land has historically been cleared from lowland swamps and is typically devoted to labor-intensive rice production.

The language of landed property also refers simultaneously to labor relations and crop rights on land claimed by the household residence group. Mandinka nomenclature distinguishes between fields employed for food crop or use value production, and plots planted for cash cropping or exchange. Land on which family members labor for collective subsistence needs is conventionally referred to as household fields, or *maruo*, and constitutes the dominant form of family land use. Crops produced for domestic consumption fall under the jurisdiction of the male household head, who controls storage, distribution, and profits in the event of sale. In return for the provision of *maruo* labor, the household head confers to family members usufructory rights over a small portion of household land. To the extent that the cultivator remains a resident and able-bodied family laborer, control over the plot use and crop rights is guaranteed in perpetuity. These individual fields devoted to production for exchange are also referred to as *kamanyango*. Men characteristically cultivate groundnuts on their individual fields; women typically grow rice for sale. *Kamanyango* entitlements are ideologically central to the constitution and functioning of the conjugal contract. Family members are compensated for the labor they provide on household fields by the conferral of direct control over the products of their individual plots. *Kamanyango* crops are generally marketed, providing subordinate household members with their primary access to income; for women in particular, individual rice fields provide the means of purchasing supplemental food and clothing for their children.

As mangrove swamps were converted into new rice lands during the late 1940s and early 1950s, women sought to assert their traditional crop rights, making claims to a share of the rice output. In short, women viewed the newly cleared and improved swamps as an opportunity to reassert their *kamanyango* rights. Conversely, the expanded output provided an avenue by which men could reduce their purchases of milled rice imports and convert a portion

³⁹ "When you're born, you're given land by your mother. It becomes your land. You can also get *maruo* [compound] land from your husband; but if you marry a man who has no land to give you as your own, your mother's land is always there for you to support yourself. Even the village headman hasn't the right to take that land away from you" (Mariama Koita, a Mandinka woman interviewed in "The Lost Harvest," a film documentary, produced by Sarah Hobson for the British Broadcasting Corporation, London, 1983).

of their groundnut earnings into disposable income. Women confronted vigorous opposition from their husbands as soon as they began clearing sections of the newly opened swamps, a process that confers ownership rights. In transforming thickly vegetated lowland swamps into individual *kamanyango* plots, women in fact reaffirmed their historic right to detach part of their labor from household control.⁴⁰

Male opposition to women's land claims starkly revealed the manner in which a particular configuration of patriarchy and property shaped household accumulation strategies. In one case that drew the attention of colonial administrators, men set forth the reasons why women should not own land, asserting that "if women mark the land and divide it, it will become 'women's property,' so that when the husband dies or divorces his wife, the wife will still retain the land, which is wrong. Women must not own land."⁴¹ The threat posed by women's struggles to the patriarchal property-labor system diminished as colonial officials, sensitive to the implications of women's individual crop control for migrant labor and household food reserves, determined that the new rice lands were household, not individual, property. The elasticity of the term *maruo* facilitated the invention of a new tradition in Gambian rice-growing areas: developed plots were designated household *maruo*, a classification that diminished female control over the products of their labor and enabled male family heads to appropriate women's surplus production.⁴²

The era of swamp rice projects closed as colonial officials recognized the limits imposed by a relatively inflexible Mandinka gender division of labor. The projects had greatly expanded swamp rice output and cultivated area, but the elusive goal of national self-sufficiency in rice rested on the government's capacity to draw men into rice production. In the final analysis, colonial efforts to improve domestic rice production foundered on the reefs of Mandinka conjugal relations. The swamp rice program highlighted the absolute limits of women's labor time, and confirmed an earlier observation of Governor Blood: "[Rice] is still almost entirely a woman's crop and I doubt whether more woman hours can be devoted to this form of cultivation."⁴³

⁴⁰ Carney, "The Social History of Gambian Rice Production" (n. 17 above), 243–51.

⁴¹ A. K. Rahman, " 'Land Tenure' in Genieri" (unpublished notes ca. 1949 made available by David Gamble).

⁴² Carney, "The Social History of Gambian Rice Production," 307.

⁴³ National Archives of The Gambia, 52:47/50, Department of Agriculture files, 1943.

The postwar period: Irrigation, land conflicts, and production politics, 1947–present

As the Gambian government pressed ahead with the swamp rice development projects, the Colonial Office in London geared up for a more ambitious scheme to revolutionize rice productivity through mechanized dry season irrigation (double-cropping). Irrigation was hardly a new idea in The Gambia. First identified by Governor Llewelyn in 1897, it was repeatedly discussed by metropolitan agricultural advisors through the 1920s.⁴⁴ During this period, colonial devotion to self-finance and the flooding of international markets with cheap rice worked against the consideration of irrigation as a technical innovation to overcome the limits of labor availability.⁴⁵ But confronted by a local foodstuffs scarcity during World War II, the 1947 world food crisis, and the prodding of two major agricultural missions to West Africa,⁴⁶ the metropole's reservations abated. In 1949 the British Treasury, in tandem with the Colonial Development Corporation (CDC), initiated a fully mechanized large-scale (10,800 acre) irrigated rice project at Wallikunda, located along the central, salt-free river zone. It marked the first of three postwar phases of irrigated rice development that would have highly contradictory consequences for Mandinka women's work and property rights.

Grandiose irrigation: The CDC scheme, 1949–65

Pressured by the postwar crisis, CDC rushed headlong into a production scheme begun with almost no hydrological and ecolog-

⁴⁴ National Archives of The Gambia, *Travelling Commissioners Reports*, 1893–99, letter by Governor Llewelyn, (1897); and National Archives of The Gambia, 2/291, H. Parker, *Report on Proposed Irrigation at The Gambia* (1901), and *Second Report on Proposed Irrigation at The Gambia* (1903); and M. T. Dawe, *Report on Agricultural Conditions and Needs of The Gambia* (1921).

⁴⁵ Consequently, there was considerable discussion of the possibilities for introducing an irrigated cash crop (cotton) because "there would be no difficulty in raising the water of the Gambia for its irrigation at a cost which the growers ought to be able to pay" (National Archives of The Gambia, 2/961, letter by Frank Stockdale, Secretary of State for the Colonies, December 5, 1929).

⁴⁶ The shift in policy was a product of the abandonment of territorial self-sufficiency in the colonies and the need to create nondollar sources of materials supply. Mike Cowen, "The Early Years of the Colonial Development Corporation, *African Affairs* 83, no. 330 (1984): 63–75; see also Kenneth Baldwin, *The Niger Agricultural Project* (Cambridge, Mass.: Harvard University Press, 1957); and National Archives of The Gambia, 2/3240, W. M. Clark and F. H. Hutchinson, *West African Rice Mission Report* (1948); also Watts, *Manufacturing Dissent* (n. 17 above).

ical data and no topographic surveys and strapped by fundamental technical and design flaws. As a consequence, dry season irrigation proved to be a spectacular failure. In desperation, CDC turned to wet season paddy production, but cropping objectives were beset by poor working conditions and deteriorating relations between CDC staff and local villages. Reorganized in 1952 as a joint venture with the colonial government and renamed the Gambia Rice Farm, the scheme was converted in 1958 into the government's Sapu Rice Research Station.

Each phase of the scheme's reorganization had direct implications for, and was in part a response to, women's struggles over land and crop rights and labor obligations. The colonial government had drawn up a thirty-year lease granting CDC control of the 10,800 acres it sought to develop, and in doing so ignored the crucial detail that much of the land was already communally owned. In fact, at least one-quarter of the appropriated land was under cultivation by local women.⁴⁷ As compensation for lost rice production and appropriated *kamanyango* plots, female farmers were offered wage work, principally to perform the labor-intensive, nonmechanized operations such as rice seeding, weeding, and harvesting. Within a year of the lease signing, angry female farmers and their husbands were demanding the return of the rice land. Already committed to the tune of £300,000 for infrastructure development, CDC was in no position, however, to cede control. Men retaliated by breaking into the project's stores and taking 200 tons of rice because "*tubabos* (whites) had taken their land."⁴⁸ These "Gothic predations," as the CDC's director referred to the thefts, proved to be a mortal blow to the Wallikunda project.⁴⁹

If male theft undermined the original CDC vision, so did female resistance, in particular women's reluctance to work as wage laborers performing the nonmechanized farm operations. In this case, faulty infrastructural design proved instrumental. The management's inability to refine the irrigation system hobbled the plan for dry season cultivation, and the poorly designed drainage canals impeded water control during the wet season, reducing the usable acreage. Some women exploited these technical flaws by reestablishing rice cultivation on a part of the appropriated land and adapting their traditionally flexible rice production techniques to the drainage changes induced by the project.⁵⁰ Insofar as the

⁴⁷ Carney, "The Social History of Gambian Rice Production," 199.

⁴⁸ National Archives of The Gambia, 2/3313 R/293a, vol. 1, 1954; see Watts, *Manufacturing Dissent*.

⁴⁹ National Archives of The Gambia, 2/3313, n.d.

⁵⁰ Judith Carney, unpublished fieldwork interviews, 1987.

scheme operated on reduced acreage and was confined to wet season operation, the management was compelled to compete directly with family labor when women were busy with their own crops. Mandinka women's resistance to wage labor and the opportunities they created within the spaces manufactured by the project's design flaws frustrated the management's ability to secure a disciplined and regular female labor force. Unable to transform local work routines, the project needed new labor arrangements to be viable.

In 1952 the CDC, in partnership with the colonial government, scaled down the project to a 200-acre tract and addressed the labor problem head on. Sharecropping was introduced to avoid "burdening the system with the cost of daily labour," which "cannot compete against peasant agriculture."⁵¹ The sharecropping arrangement, which allocated two bags of paddy for every five produced, was designed to attract both men and women. But the project management could lure only women, typically with no rice land of their own, as sharecroppers; "men will have nothing to do with rice growing," remarked a frustrated farm manager.⁵² Sharecropping arrangements proved, in fact, to be wholly unsatisfactory. When the anticipated massive rush of female cultivators did not materialize, the management regularly opined that "each year the farm has to be content to wait for women . . . until such time as they are free from work with their own rice crop."⁵³ Moreover, among those who did sharecrop, there were additional problems: women systematically underreported their harvests to appropriate larger shares of the crop.⁵⁴

In 1958, when the CDC withdrew altogether and the project fell into the hands of the Sapu Rice Research Station, another labor arrangement—tenancy—was implemented to ensure a fixed quantity of rice production. The leased land was rented to female rice growers who were provided with subsidized tractor-plowing services. Tenancy did sustain production, but project management failed to achieve the anticipated paddy surpluses. Women resisted the labor claims by underpaying or defaulting on the tractor

⁵¹ National Archives of The Gambia, 2/3313 *Gaitskell Report* (1952), 22; and *Gambia Rice Farm Annual Reports, 1952–1958* (1958).

⁵² J. Gillespie, *Gambia Rice Farm Annual Report* (London: Colonial Development Corporation, 1954), 3.

⁵³ Watts, *Manufacturing Dissent*.

⁵⁴ While sharecropping improved women's participation, it also set the stage for the explosive land conflicts that were to emerge three decades later with the Jahaly Pacharr project. The urgency to attract female sharecroppers overrode the management's interest in whether the women employed were the original owner-tillers and established the basis by which farmers subsequently claimed the plots as their own.

services, thus placing government officials in the uncomfortable position of accepting lowered appropriations and/or massive losses. Rice appropriation by the farm management actually declined from roughly 1,000 pounds of paddy per acre under sharecropping in 1955 to 400 pounds under tenant arrangements in 1957, and finally to only 160 pounds per acre by 1962.⁵⁵ By the 1960s, women's refusal to pay the government for the tractor-plowing service amounted to £24,000 per year, and the service ran at a significant annual loss. In effect, the project was captured by heavily indebted female tenants.

At independence, the Gambian government returned the rice lands to local cultivators, but the conflicts did not abate. The project's repeated attempts to secure a reliable work force bequeathed a legacy of competing land claims between villages and within families. The Wallikunda project sowed bitter seeds in the soil of Mandinka conjugality; as women endeavored to reestablish their *kamanyango* crop rights, men proclaimed the former CDC lands as *maruo*.⁵⁶ From the perspective of the state, however, irrigation development had conspicuously failed to revolutionize rice productivity and deliver commercial surpluses. Imports continued to grow rapidly, and The Gambia arrived at independence with annual milled rice imports exceeding 10,000 tons.

Small-scale community irrigation: 1966–79

Rice import substitution entered a new phase in the 1960s. Productivity and labor crises were to be resolved through development of small-scale, mechanized rice production under full water control and introduction of double-cropping of high-yielding green revolution rice varieties. Focused on the central and eastern swamp rice districts where the river was fresh year round, the small-scale perimeters (10–20 hectares) returned in principle to the goals of the CDC, namely, simultaneously revolutionizing the technical means of production (introducing irrigated perimeters, small pumps, rototillers, and threshers) and enhancing the land and labor productivity by extending farmwork into the slack dry season in order to capture male labor. The major difference was that households directly controlled their own labor process and maintained

⁵⁵ Hector MacCluskie, *Report on the Gambia Rice Farm, 1952–1958* (London: Colonial Development Corporation, 1958), 14; see also Carney, "The Social History of Gambian Rice Production," 206; and Michael Watts, "The Past in the Present: The Moral of Irrigation Failure in The Gambia," *Agricultural History*, in press.

⁵⁶ Dey, *Gambian Women and Rice Development in The Gambia* (n. 7 above).

use rights on newly leveled land that they helped to clear. Between 1966 and 1979, some 2,900 hectares of land were leveled and reclaimed for irrigation, and some 311 irrigation association/perimeters established, under three different institutional auspices: the Taiwanese Agricultural Mission (1966–74), the World Bank (1973–76), and the People's Republic of China Mission (1975–79).⁵⁷ The organizations of the missions and the perimeters were not identical but in general rested on the provision of water, fertilizer, pumps and fuel, seed, and rototillers on credit, at heavily subsidized rates, to be repaid at harvest.

By 1980, less than 40 percent (965 hectares) remained in production, with only 10 percent double-cropped. Debt recovery by the Gambian government for production credits was less than 20 percent, and sales of rice surpluses were negligible. In a sense, the state was captured by peasant producers because community control prevented the withdrawal of plots from unproductive households or from families with low cropping intensity. The project did attain a long-sought objective: men were gradually induced to grow rice. Still, double-cropping, so pivotal for rice commoditization, was thwarted by women's responses to male participation in and control over the schemes.

The irrigation projects were predicated on the capacity of household labor resources, male and female, to meet year-round cropping schedules. Yet the development missions, obsessed with the technical aspects of irrigation, largely ignored the Mandinka social relations of production. Each mission assumed that farm families adhered to a joint utility function in which men and women labored equally for mutual household objectives, never questioning whether they would share the labor burden or income benefits.⁵⁸ Male heads of household were mobilized for land clearance and for perimeter development, and the missions accordingly granted men control over the irrigated property. Land clearance established ownership rights that men claimed in two ways: by designating the plots either as individually owned *kamanyango* or as household or *maruo* property. The significance of land classification and the naming of *maruo* plots was immediately evident. Men sought to draw on women's customary *maruo* labor obligations without granting them *kamanyango* crop rights. For women this

⁵⁷ See Deborah Brautigam, "The People's Republic of China Irrigated Rice Project in The Gambia," Working Document no. 42, Gambia River Basin Studies (Center for Research on Economic Development, Ann Arbor, Mich., 1984).

⁵⁸ Judith Carney and Michael Watts, "Manufacturing Dissent: Work, Gender and the Politics of Meaning in a Peasant Society," *Africa* 60, no. 2 (1990): 207–41; and Dey, "Gambian Women: Unequal Partners in Rice Development Projects?"

subtle reclassification of land rights represented a fundamental breach in domestic entitlements and of the conjugal contract that regulates and is embedded in family production relations.

The central household conflicts posed by small-scale perimeter development were similar to what Edward Thompson, in describing quite different circumstances, calls time and work discipline—specifically, whether women would work the new plots for one or two cropping seasons.⁵⁹ Mandinka production relations were rooted historically in a farming system attuned to a five-month cropping cycle; indeed, there was no historical precedent for the new claims on women's *maruo* for year-round cultivation. As men tried to induce their wives to labor in the irrigated perimeters for double-cropping, women resisted—often successfully. Their rejection of new labor claims forced a renegotiation of the conjugal contract, a form of production politics,⁶⁰ with direct consequences for women's work and the schemes' ability to commoditize rice production. Female family members consented to provide *maruo* labor for dry season cultivation in return for *kamanyango* crop rights during the rains (sometimes planting the self-same irrigation plot to a rainfed rice crop).⁶¹ Men, too, worked the irrigation perimeters during the dry season but turned during the rains to their more remunerative upland groundnut fields. The manner in which farm work on the irrigated projects was mediated by and through the social relations of the Mandinka household produced intractable obstacles for the planners, who had envisaged the straightforward adoption of double-cropping.

Small-scale irrigation development had contradictory consequences for Mandinka women. While it extended their agricultural calendar to year-round cultivation, women were able to resist their husbands' efforts to draw on their uncompensated labor for two cropping cycles. Even though the conjugal contract remained calibrated to traditional labor claims developed for a single cropping season, the changes in Mandinka production relations at the level of the household reaffirmed the tenacity of women in defense of their customary crop rights and labor obligations. The legacy of the 1970s revealed starkly, nonetheless, that women's ability to defend their customary rights depended increasingly on their access to individual swamp rice plots. These rights and entitlements were seriously threatened by technological innovations and

⁵⁹ Edward Thompson, "Time, Work Discipline and Industrial Capitalism," *Past and Present* 38 (December 1967): 56–97.

⁶⁰ Michael Burawoy, *The Politics of Production* (London: Verso, 1985); Watts, *Manufacturing Dissent* (n. 17 above).

⁶¹ Carney, "The Social History of Gambian Rice Production" (n. 17 above), 251.

by a radically new labor process deriving from the return to large-scale mechanized irrigation in the 1980s.

A return to large-scale irrigation: The Jahaly Pacharr project

The particular configuration of a severe Sahelian drought, high annual rates of population growth (3.5 percent), and cheap food policies contributed to a startling escalation of Gambian rice imports over the past two decades.⁶² The conspicuous failure of the small-scale irrigation projects to mitigate growing food dependency was, nonetheless, central to the new rice strategy launched by the Gambian state in 1984.⁶³ To ensure marketable rice surpluses, the Jahaly Pacharr project has pioneered new work conditions and production relations distinguished by coercion and direct subordination of peasant families under contract; specifically, the state (as project manager) retains the right to appropriate irrigated plots from households failing to meet work routines and productivity goals. Rice growers are advanced credit for land preparation and water costs, to be repaid with a share of the paddy harvest. Plot usufruct is tied to fixed production goals that demand subordination of producers to a highly routinized, standard agricultural calendar determined by the project management.

Jahaly Pacharr is a large-scale irrigation scheme: a centralized water delivery system irrigates 1,500 hectares of swamp (of which 560 are pump-irrigated and an additional 700 tidal-irrigated). It involves four ethnic groups: Mandinka (33 percent), Fula (27 percent), Serrahuli (23 percent), and Wolof (18 percent).⁶⁴ Like its predecessors, Jahaly Pacharr is predicated upon the availability of family labor for year-round cultivation and rests on the logic of domestic self-exploitation and peasant "competitiveness." In its original design, however, the project quite explicitly assumed that the burden of farm work and the capacity for assiduous devotion to rice growing was to be shouldered in large measure by women. Productivity goals rested on female labor power: "Women are better than men as far as transplanting is concerned and they are

⁶² Since the mid-1970s rice imports have averaged 35,000 tons per annum.

⁶³ The Jahaly Pacharr project is located on the former site of the Colonial Development Corporation scheme, 280 kilometers east of the country's capital. It is funded with a US\$16.5 million loan on easy lending terms through the International Fund for Agricultural Development, the African Development Fund, the World Food Program, and the governments of the Netherlands and West Germany.

⁶⁴ *Euroconsult Feasibility Study Jahaly and Pacharr Swamps, Final Report* (Arnhem, The Netherlands: Euroconsult, 1980).

also better than men as far as working in the water . . . so quite frankly we expect a lot of labour from women, more so than from men.”⁶⁵ Female rice farmers also became the focus of the donors’ efforts to make “special reference to women, who traditionally have been the major rice growers under arduous swamp conditions.”⁶⁶ Sensitive to the growing international clamor over the adverse consequences to women of rural development projects and specifically the inability of previous Gambian irrigation schemes to reach female growers, donors sought to award the pump-irrigated plots specifically to female constituencies. But they did so without sufficient attention to the ways symbolic and cultural definitions of property establish the conditions of resource access and control. The project’s authoritarian labor regime was grafted onto but did not reform patriarchal family relations. The centrality of women’s labor to productivity goals and plot retention placed new demands on the household-based production unit that proved incompatible with the donors’ output objectives. Household heads across all ethnic groups registered the plots in women’s names but classified them as household land.⁶⁷ The designation of irrigated plots as domestic, that is, “communal” property—heralded as a victory for women’s rights⁶⁸—reflected important changes in the system of household property control. To alter property rights, narrowly defined as control over things, is simultaneously to transform social relations and to restructure household production relations.⁶⁹

Struggles over work, struggles over land

As the restriction of women’s access to uplands in the nineteenth century granted Mandinka men control over export production, so contemporary irrigation developments are deepening the process of symmetrical commercialization along gender lines and extend-

⁶⁵ The Jahaly Pacharr project manager quoted on the scheme’s early phase in “The Lost Harvest” (n. 39 above).

⁶⁶ International Fund for Agricultural Development, IFAD Revised Appraisal Report, *Jahaly and Pacharr Smallholders Project* (The Gambia: Ministry of Agriculture, 1981).

⁶⁷ Carney, “The Social History of Gambian Rice Production,” 305.

⁶⁸ See, e.g., “How Women Were Involved in The Gambia,” *International Agricultural Development* (January–February 1985), 21–23, esp. 22, which notes: “A more equitable mechanism of land distribution was worked out, in which the rights of women to possess their own plots against the pressure from male farmers, was protected. . . . This was a notable achievement in male-dominated Gambian society.”

⁶⁹ Carney and Watts (n. 58 above).

ing these relations to other ethnic groups. In the current phase of state-imposed forms of rice intensification, household heads are utilizing the communal (Mandinka: *maruo*) designation of irrigated land to manipulate female labor obligations as a means of controlling the fruits of commoditization. And yet the introduction of a new labor process—new work conditions, work routines, and patterns of labor mobilization—has been itself an object of intense struggle and contestation. Indeed, before the first seeds were placed in the soil, women reacted strongly. The advent of the project signaled radically new claims on their bodies and enormously demanding work routines to produce a commodity that was symbolically viewed as “women’s sweat.”

The Jahaly Pacharr project incorporated most of Mandinka and Serrahuli traditional swamp rice areas. For Wolof and Fula women, however, project implementation heralded new agricultural practices that would augment their customary labor demands. Women across all ethnic groups resisted the intensification of their labor posed by project development, and the locus of their struggle pivoted on reaffirming their pre-existing patterns of individual rights to control their labor and the benefits realized. For the cattle-herding Fula, agriculture is a secondary activity, confined largely to upland millet and groundnut production. While Fula women assist in growing these crops, most of their labor is devoted to animal husbandry—in particular, milking and the processing of dairy products for sale, the benefits of which they share with their husbands. Their important economic contribution to the household thus facilitates a fairly equitable sharing of the labor burden on the project’s plots between Fula men and women. Serrahuli and Wolof women, in contrast to Mandinka, have individual crop rights established in upland groundnut fields unaffected by project development. Even though Serrahuli women also lost their rice fields, these plots were for communal production only. Serrahuli and Wolof women, like junior males, still maintain the right to withdraw their labor for individual plot production during the rainy season. This partial control over labor provides a bulwark from which they can resist household demands to shoulder the expanded work burden associated with double-cropping. Consequently, when Serrahuli and Wolof women labor in the project’s fields, they are compensated in paddy. Mandinka women, conversely, have been placed in a much more vulnerable position, since their traditional swamp rice areas were directly incorporated into the project; in the future, their individual crop rights would depend on access to the project’s plots. Mandinka women were well aware that unless their property rights were asserted and defended, they risked the loss of

all individual *kamanyango* plots and, more important, faced the erosion of all protection against household claims over their labor.⁷⁰ This vulnerability was forcefully articulated by a Mandinka woman in the Jahaly Pacharr locale: "It seems this project is just like the Chinese one when we suffered before. We aren't going to put up with that again. . . . I have this to say to you men. We women aren't going to accept the way we have been treated in the past. We were asleep then. But now we are awake."⁷¹

The significance of female family labor to the Mandinka domestic enterprise was evident during the first dry season cropping period in 1985. Women provided the majority of labor time on the pumped plots while the male household head maintained his customary control over *maruo* production. In exercising his historical claims to the rice produced on household fields, the household head has benefited materially from The Gambia's green revolution. It is he who markets and sells the plot's rice and he who individually appropriates the revenues generated from the marketed surpluses. Further, the investible surpluses are, in local terms, quite substantial. The value of the average surplus produced on the pump-irrigated plots in 1984 represented a tripling of preproject incomes.⁷² The subtle process by which the classification of land tenure has changed enables senior men to claim women's labor, unpaid and uncompensated, while the product of nominally "collective" fields is individually appropriated.

Technological innovation and a restructuring of the labor process through rice intensification has also de facto reconstituted the conjugal contract regulating Mandinka family and production relations. Male household heads have expanded their domestic hegemony within the family through a careful manipulation and centralization of crop and labor rights. Dependent women, conversely, have lost their individual rice fields and witnessed an erosion of both their autonomy within the domestic unit and the customary reciprocities between husbands and wives. The complex recomposition of labor and the reclassification of property rights has not passed uncontested, however, and has in fact spawned new strug-

⁷⁰ Judith Carney, "Contracting a Food Staple in The Gambia," in *Peasants under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa*, ed. Peter Little and Michael Watts (forthcoming).

⁷¹ Koita (n. 39 above).

⁷² Judith Carney, *Contract Farming in Irrigated Rice Production: Jahaly Pacharr Project, The Gambia*, Contract Farming in Africa Project Working Paper no. 9 (Binghamton, N.Y.: Institute for Development Anthropology, 1987), and "Struggles over Land and Crops in an Irrigated Rice Scheme," in *Agriculture, Women and Land*, ed. Jean Davison (Boulder, Colo.: Westview, 1988), 59–78.

gles over crop rights and labor obligations that are negotiated and resisted on a variety of material, symbolic, and ideological terrains.

During the second rainy season cropping cycle, when dependent Mandinka men concentrated on their upland *kamanyango* groundnut crops, women pressed for official acknowledgment of their individual crop rights. The importance of their labor to the household's retention of plot usufruct provided a sort of beachhead from which women could powerfully assert their traditional crop rights within the parameters set by the state-operated project. Women's initial efforts focused on convincing management to designate the remainder of project land—the tidal and rainfed plots available for wet season cultivation—as *kamanyango*. But the overriding management concern with productivity and hence with the mobilization and intensification of family labor made officials unwilling to champion actions that might reduce labor availability for irrigation. As a labor category, *maruo* alone provided the domestic institutional framework within which control of and claims over dependent labor could be articulated. Women were thus compelled to negotiate for their individual crop rights through the same patriarchal social structures that sought to deny them in the first place. When these efforts failed, women demanded remuneration for their paddy labor from the proceeds of the pump-irrigated plots.

Mandinka women's success in bargaining for labor compensation—in a sense, renegotiating the terms and conditions of the conjugal contract—has been uneven. By the end of the project's third cropping year (1986), three generalized resolutions had emerged in project households. In some households with access to other types of project land, women's crop rights were recognized; they were granted the usufruct to tidal-irrigated and rainfed plots. In others, women's crop rights were sometimes upheld; but insofar as the household had no or limited access to other types of project land, men compensated their wives' labor with a share of paddy. In these households, the external (i.e., household-management) share-contracting relation had been internalized within the conjugal contract. In still others, women's crop rights were not recognized, and the family unit provided neither access to other project plots nor labor remuneration of any sort.⁷³ In this latter case women have been, in essence, proletarianized.

Nearly 2,000 households in seventy villages are included in the Jahaly Pacharr project, but until further survey work is completed a full picture of gender struggles and production politics is unavail-

⁷³ Carney, *Contract Farming in Irrigated Rice Production*.

able. One can, however, identify key structural patterns and relations that shape the capacity of women to secure crop rights or labor compensation. In one village endowed with access to both pumped and nonpumped plots, women received their sought-after *kamanyango* rights in the tidal and rainfed areas. Collective bargaining by female growers at the village level was successful, but the support and presence of the chief's daughter on the influential project land allocation committee proved to be critical.⁷⁴ In another ostensibly similar community just a few kilometers away, women were unsuccessful in claiming usufructory rights to tidal areas from the village elders, a failure that produced complex negotiations over their land rights, with uneven results.

In a surveyed village without command over either tidal or rainfed plots, domestic conflict resolution focused on remuneration. A handful of elite households with multiple project land have granted female family members *kamanyango* rights to one of the pumped plots; about 15 percent of village households that share a pumped plot with one or two other families were unable to compensate women for their labor. Only 20 percent of these households granted women a fixed share of paddy for their work.⁷⁵ Failing to receive any form of compensation, many women have withdrawn their labor entirely. In short, they have refused to labor on the pumped plots and have boycotted irrigated rice operations. They are effectively on strike.

In withdrawing labor, women typically are seen (by men) as abrogating customary obligations. By their actions they run the risk of remonstrance, challenge, and occasionally beatings. Whatever the cultural and symbolic discontent fomented by the withholding of labor, it has had a far-reaching impact on the social organization of family production. Many labor-short households adhere to the project's cropping schedules only with great difficulty, a condition that has contributed to low yields.⁷⁶ While the yield reductions are not so low as to jeopardize plot usufruct, they do limit the project's potential to deliver to its technological capability. Furthermore,

⁷⁴ The project inherited so many competing household and intrahousehold conflicts over land from the Colonial Development Corporation scheme that the donors insisted that the land allocation committees for Jahaly and Pacharr swamps have 50 percent female representation. These committees serve as a conduit between the project management and participating farmers.

⁷⁵ The yield percentage Mandinka women received in early 1987 averaged about 10 percent with a paddy value that ranged from 150 to 500 dalasis per year (US\$20–\$70); see Carney, "Struggles over Crop Rights and Labour within Contract Farming Households in a Gambian Irrigated Rice Project," 344.

⁷⁶ From 1984 to 1986 average dry season pump irrigated yields dropped from 7.5 tons/hectare to 5.7 tons/hectare; Carney, *Contract Farming in Irrigated Rice Production*, 34.

female labor withdrawal has been attended by an increase in labor hire, in effect creating a nascent rural labor market since 1984. The value of wage labor for the 1986 cropping year closely approximates (in rice paddy equivalents) the compensation paid to women in households with sharecropping arrangements between husband and wives.⁷⁷

More to the point, most of the wage laborers in Mandinka villages are precisely those women who have been proletarianized by the advent of rice mechanization. Having lost access to rice land, they now concentrate their economic activity on the local wage labor market for irrigated farm work, a development that has contributed to the transformation of women's reciprocal labor networks (*kafo*). Historically, *kafos*, organized by age cohort, mobilized large work groups for agricultural operations or functioned as an auxiliary labor reserve for women who were sick, pregnant, or otherwise unable to go to their fields. The money collected typically served as a common fund for financial assistance and for ceremonial occasions. Among the proletarianized Mandinka women who have lost land entitlements, reciprocal labor groups now serve as an organizational framework for recruiting and organizing gang labor. In sharp contrast to the preproject period, the *kafo* earnings are no longer accumulated for mutual need but are divided as a wage among the individual female participants. In forming work gangs that quickly and effectively complete important operations on the irrigated plots, women actually receive a better rural wage than as formal day laborers.⁷⁸

The challenge to women's property rights and work obligations has elicited a variety of responses that have deepened and intensified latent and long-standing domestic tensions. The household has been converted into a terrain of intense struggle and negotiation and of limited victories, which have challenged, albeit obliquely, dominant representations of gender and patriarchal power. Even where women have lost access to land, they have responded by using pre-existing social institutions to bid up their daily wage rate.

Conclusion

Is home never a sweet place after all? Could it be that all the cards we thought were hearts were just different-colored spades? [Nancy Folbre]

⁷⁷ During 1986, households averaged US\$30–\$85 for hired labor compared to US\$20–\$70 paid in paddy to wives involved in sharecropping arrangements; *ibid.*

⁷⁸ For example, a group of twenty women usually charge eighty dalasis for transplanting one irrigated plot, and they usually complete two per day. Each woman thus earns eight dalasis instead of five (US\$0.70), the daily wage labor rate; *ibid.*

The rice programs of the colonial and postcolonial states in The Gambia can be understood as a project to construct a reliable, hardworking paddy-field peasantry. As Keith Hart points out, agricultural intensification, particularly in wet rice production, is characteristically a coercive process that means getting people to work harder.⁷⁹ In the Mandinka case, our historical reconstruction of successive rice import-substitution strategies reveals how uneven and contradictory the process of intensifying and disciplining labor has been. The desire to expand domestic rice production in The Gambia confronted the existing structure of precapitalist property relations and raised the question of who was to work under what conditions. In the first phase, the strict sexual division of labor by commodity proved unbreachable, and when men balked at growing rice, women worked harder and longer hours in the newly opened rice swamps. The physical limits of women's capacity to work in the rice swamps in relation to other demands on their time represented a stumbling block that could be overcome only by a radical change in labor productivity. Specifically, this took the form of mechanized irrigation and double-cropping, haltingly introduced from the 1950s onward.

While men have been incorporated gradually into rice growing—most especially dry season production—women's labor power and their knowledge of rice agro-ecology remains central. More fundamentally, however, state efforts to expand rice output—whether through land-extensive, labor-intensive swamp cultivation or through land-intensive, mechanized double-cropping—has ignited struggles over access to and control over household resources. While generational and other domestic conflicts also figure significantly, it is gender-based intrahousehold struggles—and the renegotiation of conjugality in particular—that strike to the heart of the state's desire to create a paddy-field peasantry. Gender-based struggles over property, labor, and conditions of work are not simply additions to the debate over agricultural intensification; rather, they are constitutive of it. They have shaped, and are shaping, the character and the trajectory of agrarian change itself.

The impact of a new technological innovation in the 1980s in the form of irrigated contracting in Jahaly Pacharr has radically perturbed the internal structure of Mandinka households, deepening and intensifying contestation in the domestic arena. A full understanding of these contests, however, requires that we open the black box of the household and examine the circuits of economic, symbolic, and cultural capital that lie inside. The multiplex con-

⁷⁹ Keith Hart, *The Political Economy of West African Agriculture* (Cambridge: Cambridge University Press, 1982), 48.

flicts generated by the Jahaly Pacharr project have suggested two important analytical questions. The first is why the domestic and specifically the conjugal arena appears so central in Mandinka responses to rice mechanization; and the second is what the connections are between domestic politics and larger, perhaps community, regional, or class, politics. To the first question, we have offered a largely theoretical answer fusing two realms: the labor process and a theory of household or family enterprise. The characteristic unity of labor and property in peasant forms of production raises the possibility, realized under contract farming, of condensing production and family politics into the one sphere, the domestic arena. As Harriet Friedmann so aptly puts it, "The family enterprise is a battleground over patriarchy where property is immediately at stake."⁸⁰ The new labor process at Jahaly Pacharr immediately placed those property, and hence labor, relations at stake; indeed, it raised the stakes. The project was therefore immediately and decisively politicized at the point of production. In view of the recent history of land-labor conflicts in The Gambia, the domestic struggles necessarily were explosive and primary as rice production was developed under new contractual and comparatively regimented work conditions.

The second question on linkages is more complex. On the one hand, the struggles should not be construed narrowly as solely gender-based or intrafamilial, since they do indeed spill out of the household altogether. Even before the first green revolution seeds were sown, Jahaly women organized a deputation to the Minister of Cooperatives;⁸¹ later, they petitioned the management for access to tidal fields, took some land claims into the local courts,⁸² and, not least, explicitly saw their gang labor as political by collectively bargaining up their daily wage rates. In at least one village, the attractiveness of project plots has also seemingly intensified longstanding ethnic tensions between Mandinka and Fula communities. Some of the connections to wider social interest are less in evidence, although this may reflect the relative recency of the project. Local producers have not organized into grower associations or used their local cooperatives or political parties as mediators between the management or the state and growers as in other contract farming schemes.⁸³ In part this failure to organize may

⁸⁰ Harriet Friedmann, "Patriarchy and Property," *Sociologia Ruralis* 36, no. 2 (1986): 186–93, esp. 192.

⁸¹ Watts, *Manufacturing Dissent* (n. 17 above).

⁸² Carney, *Contract Farming in Irrigated Rice Production*, 23.

⁸³ Michael Watts, "Peasants under Contract: Agro-Food Complexes in the Third World," in *The Food Question*, ed. Henry Bernstein, Ben Crow, Maureen Mackintosh, and Charlotte Martin (London: Monthly Review Press, 1990), 149–62.

reflect the fact that The Gambia, like many sub-Saharan countries, historically has no landlord class, and while the project has appropriated the land on lease there is much confusion among producers about what this means in practice. The project feels that peasants have no proprietary claims to the land and hence can be removed from the project in the event of low productivity or contract contravention. Conversely, farmers uniformly believe that irrigated plots are still owned by the compound. By 1989, no peasants were terminated and hence the point remains moot.

Land tenure and eviction, however, potentially constitute a crucible in which wider social conflicts may be forged. The management has already warned growers of contractual problems (such as late weeding practices); these growers are almost uniformly male Mandinka farmers strapped by the withdrawal of their wives' labor and unable to meet the strictures of the management work routines.⁸⁴

There are also some institutions that explicitly connect domestic and larger arenas, the most obvious being Islam. Recognizing that appropriate familial behavior is often measured according to the notion of a good Muslim, Gambian management articulates expectations in an Islamic vocabulary of largesse and justice. At the same time, women invoke internal cultural debates within Islam pertaining to gender and women's status in the Muslim world to negotiate and sanction their own claims. Nonetheless, until the project dramatically transforms local socioeconomic differentiation, and until the state acts upon its juridical power to remove peasants from their land, the possibility of a more inclusive horizontal vectoring of interests and the genesis of oppositional interests on a larger scale must remain somewhat remote.

The primacy of domestic and local gender struggles at this moment in the unfolding of Gambian rice mechanization should not obscure the extent to which the internal debates on the household terrain are not solely local and familial. Indeed, the Jahaly Pacharr case reveals how the organization of households around patriarchal power derives support from the state, both through the bureaucratic demands of state organization and through the devolution of power to adult males by state-run development schemes. Such state power is nonetheless contested, with the outcome producing complex reconfigurations in the asymmetrical relations within households. Successive efforts to produce a disciplined female paddy peasantry in The Gambia reveal in this regard

⁸⁴ In fact, the project management sees many male Mandinka farmers as "lazy," as "poor farmers" endowed with a cultural preference for leisure over hard work.

that analyses of agrarian transformation must grasp not only how larger political economic structures frame the domestic terrain of conflict but simultaneously how domestic struggles shape certain social and political processes that may challenge in limited ways the structures themselves.⁸⁵

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⁸⁵ There are some striking similarities between Jahaly Pacharr and the rice schemes in Malaysia, notably Muda, in which labor intensification in relation to gender is central; see Gillian Hart, "Disaggregating the Household: Gender, Kinship and the Dynamics of Agrarian Change" (Harvard Institute for International Development, Cambridge, 1988, typescript). This argument is developed in Michael Watts, "The Agrarian Question in Africa: Debating the Crisis," *Progress in Human Geography* 13, no. 1 (1989): 1–41, and *Manufacturing Dissent*.