

# Supporting Information

Moseley et al. 10.1073/pnas.09057171107

## SI Text

**Discussion.** Interviews with civil servants in 2000 revealed an acute awareness of the importance of the CMDT. For example, a common refrain was “Grâce à la CMDT, nos fonctionnaires sont payés” [because of the CMDT, our civil servants are paid]. When the CFA franc (the common currency in francophone West Africa) was devalued in 1994 by 50%, the price for cotton in local currency immediately rose. The government captured much of this surplus, only passing on some to farmers. However, the rise in cotton producer prices was enough to spur production. Cotton production rose steadily in the 1990s, surpassing 500,000 tons per annum in several years between 1998 and 2004 (during which time Mali was often the leading cotton producer in sub-Saharan Africa).

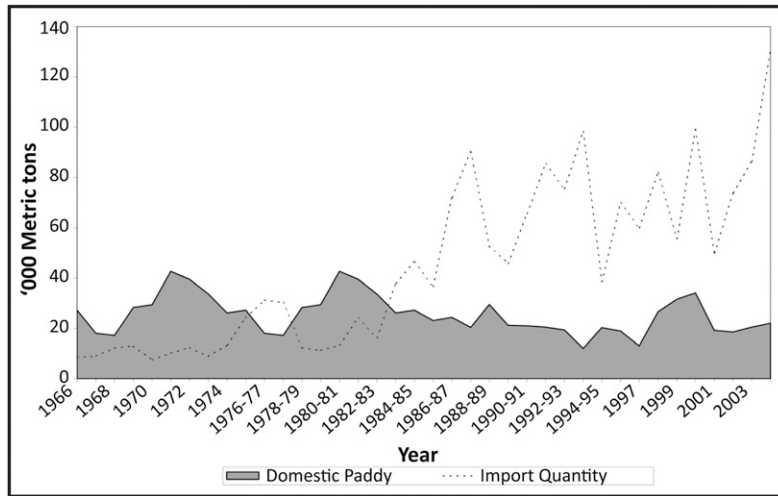
## S2 Text

**Discussion.** According to the CMDT, cotton production increases sorghum production when the two crops are rotated from year to year on the same plot. Cotton provides the revenue to purchase inputs. Sorghum then benefits from the residual fertilizer in off years. This appears to be what is happening for the wealthiest of households. Wealthier households are also larger, averaging 20.1 working-aged persons, compared with 10.6 and 6.9 working-aged persons for intermediate and poor households, respectively. This means that wealthier households also have sufficient labor to maintain food crop and cotton fields. Poorer and intermediate wealth households often compromise labor inputs to food crop fields as they expand cotton production. Poorer and intermediate

wealth households also are less able to invest in fertilizer, meaning that the sorghum crop has less residual fertilizer to benefit from in off years. Finally, although the currency devaluation did increase the producer price for cotton, it also led to substantial price increases in inputs, further encouraging the underuse of fertilizers.

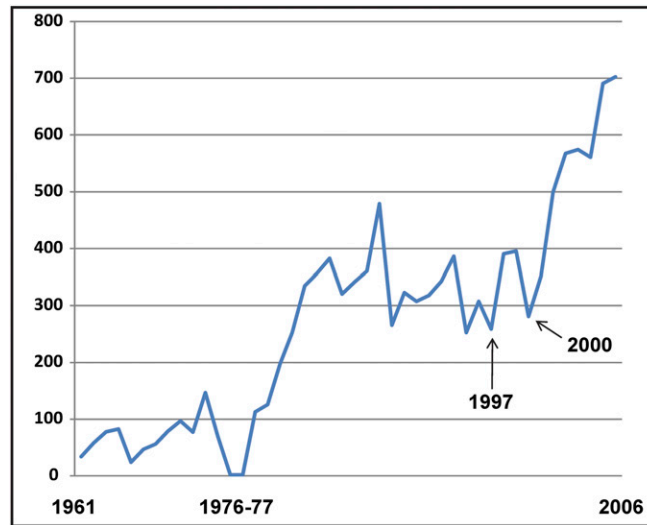
## S3 Text

**Methods.** Semistructured interviews were conducted in the local language (Bamanan) with 30 urban and 30 rural households in July 2009. Urban households were selected at random from four neighborhoods in Bamako: Badialan III, Bankoni, Niamkoro, and Sabalibougou. Badialan III and Bankoni are older neighborhoods on the north side of the river and are primarily composed of households that have been in Bamako for a generation or more. Niamakoro and Sabalibougou are newer neighborhoods on the south side of the river and are largely composed of more recent arrivals. According to key informants, Badialan III is considered more of a middle-class neighborhood, whereas Bankoni, Niamakoro, and Sabalibougou are considered to be poorer. Rural interviews, also with randomly selected households, were conducted in three villages (Falan, Zambougou, and Nianzana) in the commune of Sanankoroba. These villages are located  $\approx 80$  km to the southeast of Bamako. Agriculture in this area is dominated by coarse grain production (sorghum and maize), peanuts, and cotton. Rice is grown by women in seasonal wetlands. Interviews were conducted with at least two family members per household and took from 40 to 60 min.



**Fig. S1.** Gambian rice imports and domestic production based on data from the Government of The Gambia.

1. Government of The Gambia (1974–2004) Sample surveys of agricultural production (Central Statistics Dept, Banjul).
2. Government of The Gambia (1989–2003) Rice Imports data (Gambia Ports Authority, Banjul).



**Fig. S2.** Rice imports, Côte d'Ivoire, 1961–2006 (thousands of tons) based on data from the Food and Agriculture Organization.

1. Food and Agriculture Organization (2009) FAOSTAT. Database. Available at <http://faostat.fao.org/site/535/DesktopDefault.aspx?PageID=535#ancor>.

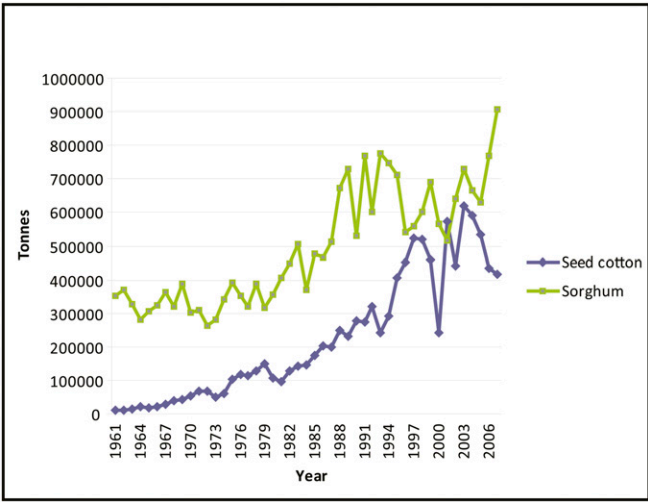


Fig. S3. Sorghum and seed cotton production based on data from the Food and Agriculture Organization.

1. Food and Agriculture Organization (2009) FAOSTAT. Database. Available at <http://faostat.fao.org/site/535/DesktopDefault.aspx?PageID=535#ancor>.

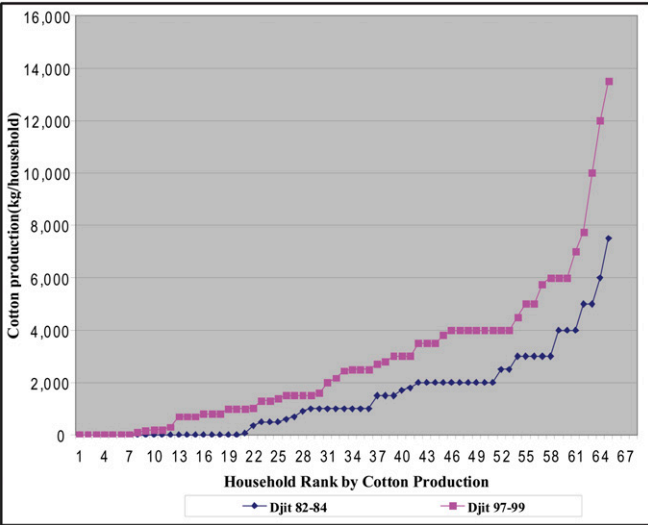


Fig. S4. Cotton production in Djitoumou (Djit), Mali (1982–1984 vs. 1997–1999) based on fieldwork and surveys in 2000.

**Table S1. Mill services in Côte d'Ivoire's regional rice producer-processor networks, 2002**

Regional rice network	Total no. mills operating	Dehusking fee, CFA francs per kilogram	Percent mills providing credit	Percent mills owning vehicle to transport paddy rice
Abidjan hinterland	114	15–25 (US \$0.02–0.03)	70	27
Man-Danané	25	10–25 (US \$0.01–0.03)	21	14
Bouaké-Korhogo	9	10–15 (US \$0.01–0.02)	55	33
Daloa and Center-West	49	25 (US \$0.03)	18	18

Source: fieldwork and surveys, 2002.

**Table S2. Surplus food production (months of household food needs) in Djitoumou, Mali**

Wealth group	Sample size	1982–1984	1997–1999	Change
Poor	40	2.52 mo	0.60 mo	–76%
Intermediate	18	5.16 mo	1.08 mo	–79%
Rich	7	1.56 mo	2.16 mo	+38%
Average	65	3.00 mo	0.96 mo	–68%

Source: fieldwork and surveys, 2000.