

Let's Work: Value Chain Based Job Creation

Study Design Report

Volume 1 Annex: Background and Market Trends

Prepared for

More & Better Jobs in Mozambique

Prepared by



Global Development Solutions, LLC

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*Let's Work: Value Chain Based Job Creation
Study Design Report
Volume 1 Annex: Background Market Trends*

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Annex 1: Cashew Production and Trade

Production. Globally, 4.4 million tons of cashews were produced in 2013, on 5.5 million hectares of harvested area. Leading producers by volume in 2013 included Vietnam, Nigeria and India, while leading producers by harvested area included India, Cote d'Ivoire and Brazil. In 2013, Mozambique ranked 12th in both production quantity and harvested area. Global volume increased 10.2% from 2009 to 2013, while harvested area has remained flat, indicating greater yield rates; such increase can come from improved cultivation practices and/or new trees reaching maturity.

Leading Global Producers of Cashew Nuts with Shell by Production Quantity

	Country	Production quantity (tons)					Percent of 2013	Change 2009-2013
		2009	2010	2011	2012	2013		
1	Viet Nam	1,165,600	1,242,000	1,237,300	1,190,900	1,110,800	25.0%	-4.7%
2	Nigeria	800,000	830,000	835,000	900,000	950,000	21.4%	18.8%
3	India	695,000	613,000	674,600	725,000	753,000	17.0%	8.3%
4	Côte d'Ivoire	350,000	380,000	393,000	450,000	450,000	10.1%	28.6%
5	Benin	117,000	102,137	162,986	170,000	180,000	4.1%	53.8%
6	Philippines	111,993	134,681	133,388	132,541	146,289	3.3%	30.6%
7	Guinea-Bissau	123,000	104,000	130,000	130,000	138,195	3.1%	12.4%
8	Tanzania	79,100	74,170	121,070	160,000	127,947	2.9%	61.8%
9	Indonesia	147,403	115,149	114,789	116,915	117,400	2.6%	-20.4%
10	Burkina Faso	6,700	20,800	95,000	60,000	115,000	2.6%	1616.4%
12	Mozambique	64,000	96,558	112,796	64,731	65,000	1.5%	1.6%
	Other	369,553	253,604	391,101	254,025	286,329	6.4%	-22.5%
	World	4,029,349	3,966,099	4,401,030	4,354,112	4,439,960	100.0%	10.2%

Ranked by 2013 production quantity.

Source: FAOSTAT

Leading Global Producers of Cashew Nuts with Shell by Harvested Area

	Country	Area harvested (ha)					Percent of 2013	Change 2009-2013
		2009	2010	2011	2012	2013		
1	India	893,000	923,000	953,200	979,000	992,000	18.2%	11.1%
2	Côte d'Ivoire	964,423	860,000	877,813	900,000	900,000	16.5%	-6.7%
3	Brazil	758,085	758,988	764,472	756,846	695,289	12.7%	-8.3%
4	Indonesia	572,870	569,900	574,800	574,900	575,200	10.5%	0.4%
5	Benin	600,000	340,459	465,675	468,000	485,000	8.9%	-19.2%
6	Tanzania	391,350	249,090	406,597	410,641	410,583	7.5%	4.9%
7	Nigeria	360,000	360,000	365,000	375,000	380,000	7.0%	5.6%
8	Viet Nam	340,500	339,400	331,300	305,791	300,856	5.5%	-11.6%
9	Guinea-Bissau	218,000	218,002	222,517	223,000	247,674	4.5%	13.6%
10	Burkina Faso	10,000	30,000	100,000	70,000	120,000	2.2%	1100.0%
12	Mozambique	77,000	110,000	140,000	80,000	80,000	1.5%	3.9%
	Other	241,895	242,680	264,322	268,842	270,407	5.0%	11.8%
	World	5,427,123	5,001,519	5,465,696	5,412,020	5,457,009	100.0%	0.6%

Ranked by 2013 harvested area.

Source: FAOSTAT

Among the 16 reported African producers of cashew nuts, Mozambique ranked 7th in 2013 with 65,000 tons reported by FAOSTAT, or 3.0% of the continent's production. Nigeria, Cote d'Ivoire and Benin are the leading producers in Africa. Burkina Faso production has increased significantly in recent years (1616%), and production volume surpassed that of Mozambique in 2013; as such, the country appears poised to present significant regional competition.

African Producers of Cashew Nuts with Shell by Production Quantity

Country	Production quantity (tons)					Percent of 2013	Change 2009-2013
	2009	2010	2011	2012	2013		
1 Nigeria	800,000	830,000	835,000	900,000	950,000	44.4%	18.8%
2 Côte d'Ivoire	350,000	380,000	393,000	450,000	450,000	21.0%	28.6%
3 Benin	117,000	102,137	162,986	170,000	180,000	8.4%	53.8%
4 Guinea-Bissau	123,000	104,000	130,000	130,000	138,195	6.5%	12.4%
5 Tanzania	79,100	74,170	121,070	160,000	127,947	6.0%	61.8%
6 Burkina Faso	6,700	20,800	95,000	60,000	115,000	5.4%	1616.4%
7 Mozambique	64,000	96,558	112,796	64,731	65,000	3.0%	1.6%
8 Ghana	27,000	30,000	36,000	40,500	44,500	2.1%	64.8%
9 Kenya	17,683	17,568	20,927	29,026	30,000	1.4%	69.7%
10 Guinea	7,497	7,100	8,458	8,500	8,600	0.4%	14.7%
11 Madagascar	5,913	5,605	6,677	7,000	7,000	0.3%	18.4%
12 Togo	3,500	4,900	6,700	6,800	6,999	0.3%	100.0%
13 Senegal	5,500	6,000	6,500	6,650	6,346	0.3%	15.4%
14 Mali	2,873	2,900	3,600	3,600	3,800	0.2%	32.3%
15 Gambia	3,800	400	2,750	2,800	2,676	0.1%	-29.6%
16 Angola	2,113	1,750	2,085	2,000	1,980	0.1%	-6.3%
Africa	1,615,679	1,683,888	1,943,549	2,041,607	2,138,043	100.0%	32.3%

Ranked by 2013 production quantity.

Source: FAOSTAT

Exports. Leading exporters of cashew nuts with shell include Cote d'Ivoire, Benin, Tanzania, Nigeria and Ghana, who together accounted for nearly 80% of all exports in 2012. Mozambique ranked 11th with 4,554 tons and 0.4% of global export quantity of cashew nuts with shell in 2012. While global exports of the product grew 70.5% from 2008 to 2012, Mozambique's exports fell 56.5%.

Leading Global Exporters of Cashew Nuts, with Shell, by Export Quantity

Country	Export quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012		
1 Côte d'Ivoire	312,229	340,318	349,949	278,320	409,814	35.3%	31.3%
2 Benin	56,463	57,220	57,704	121,497	161,820	13.9%	186.6%
3 Tanzania	52,743	95,577	102,707	99,425	130,882	11.3%	148.2%
4 Nigeria	16,112	18,651	6,611	14,077	118,977	10.2%	638.4%
5 Ghana	70,032	44,553	32,043	145,013	102,352	8.8%	46.2%
6 Guinea-Bissau	88,617	127,090	52,253	139,723	93,981	8.1%	6.1%
7 Indonesia	56,587	60,628	38,484	41,973	58,928	5.1%	4.1%
8 Burkina Faso	134	8,722	18,532	81,274	45,718	3.9%	34017.9%
9 Guinea	6,240	6,000	7,672	21,884	8,639	0.7%	38.4%
10 Mali	2,788	2,148	2,194	2,575	8,154	0.7%	192.5%
11 Mozambique	10,468	25,278	3,883	35,802	4,554	0.4%	-56.5%
Other	8,521	12,617	9,633	16,820	17,307	1.5%	103.1%
World	680,934	798,802	681,665	998,383	1,161,126	100.0%	70.5%

Ranked by 2012 import quantity (most recent year available).

Source: FAOSTAT

Vietnam and India dominate global exports of shelled cashew nuts, with 52.7% and 24.2%, respectively, of 2012 global export quantity. Mozambique ranked 10th with 2,641 tons and 0.6% of global export quantity in 2012. Global export volume has remained relatively flat, increasing only 3.8% during 2008 to 2012.

Leading Global Exporters of Cashew Nuts, Shelled, by Export Quantity

Country	Export quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012		
1 Viet Nam	160,839	177,200	194,622	178,500	221,483	52.7%	37.7%
2 India	125,486	117,362	92,598	133,400	101,866	24.2%	-18.8%
3 Netherlands	26,698	29,777	35,097	29,478	31,088	7.4%	16.4%
4 Brazil	35,410	47,760	42,174	26,302	25,334	6.0%	-28.5%
5 Ghana	NA	3,821	1,471	222	6,777	1.6%	NA
6 Germany	4,851	3,892	4,246	3,928	4,181	1.0%	-13.8%
7 Indonesia	10,403	7,628	7,109	4,054	3,667	0.9%	-64.8%
8 Tanzania	7,725	4,874	5,043	17,158	3,355	0.8%	-56.6%
9 Burkina Faso	61	288	412	2,797	3,075	0.7%	4941.0%
10 Mozambique	3,346	3,935	3,706	3,464	2,641	0.6%	-21.1%
Other	29,850	15,976	16,577	17,122	16,757	4.0%	-43.9%
World	404,669	412,513	403,055	416,425	420,224	100.0%	3.8%

Ranked by 2012 import quantity (most recent year available).

Source: FAOSTAT

Imports. Import volume of cashew nuts with shell is about 1.3 to 2.5 times that of cashew nuts shelled. Global import of cashew nut with shell is limited almost entirely to India (91.3% of 2012 global import quantity) and Brazil (6.6%).

Leading Global Importers of Cashew Nuts, with Shell, by Import Quantity

Country	Import quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012		
1 India	612,959	752,463	448,829	798,281	821,648	91.3%	34.0%
2 Brazil	9,467	4,472	0	43,698	59,450	6.6%	528.0%
3 China	694	925	1,372	943	7,072	0.8%	919.0%
4 France	2,162	2,101	2,034	2,317	1,784	0.2%	-17.5%
5 United Arab Emirates	9	2,498	4,532	4,324	1,304	0.1%	14388.9%
6 Saudi Arabia	0	407	947	1,125	1,264	0.1%	NA
7 Ghana	93	181	24	4,500	1,002	0.1%	977.4%
8 Sri Lanka	246	923	179	1,205	953	0.1%	287.4%
9 Egypt	63	319	68	121	784	0.1%	1144.4%
10 USA	1,189	1,282	2,156	1,134	746	0.1%	-37.3%
Other	5,675	7,274	9,481	6,812	3,730	0.4%	-34.3%
World	632,557	772,845	469,622	864,460	899,737	100.0%	42.2%

Ranked by 2012 import quantity (most recent year available).

No imports of cashew nuts with shell were reported for 2008-2012 for Mozambique.

Source: FAOSTAT

Import volume of shelled cashew nuts is relatively fragmented, demonstrating wide-spread demand for shelled cashews. Leading importers include USA (31.6% of import quantity in 2012), Netherlands (11.8%) and Germany (7.3%); however, countries outside the top 10 comprise 27.2% of world import demand. Mozambique is self-sufficient in cashew production and ranked 127th for import volume of shelled cashew nuts in 2013.

Leading Global Importers of Cashew Nuts, Shelled, by Import Quantity

Country	Import quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012		
1 USA	112,415	116,934	119,113	104,774	109,104	31.6%	-2.9%
2 Netherlands	49,320	46,615	41,271	41,602	40,870	11.8%	-17.1%
3 Germany	19,175	22,886	25,447	24,084	25,159	7.3%	31.2%
4 Australia	14,697	13,952	15,041	13,113	15,326	4.4%	4.3%
5 United Kingdom	19,265	16,422	12,922	11,806	13,175	3.8%	-31.6%
6 United Arab Emirates	18,120	20,116	15,315	28,589	11,553	3.3%	-36.2%
7 Canada	10,210	9,228	9,419	8,387	10,198	3.0%	-0.1%
8 Russian Federation	8,927	5,945	8,243	8,358	9,806	2.8%	9.8%
9 China	28,114	38,507	26,649	13,045	8,960	2.6%	-68.1%
10 Japan	6,171	6,101	6,644	6,190	7,602	2.2%	23.2%
127 Mozambique	NA	NA	NA	NA	1	0.0%	NA
Other	76,971	78,009	83,229	78,311	93,868	27.2%	22.0%
World	363,385	374,715	363,293	338,259	345,622	100.0%	-4.9%

Ranked by 2012 import quantity (most recent year available).

Source: FAOSTAT

Producer prices. Limited information is available regarding global producer prices for cashew. FAOSTAT reports producer prices for only 8 cashew-producing countries in 2013, although it reports production quantity for 33 countries in 2013. Nevertheless, cashew prices indicate an overall upward trend, with producer prices among reported cashew producers increasing on average by 22.9% during the period 2009-2013. Regionally, Kenya showed the greatest increase (up 84.5%). While the global average indicated USD1,169/ton in 2013, high values in China and

Sri Lanka may be skewing the mean. Within Africa, 2013 reported producer prices are in the range of USD457 to 474 per ton.

Global Producer Prices, Cashew Nuts, With Shell

Country	Annual producer price (USD/ton)					Change
	2009	2010	2011	2012	2013	2009-2013
China	5,710.10	6,129.99	7,275.54	11,885.90	3,712.53	-35.0%
Côte d'Ivoire	263.29	NA	NA	NA	NA	NA
Indonesia	331.50	480.45	832.83	884.43	NA	NA
Kenya	257.15	253.04	339.35	387.08	474.41	84.5%
Mexico	308.52	325.49	325.68	321.62	353.82	14.7%
Nigeria	NA	484.10	439.80	480.99	457.40	NA
Peru	99.67	99.29	98.18	125.00	148.23	48.7%
Philippines	567.65	563.89	619.95	693.91	684.85	20.6%
Senegal	424.66	424.79	434.85	NA	NA	NA
Sri Lanka	1,017.23	1,361.34	2,022.43	1,812.69	2,546.51	150.3%
Thailand	772.98	NA	NA	NA	NA	NA
Viet Nam	707.93	777.40	1,033.07	998.40	975.83	37.8%
Average	950.97	1,089.98	1,342.17	1,954.45	1,169.20	22.9%

Countries listed are the only ones reported by FAOSTAT for the period shown.

No producer prices for cashew nuts with shell were reported for 2009-2013 for Mozambique.

Average shown is the straight average of countries' prices in the database.

Source: FAOSTAT

Annex 2: Cassava Production and Trade

Production. Globally, 277 million tons of cassava were produced in 2013, on 20.4 million hectares of harvested area. Leading producers by volume in 2013 included Nigeria, Thailand and Indonesia, while leading producers by harvested area included Nigeria, DR Congo and Brazil. Mozambique ranked 8th in production quantity and 9th in harvested area in 2013. Global production volume increased 16.6% from 2009 to 2013, while harvested area increased 5.2%, pointing to likely improvements in cultivation practices and yield rates. Such trend is particularly evident in Nigeria, where production volume has grown at a rate twice that of change in harvested area. Mozambique has managed to increase production volume by 76.4% on declining harvested area from 2009 to 2013; however given rounded figures, the data appear to estimates for 2013.

Leading Global Producers of Cassava by Production Quantity

Country	Production quantity (tons)					Percent of 2013	Change 2009-2013
	2009	2010	2011	2012	2013		
1 Nigeria	36,822,250	42,533,180	46,190,250	50,950,291	53,000,000	19.2%	43.9%
2 Thailand	30,088,024	22,005,740	21,912,416	29,848,000	30,228,000	10.9%	0.5%
3 Indonesia	22,039,148	23,918,118	24,044,025	24,177,372	23,936,921	8.6%	8.6%
4 Brazil	24,403,981	24,967,052	25,349,542	23,044,557	21,484,218	7.8%	-12.0%
5 DR Congo	15,054,450	15,013,710	15,024,172	16,000,000	16,500,000	6.0%	9.6%
6 Angola	12,827,580	13,858,681	14,333,509	10,636,400	16,411,674	5.9%	27.9%
7 Ghana	12,230,600	13,504,086	14,240,867	14,547,279	15,989,940	5.8%	30.7%
8 Mozambique	5,670,000	9,738,066	10,093,619	10,051,364	10,000,000	3.6%	76.4%
9 Viet Nam	8,530,500	8,595,600	9,897,913	9,745,546	9,757,681	3.5%	14.4%
10 Cambodia	3,497,306	4,247,419	8,033,843	7,613,697	8,000,000	2.9%	128.7%
Other	66,272,508	64,670,868	66,275,546	69,513,900	71,453,625	25.8%	7.8%
World	237,436,347	243,052,520	255,395,702	266,128,406	276,762,059	100.0%	16.6%

Ranked by 2013 production quantity.

Source: FAOSTAT

Leading Global Producers of Cassava by Harvested Area

Country	Area harvested (ha)					Percent of 2013	Change 2009-2013
	2009	2010	2011	2012	2013		
1 Nigeria	3,129,030	3,481,900	4,120,166	6,401,996	3,800,000	18.6%	21.4%
2 DR Congo	1,852,902	1,854,754	1,860,000	1,980,000	2,050,000	10.1%	10.6%
3 Brazil	1,760,578	1,789,769	1,733,541	1,692,986	1,525,918	7.5%	-13.3%
4 Thailand	1,326,743	1,168,454	1,135,388	1,362,080	1,385,120	6.8%	4.4%
5 Angola	845,259	889,619	1,072,478	1,062,865	1,167,948	5.7%	38.2%
6 Indonesia	1,175,666	1,183,047	1,184,696	1,129,688	1,065,752	5.2%	-9.3%
7 Ghana	885,800	875,013	889,364	868,550	875,185	4.3%	-1.2%
8 Tanzania	1,081,384	873,000	739,794	954,509	863,678	4.2%	-20.1%
9 Mozambique	1,254,000	1,254,294	1,293,568	762,598	780,000	3.8%	-37.8%
10 Viet Nam	507,800	498,000	558,173	550,810	544,107	2.7%	7.1%
Other	5,572,039	5,773,163	6,000,755	6,131,682	6,335,107	31.1%	13.7%
World	19,391,201	19,641,013	20,587,923	22,897,764	20,392,815	100.0%	5.2%

Ranked by 2013 harvested area.

Source: FAOSTAT

Among the 40 reported African producers of cashew nuts, Mozambique ranked 5th in 2013 with 10 million tons reported by FAOSTAT, or 6.3% of the continent's production. Nigeria, DR Congo and Angola are the leading producers in Africa. Overall within Africa, production volume increased 28.1% from 2009 to 2013, well outpacing the global growth rates of 5.2% for the same period.

African Producers of Cassava by Production Quantity

Country	Production quantity (tons)					Percent of 2013	Change 2009-2013
	2009	2010	2011	2012	2013		
1 Nigeria	36,822,250	42,533,180	46,190,250	50,950,291	53,000,000	33.6%	43.9%
2 DR Congo	15,054,450	15,013,710	15,024,172	16,000,000	16,500,000	10.5%	9.6%
3 Angola	12,827,580	13,858,681	14,333,509	10,636,400	16,411,674	10.4%	27.9%
4 Ghana	12,230,600	13,504,086	14,240,867	14,547,279	15,989,940	10.1%	30.7%
5 Mozambique	5,670,000	9,738,066	10,093,619	10,051,364	10,000,000	6.3%	76.4%
6 Uganda	5,179,000	5,282,000	4,757,800	4,924,560	5,228,000	3.3%	0.9%
7 Malawi	3,823,236	4,000,986	4,259,301	4,692,202	4,813,699	3.1%	25.9%
8 Tanzania	5,916,440	4,547,940	4,646,523	5,462,454	4,755,160	3.0%	-19.6%
9 Cameroon	3,340,562	3,808,239	4,082,903	4,287,177	4,596,383	2.9%	37.6%
10 Sierra Leone	2,814,576	3,250,044	3,460,357	3,585,172	3,810,418	2.4%	35.4%
11 Benin	3,787,918	3,444,950	3,645,924	3,295,785	3,695,514	2.3%	-2.4%
12 Madagascar	3,019,966	3,008,886	3,490,300	3,621,309	3,114,578	2.0%	3.1%
13 Rwanda	2,019,741	2,377,213	2,579,000	2,716,421	2,948,121	1.9%	46.0%
14 Côte d'Ivoire	2,262,170	2,306,839	2,359,015	2,412,371	2,436,495	1.5%	7.7%
15 Burundi	586,143	598,409	508,739	1,244,607	2,233,790	1.4%	281.1%
16 Congo	1,231,000	1,148,500	1,150,000	1,200,000	1,250,000	0.8%	1.5%
17 Guinea	1,051,290	1,100,000	1,112,585	1,200,000	1,200,000	0.8%	14.1%
18 Kenya	819,967	323,389	679,167	893,122	1,112,420	0.7%	35.7%
19 Zambia	1,160,853	1,151,700	1,086,870	1,062,040	1,070,000	0.7%	-7.8%
20 Togo	895,655	908,755	998,540	959,889	902,860	0.6%	0.8%
Other	2,562,904	2,495,180	2,549,128	2,679,438	2,649,900	1.7%	3.4%
Africa	123,076,301	134,400,753	141,248,569	146,421,881	157,718,952	100.0%	28.1%

Ranked by 2013 production quantity.

Source: FAOSTAT

Exports. Costa Rica was the only country with reported cassava exports per FAOSTAT during 2008 to 2012. The form of cassava exported was not specified.

Leading Global Exporters of Cassava, by Export Quantity

Country	Export quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012		
1 Costa Rica	64,886	62,989	66,972	61,760	67,130	100.0%	3.5%
Other	0	0	0	0	0	0.0%	NA
World	64,886	62,989	66,972	61,760	67,130	100.0%	3.5%

Ranked by 2012 import quantity (most recent year available).

No other countries reported cassava exports.

Source: FAOSTAT

Nearly all of dried cassava exports originate from Thailand and Vietnam, who together accounted for 98% of all export quantity in 2012. Mozambique ranked 95th in 2013 and did not reported significant export volume during 2008 to 2012. FAOSTAT did not report exports for other forms of cassava.

Leading Global Exporters of Cassava, Dried, by Export Quantity

Country	Export quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012		
1 Thailand	2,882,846	4,357,294	4,273,380	3,735,209	4,697,243	64.9%	62.9%
2 Viet Nam	753,335	3,301,915	1,700,440	2,680,178	2,386,339	33.0%	216.8%
3 Indonesia	129,696	168,062	145,217	105,331	40,550	0.6%	-68.7%
4 Cambodia	0	0	2,400	9,350	35,159	0.5%	NA
5 Costa Rica	10,298	18,479	25,136	23,374	25,476	0.4%	147.4%
6 Paraguay	2,300	0	30,825	22,300	15,870	0.2%	590.0%
7 Netherlands	234,250	10,696	11,297	7,990	9,358	0.1%	-96.0%
8 Mexico	6,148	9,347	9,089	6,069	4,143	0.1%	-32.6%
9 Nicaragua	4,440	4,165	2,618	4,347	3,230	0.0%	-27.3%
10 Sri Lanka	2,582	3,432	3,396	3,486	2,732	0.0%	5.8%
95 Mozambique	1	1	1	1	0	0.0%	-100.0%
Other	59,762	23,455	25,979	20,942	16,248	0.2%	-72.8%
World	4,085,658	7,896,846	6,229,778	6,618,577	7,236,348	100.0%	77.1%

Ranked by 2012 import quantity (most recent year available).

Source: FAOSTAT

Imports. FAOSTAT reported imports of dried cassava and cassava starch. During 2012, the leading importers of dried cassava included China, (responsible for nearly 82% of all dried cassava globally), Thailand (9.4%) and Republic of Korea (6.5%). All other countries reported less than 1.1% of global import volume. Mozambique did not report any dried cassava imports during 2008 to 2012.

Leading Global Importers of Cassava, Dried, by Import Quantity

	Country	Import quantity (tons)					Percent of 2012	Change 2008-2012
		2008	2009	2010	2011	2012		
1	China	2,003,718	6,116,992	5,762,872	5,027,055	7,138,893	81.6%	256.3%
2	Thailand	85,288	324,172	130,645	309,858	819,564	9.4%	860.9%
3	Republic of Korea	899,724	551,734	293,247	329,339	566,026	6.5%	-37.1%
4	USA	59,454	61,991	64,732	62,769	93,533	1.1%	57.3%
5	Japan	36,750	31,872	20,605	31,455	31,814	0.4%	-13.4%
6	Brazil	2,124	0	25,287	23,358	15,175	0.2%	614.5%
7	Indonesia	23	1,903	21	30	13,291	0.2%	57687.0%
8	Netherlands	116,260	17,322	10,778	11,587	11,590	0.1%	-90.0%
9	Uganda	1,655	20,319	24	877	10,283	0.1%	521.3%
10	Spain	271,984	9,592	8,943	7,939	7,628	0.1%	-97.2%
	Other	420,695	52,865	63,027	50,904	39,908	0.5%	-90.5%
	World	3,897,675	7,188,762	6,380,181	5,855,171	8,747,705	100.0%	124.4%

Ranked by 2012 import quantity (most recent year available).

No imports of cassava, dried, were reported for 2008-2012 for Mozambique.

Source: FAOSTAT

Leading importers of cassava starch during 2012 included China, Indonesia and Malaysia. Global cassava starch import volume grew 83.7% from 2008 to 2012. Mozambique reported limited import of cassava starch (2 tons in 2012) and ranked 102nd for 2012 global import volume. Regionally, South Africa imports fell 25.3% from 2008 to 2012, though with 18,661 tons, the country still ranked in the top 10 for import volume as of 2012.

Leading Global Importers of Cassava Starch, by Import Quantity

	Country	Import quantity (tons)					Percent of 2012	Change 2008-2012
		2008	2009	2010	2011	2012		
1	China	735,667	1,227,274	1,055,332	1,227,818	1,405,243	48.6%	91.0%
2	Indonesia	158,077	166,813	294,832	435,419	757,926	26.2%	379.5%
3	Malaysia	121,240	167,463	178,331	182,041	184,685	6.4%	52.3%
4	Japan	150,331	137,053	105,344	133,966	155,983	5.4%	3.8%
5	Philippines	72,353	91,784	58,363	54,123	62,578	2.2%	-13.5%
6	USA	34,664	25,208	33,483	36,089	58,541	2.0%	68.9%
7	Singapore	45,162	48,821	49,365	53,215	54,095	1.9%	19.8%
8	Republic of Korea	20,467	35,030	9,242	20,561	44,619	1.5%	118.0%
9	Bangladesh	25,706	32,802	30,203	23,035	19,345	0.7%	-24.7%
10	South Africa	24,989	21,573	19,702	15,237	18,661	0.6%	-25.3%
102	Mozambique	0	0	0	0	2	0.0%	NA
	Other	184,884	140,351	119,320	176,430	129,410	4.5%	-30.0%
	World	1,573,540	2,094,172	1,953,517	2,357,934	2,891,088	51.4%	83.7%

China includes mainland China, Hong Kong SAR and Taiwan.

Ranked by 2012 import quantity (most recent year available).

Source: FAOSTAT

FAOSTAT did not report any countries with imports of other forms of cassava during 2008 to 2012.

Producer prices. FAOSTAT reported cassava producer prices for 52 countries in 2013, but did not include data for Mozambique from 2009 to 2013. Global cassava prices indicate an overall upward trend, with increase on average of 32.3% during the period 2009-2013, and to USD470/ton in 2013.

*Let's Work: Value Chain Based Job Creation
Study Design Report
Volume 1 Annex: Background Market Trends*

Global Producer Prices, Cassava

Country	Annual producer price (USD/ton)					Change 2009-2013
	2009	2010	2011	2012	2013	
1 Angola	NA	331.92	308.33	417.93	300.06	NA
2 Benin	431.03	447.04	532.42	NA	NA	NA
3 Bolivia	183.39	194.17	205.58	213.48	212.97	16.1%
4 Brazil	105.90	129.66	140.48	125.64	138.33	30.6%
5 Burundi	327.07	348.76	361.96	335.19	NA	NA
6 Cabo Verde	1,577.87	2,297.44	1,708.89	2,781.96	2,772.41	75.7%
7 Cambodia	95.67	142.68	198.36	173.33	NA	NA
8 Cameroon	316.79	419.26	334.11	286.26	NA	NA
9 Chad	620.01	732.26	740.30	NA	NA	NA
10 China	95.17	NA	170.28	131.54	100.08	5.2%
12 Colombia	265.99	241.53	248.35	351.04	181.10	-31.9%
13 Congo	605.15	1,031.23	1,171.51	1,177.94	1,635.91	170.3%
14 Costa Rica	199.06	159.85	355.99	262.50	236.01	18.6%
15 Côte d'Ivoire	245.24	242.74	267.27			NA
16 Dominican Republic	343.51	263.04	386.22	358.69	369.60	7.6%
17 Ecuador	170.00	200.00	210.00	260.41	324.72	91.0%
18 El Salvador	394.24	274.65	338.14	364.00	268.40	-31.9%
19 Fiji	1,109.58	291.67	309.50	336.59	439.70	-60.4%
20 Ghana	143.71	168.95	176.96			NA
21 Guyana	353.52	148.35	435.20	644.89	234.19	-33.8%
22 Indonesia	174.39	222.48	229.42	226.63		NA
23 Jamaica	439.39	469.83	437.19	374.21	439.29	0.0%
24 Kenya	204.38	188.92	187.06	267.58	213.49	4.5%
25 Lao PDR	198.23	230.88	264.51	264.87	122.88	-38.0%
26 Madagascar	173.87	172.44	168.08	NA	NA	NA
27 Malawi	388.15	354.51	362.32	298.45	279.28	-28.0%
28 Malaysia	198.86	248.45	245.10	291.26	301.72	51.7%
29 Maldives	NA	1,718.75	1,654.03	1,822.92	1,301.51	NA
30 Mali	90.24	76.87	93.33	NA	NA	NA
31 Mauritius	267.11	250.23	373.82	314.45	350.44	31.2%
32 Mexico	212.01	229.45	215.12	205.16	192.16	-9.4%
33 Nicaragua	178.14	162.76	116.88	192.43	NA	NA
34 Niger	411.92	NA	NA	NA	NA	NA
35 Nigeria	120.77	142.45	142.91	152.55	161.68	33.9%
36 Panama	284.00	273.00	431.22	531.87	591.56	108.3%
37 Paraguay	57.03	58.73	72.37	67.63	91.38	60.2%
38 Peru	142.86	156.03	200.00	204.55	192.70	34.9%
39 Philippines	121.46	127.11	147.77	167.97	179.94	48.1%
40 Puerto Rico	1,053.59	678.36	631.84	630.08	761.70	-27.7%
41 Rwanda	320.42	312.27	265.85	297.21	368.81	15.1%
42 Saint Vincent and the Grenadines	555.24	636.89	692.59	1,665.71	1,227.31	121.0%
43 Senegal	326.99	315.56	341.51	NA	NA	NA
44 Seychelles	1,205.44	1,331.12	1,348.42	1,364.77	NA	NA
45 Sri Lanka	210.72	213.36	274.45	241.36	247.51	17.5%
46 Suriname	600.00	538.18	581.04	863.64	530.30	-11.6%
47 Thailand	34.72	58.15	87.90	67.25	69.07	98.9%
48 Togo	188.98	159.80	171.82	213.62	192.35	1.8%
49 Trinidad and Tobago	444.62	501.57	438.38	688.96	715.55	60.9%
50 Venezuela	925.58	1,155.04	731.93	848.48	1,032.08	11.5%
51 Viet Nam	91.14	118.71	124.90	124.50	132.71	45.6%
52 Zambia	199.10	NA	NA	NA	NA	NA
Average	355.15	399.31	400.65	490.70	469.69	32.3%

Countries listed are the only ones reported by FAOSTAT for the period shown.

No producer prices for cassava were reported for 2009-2013 for Mozambique.

Average shown is the straight average of countries' prices in the database.

Source: FAOSTAT

Annex 3: Pigeon Pea Production and Trade

Production. Globally, 4.7 million tons of pigeon peas reportedly were produced in 2013, on 6.2 million hectares of harvested area. Leading producers by volume and harvested area in 2013 included India, Myanmar, Malawi and Tanzania. Global volume increased 30.02% from 2009 to 2013, in line with change in harvested area of 34.1%, indicating no significant change in yield rates. FAOSTAT reports production quantity of pigeon peas and harvested area for 22 countries in 2013; however Mozambique is noticeably absent from the list. According to other sources¹, Mozambique produced 115,000 tons in 2013, which would rank it 5th globally.

Leading Global Producers of Pigeon Peas by Production Quantity

Country	Production quantity (tons)					Percent of 2013	Change 2009-2013
	2009	2010	2011	2012	2013		
1 India	2,270,000	2,460,000	2,860,000	2,650,000	3,022,700	64.6%	33.2%
2 Myanmar	765,000	772,999	848,823	820,000	800,000	17.1%	4.6%
3 Malawi	184,156	193,005	220,017	237,210	287,983	6.2%	56.4%
4 Tanzania	120,870	166,130	272,608	206,057	247,387	5.3%	104.7%
5 Uganda	91,000	92,470	93,645	84,200	93,930	2.0%	3.2%
6 Haiti	61,900	69,300	76,700	84,103	86,907	1.9%	40.4%
7 Kenya	46,474	103,324	84,313	89,390	73,183	1.6%	57.5%
8 Dominican Republic	26,306	25,070	24,818	27,998	26,855	0.6%	2.1%
9 Nepal	18,152	18,647	14,107	14,082	16,459	0.4%	-9.3%
10 Burundi	3,100	4,500	6,500	8,135	7,386	0.2%	138.3%
Other	14,155	14,283	15,433	17,280	17,146	0.4%	21.1%
World	3,601,113	3,919,728	4,516,964	4,238,455	4,679,936	100.0%	30.0%

Ranked by 2013 production quantity.

FAOSTAT did not report any production quantity for Mozambique during 2009-2013.

Source: FAOSTAT

¹ Pilot in Mozambique on Small-Scale Entrepreneurship in Value Chains (DRAFT), Technoserve, 6 Nov 2015

Leading Global Producers of Pigeon Peas by Harvested Area

Country	Area harvested (ha)					Percent of 2013	Change 2009-2013
	2009	2010	2011	2012	2013		
1 India	3,380,000	3,470,000	4,420,000	4,040,000	4,650,000	74.6%	37.6%
2 Myanmar	611,685	616,192	643,122	650,000	650,000	10.4%	6.3%
3 Tanzania	113,910	187,010	288,161	257,292	287,182	4.6%	152.1%
4 Malawi	175,734	190,437	196,552	203,400	217,068	3.5%	23.5%
5 Kenya	118,167	158,746	138,708	143,212	144,218	2.3%	22.0%
6 Haiti	86,000	91,200	95,900	105,150	108,634	1.7%	26.3%
7 Uganda	90,000	98,200	101,540	101,000	105,000	1.7%	16.7%
8 Dominican Republic	24,782	23,461	23,217	25,213	24,103	0.4%	-2.7%
9 Nepal	20,883	21,296	17,469	17,471	17,459	0.3%	-16.4%
10 DR Congo	10,052	10,139	11,536	11,000	11,000	0.2%	9.4%
Other	14,658	16,052	15,921	17,193	17,198	0.3%	17.3%
World	4,645,871	4,882,733	5,952,126	5,570,931	6,231,862	100.0%	34.1%

Ranked by 2013 harvested area.

FAOSTAT did not report any production area for Mozambique during 2009-2013.

Source: FAOSTAT

Among the 7 reported African producers of pigeon peas, Malawi, Tanzania, Uganda and Kenya account for nearly all reported production. As previously noted, FAOSTAT omits Mozambique from the pigeon pea production data; if included, Mozambique would have ranked 3rd in Africa in 2013. Overall within Africa, reported production volume increased 58.8% from 2009 to 2013, nearly double the rate of global production increase of 30.0%.

African Producers of Pigeon Peas by Production Quantity

Country	Production quantity (tons)					Percent of 2013	Change 2009-2013
	2009	2010	2011	2012	2013		
1 Malawi	184,156	193,005	220,017	237,210	287,983	40.1%	56.4%
2 Tanzania	120,870	166,130	272,608	206,057	247,387	34.5%	104.7%
3 Uganda	91,000	92,470	93,645	84,200	93,930	13.1%	3.2%
4 Kenya	46,474	103,324	84,313	89,390	73,183	10.2%	57.5%
5 Burundi	3,100	4,500	6,500	8,135	7,386	1.0%	138.3%
6 DR Congo	5,850	5,901	5,967	6,800	7,000	1.0%	19.7%
7 Comoros	322	424	400	415	430	0.1%	33.5%
Africa	451,772	565,754	683,450	632,207	717,299	100.0%	58.8%

Ranked by 2013 production quantity.

FAOSTAT did not report any production quantity for Mozambique during 2009-2013.

Source: FAOSTAT

Exports and Imports. FAOSTAT does not report trade (exports or imports) of pigeon peas. According to other sources², India is the world's largest importer and consumer of pigeon peas, and India absorbs all of Mozambique's production, as there is little to no domestic pigeon pea consumption in Mozambique. Mozambique is the 3rd largest pigeon pea exporter in the world and benefits from seasonal price effects. Mozambique mainly exports whole (not split) pigeon

² Reddy, K. (2014) Prospects for pulse imports in India (Handbook on Minor and Imported Pulses in India.) as cited in Pilot in Mozambique on Small-Scale Entrepreneurship in Value Chains (DRAFT), Technoserve, 6 Nov 2015.

peas, due to the small premium from processing. India's excess demand for pigeon peas is expected to continue growing for the coming decade, since India's domestic production cannot meet local demand.

Producer prices. Limited information is available regarding global producer prices for pigeon peas. FAOSTAT reports producer prices for only 10 countries in 2013, although it reports production quantity for 23 countries in 2013. Reported pigeon pea prices ranged from USD633 to USD2,735 per ton during 2013. Average global prices declined 5% from USD1,713/ton in 2009 to USD1,627/ton in 2013.

Global Producer Prices, Pigeon Peas

Country	Annual producer price (USD/ton)					Change 2009-2013
	2009	2010	2011	2012	2013	
Dominican Republic	623.92	643.88	599.95	610.22	632.59	1.4%
Jamaica	1,979.06	2,505.62	2,999.65	2,552.86	2,431.54	22.9%
Kenya	883.74	926.69	523.76	NA	NA	NA
Malawi	973.50	808.32	838.56	797.51	650.51	-33.2%
Nepal	1,577.37	1,671.13	1,083.42	1,034.57	815.57	-48.3%
Philippines	1,087.06	1,291.26	NA	NA	NA	NA
Puerto Rico	5,152.86	2,680.38	2,514.81	2,877.25	2,734.61	-46.9%
Togo	477.75	529.98	528.18	501.72	643.87	34.8%
Trinidad and Tobago	1,806.96	1,946.71	1,560.06	1,835.15	2,613.84	44.7%
Venezuela	2,572.09	2,317.83	1,398.60	2,338.00	2,498.42	-2.9%
Average	1,713.43	1,532.18	1,338.55	1,568.41	1,627.62	-5.0%

Countries listed are the only ones reported by FAOSTAT for the period shown.

No producer prices were reported for 2009-2013 for Mozambique.

Average shown is the straight average of countries' prices in the database.

Source: FAOSTAT

Annex 4: Soybean Production and Trade

Production. Globally, 276 million tons of soybeans reportedly were produced in 2013, on 112 million hectares of harvested area. Leading producers by volume in 2013 were USA (32.4% of global production), Brazil (29.6%) and Argentina (17.9%). Leading producers by harvested area in 2013 included USA, Brazil, Argentina and India. Global volume increased 23.6% from 2009 to 2013, outpacing growth in harvested area of 12.3%, indicating more efficient cultivation practices. FAOSTAT reports production quantity of soybeans and harvested area for 93 countries in 2013; however Mozambique is noticeably absent from the list. According to other sources³, Mozambique produced 49,000 tons in 2013, which would rank it 43rd globally.

Leading Global Producers of Soybeans by Production Quantity

Country	Production quantity (tons)					Percent of 2013	Change 2009-2013
	2009	2010	2011	2012	2013		
1 USA	91,417,300	90,605,460	84,191,930	82,054,800	89,483,000	32.4%	-2.1%
2 Brazil	57,345,382	68,756,343	74,815,447	65,848,857	81,724,477	29.6%	42.5%
3 Argentina	30,993,379	52,675,466	48,888,538	40,100,197	49,306,201	17.9%	59.1%
4 China	14,981,221	15,083,204	14,485,105	12,800,159	11,951,379	4.3%	-20.2%
5 India	9,964,500	12,736,000	12,214,000	14,666,000	11,948,000	4.3%	19.9%
6 Paraguay	3,855,000	7,460,435	8,309,793	4,344,960	9,086,000	3.3%	135.7%
7 Canada	3,506,800	4,345,300	4,246,300	5,086,400	5,198,400	1.9%	48.2%
8 Uruguay	1,170,000	2,000,000	1,830,000	3,000,000	3,200,000	1.2%	173.5%
9 Ukraine	1,043,500	1,680,200	2,264,400	2,410,200	2,774,300	1.0%	165.9%
10 Bolivia	1,892,619	1,693,048	1,861,038	2,061,430	2,347,282	0.9%	24.0%
Other	7,241,628	8,084,936	8,779,751	8,598,127	9,013,323	3.3%	24.5%
World	223,411,329	265,120,392	261,886,302	240,971,130	276,032,362	100.0%	23.6%

Ranked by 2013 production quantity.

No production was reported for 2009-2013 for Mozambique.

Source: FAOSTAT

³ Pilot in Mozambique on Small-Scale Entrepreneurship in Value Chains (DRAFT), Technoserve, 6 Nov 2015

Leading Global Producers of Soybeans by Harvested Area

Country	Area harvested (ha)					Percent of 2013	Change 2009-2013
	2009	2010	2011	2012	2013		
1 USA	30,906,980	31,003,300	29,856,410	30,798,530	30,703,000	27.5%	-0.7%
2 Brazil	21,750,468	23,327,296	23,968,663	24,975,258	27,906,675	25.0%	28.3%
3 Argentina	16,771,003	18,130,799	18,764,850	17,577,320	19,418,825	17.4%	15.8%
4 India	9,734,700	9,554,190	10,180,000	10,840,000	12,200,000	10.9%	25.3%
5 China	9,190,123	8,516,115	7,889,055	6,750,080	6,790,981	6.1%	-26.1%
6 Paraguay	2,570,000	2,671,059	2,805,467	2,920,000	3,080,000	2.8%	19.8%
7 Canada	1,383,300	1,476,800	1,542,400	1,679,000	1,819,600	1.6%	31.5%
8 Ukraine	622,500	1,036,700	1,110,300	1,412,400	1,351,030	1.2%	117.0%
9 Bolivia	902,218	1,086,769	1,177,541	1,177,541	1,237,774	1.1%	37.2%
10 Russian Federation	794,200	1,036,300	1,187,400	1,375,200	1,202,900	1.1%	51.5%
Other	4,712,316	4,968,500	5,334,555	5,513,530	5,833,918	5.2%	23.8%
World	99,337,808	102,807,828	103,816,641	105,018,859	111,544,703	100.0%	12.3%

Ranked by 2013 harvested area.

No production was reported for 2009-2013 for Mozambique.

Source: FAOSTAT

Among the 24 reported African producers of soybeans in 2013, South Africa, Nigeria, Zambia and Uganda accounted for the majority of the continent's reported production. However, as noted in the table notes, data anomalies exist for Africa soybean production. As previously noted, FAOSTAT omits Mozambique from the soybean production data; if included, Mozambique would have ranked 8th in Africa in 2013. Overall within Africa, reported production volume increased 28.8% from 2009 to 2013, in line with the rate of change in global production increase of 23.6%.

African Producers of Soybeans by Production Quantity

Country	Production quantity (tons)					Percent of 2013	Change 2009-2013
	2009	2010	2011	2012	2013		
1 South Africa	516,000	566,000	710,000	650,000	785,000	43.8%	52.1%
2 Nigeria	426,590	365,080	492,852	650,000	600,000	33.5%	40.7%
3 Zambia	118,794	111,887	116,539	203,038	261,063	14.6%	119.8%
4 Uganda	180,000	181,440	213,300	185,000	190,000	10.6%	5.6%
5 Malawi	85,098	73,356	75,665	106,592	111,977	6.3%	31.6%
6 Zimbabwe	90,000	57,328	80,000	90,000	90,000	5.0%	0.0%
7 Ethiopia	7,899	15,824	35,880	63,653	49,110	2.7%	521.7%
8 Rwanda	54,000	57,089	37,426	18,544	24,838	1.4%	-54.0%
9 Egypt	22,436	43,342	29,785	26,000	23,000	1.3%	2.5%
10 DR Congo	17,517	18,232	18,977	22,000	23,000	1.3%	31.3%
Other	-128,664	-337,216	-225,141	-238,236	-367,441	-20.5%	185.6%
Africa	1,389,670	1,152,362	1,585,283	1,776,591	1,790,547	100.0%	28.8%

Ranked by 2013 production quantity.

No production was reported for 2009-2013 for Mozambique.

Country-level data is as reported by FAOSTAT. Production volume for individual countries exceeds that of the continent as a whole; however, no explanation could be identified.

Source: FAOSTAT

Globally, 42.6 million tons of soybean oil reportedly was produced in 2013. Leading producers included China, USA, Brazil and Argentina. Global volume increased 17.1% from 2009 to 2013. Among top 10 producers, growth in China, Brazil, Paraguay and Bolivia outpaced worldwide growth rates. No soybean oil production was reported for Mozambique by FAOSTAT.

Leading Global Producers of Soybean Oil by Production Quantity

Country	Production quantity (tons)					Percent of 2013	Change 2009-2013
	2009	2010	2011	2012	2013		
1 China	7,919,000	9,174,000	10,051,100	10,656,900	10,981,400	25.7%	38.7%
2 USA	8,885,600	8,556,260	8,567,263	8,990,000	9,169,000	21.5%	3.2%
3 Brazil	5,896,000	6,928,000	7,341,000	7,010,000	7,077,000	16.6%	20.0%
4 Argentina	5,772,026	7,000,075	7,113,681	6,353,359	6,432,900	15.1%	11.4%
5 India	1,594,000	2,038,000	1,954,000	2,262,000	1,690,000	4.0%	6.0%
6 Germany	574,900	579,200	562,400	603,300	630,100	1.5%	9.6%
7 Spain	509,700	563,300	562,300	582,800	592,000	1.4%	16.1%
8 Paraguay	300,800	335,700	374,100	180,500	570,000	1.3%	89.5%
9 Netherlands	469,800	462,300	435,200	407,800	469,700	1.1%	0.0%
10 Bolivia	175,642	292,142	330,091	360,766	410,976	1.0%	134.0%
Other	4,336,492	4,759,620	4,633,023	4,591,525	4,636,067	10.9%	6.9%
World	36,433,960	40,688,597	41,924,158	41,998,950	42,659,143	100.0%	17.1%

Ranked by 2013 production quantity.

China includes mainland China and Taiwan.

No production was reported for 2009-2013 for Mozambique.

Source: FAOSTAT

Reportedly, 12 countries in Africa produced soybean oil in 2013, with Egypt, South Africa and Tunisia leading the production volume. South Africa also had the highest historic growth rate, increasing 386% from 2009 to 2013. No soybean oil production was reported for Mozambique by FAOSTAT. Annual African production of soybean oil totaled less than 1.5% of annual global production from 2009 to 2013.

African Producers of Soybean Oil by Production Quantity

Country	Production quantity (tons)					Percent of 2013	Change 2009-2013
	2009	2010	2011	2012	2013		
1 Egypt	232,400	273,500	308,300	304,500	277,800	53.8%	19.5%
2 South Africa	20,100	32,100	43,200	71,900	97,700	18.9%	386.1%
3 Tunisia	36,100	68,200	80,200	49,200	77,100	14.9%	113.6%
4 Uganda	25,400	25,200	25,000	25,600	26,300	5.1%	3.5%
5 Zimbabwe	15,500	12,500	13,000	15,200	16,000	3.1%	3.2%
6 Morocco	54,000	37,900	5,500	14,900	9,800	1.9%	-81.9%
7 Nigeria	1,800	3,600	3,600	3,600	3,600	0.7%	100.0%
8 Zambia	1,440	3,600	3,600	1,440	3,600	0.7%	150.0%
9 Benin	1,748	3,354	2,404	2,784	2,974	0.6%	70.1%
10 Gabon	610	662	784	798	860	0.2%	41.0%
11 Togo	0	600	143	143	143	0.0%	NA
12 Libya	0	12	12	12	12	0.0%	NA
Africa	389,098	461,228	485,743	490,077	515,889	100.0%	32.6%

Ranked by 2013 production quantity.

No production was reported for 2009-2013 for Mozambique.

Source: FAOSTAT

Exports. Leading exporters of soybeans in 2012 included USA (45.3% of global export volume), Brazil (33.5%) and Argentina (6.4%). With 184,000 tons exported, South Africa ranked 12th for soybean exports in 2012. No exports were reported by Mozambique during 2008 to 2012. Soybean oil exports were not reported by FAOSTAT.

Leading Global Exporters of Soybeans by Export Quantity

Country	Import quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012		
1 USA	33,995,589	40,505,680	42,350,556	34,310,515	43,858,749	45.3%	29.0%
2 Brazil	24,499,491	28,562,707	29,073,200	32,985,562	32,468,028	33.5%	32.5%
3 Argentina	11,733,589	4,291,705	13,616,013	10,820,030	6,158,407	6.4%	-47.5%
4 Canada	1,850,571	2,279,067	2,775,969	2,650,762	3,605,331	3.7%	94.8%
5 Paraguay	3,689,013	2,128,548	4,658,608	5,093,590	3,161,711	3.3%	-14.3%
6 Uruguay	810,725	1,090,028	1,968,195	1,700,762	2,563,552	2.6%	216.2%
7 Netherlands	982,180	1,138,258	1,262,132	737,532	1,614,195	1.7%	64.3%
8 Ukraine	201,346	263,140	195,711	1,096,303	1,480,937	1.5%	635.5%
9 China	473,965	357,561	175,315	219,090	330,782	0.3%	-30.2%
10 Bolivia	86,681	125,686	51,228	27,279	298,980	0.3%	244.9%
12 South Africa	5,813	161,922	122,794	42,505	183,958	0.2%	3064.6%
Other	693,211	637,528	1,066,141	1,293,854	1,173,365	1.2%	69.3%
World	79,022,174	81,541,830	97,315,862	90,977,784	96,897,995	100.0%	22.6%

Ranked by 2012 export quantity (most recent year available).

China includes mainland China, Hong Kong SAR, Macao SAR and Taiwan.

No exports were reported for Mozambique for 2008-2012.

Source: FAOSTAT

Imports. Leading importers of soybeans include China (63.3% of import volume in 2012), Mexico and Germany (each 3.6%). In 2012, Mozambique ranked 75th in import volume with

3,279 tons. While global import volume grew 21.4% from 2008 to 2012, China appears to have unceasing demand, as their growth increased 53.6% during the same period. Africa imported 2.4 million tons of soybeans in 2012, which amounted to 2.5% of global import volume. Leading African importers included Egypt, Tunisia and Morocco.

Leading Global Importers of Soybeans by Import Quantity

Country	Import quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012		
1 China	39,563,078	44,951,255	57,379,915	54,834,369	60,765,498	63.3%	53.6%
2 Mexico	3,507,196	3,425,920	3,772,163	3,340,376	3,477,274	3.6%	-0.9%
3 Germany	3,484,861	3,165,419	3,383,117	3,189,579	3,447,342	3.6%	-1.1%
4 Spain	3,275,286	2,933,498	3,127,079	3,176,843	3,313,170	3.5%	1.2%
5 Netherlands	4,013,271	3,048,210	3,553,436	3,048,719	2,822,559	2.9%	-29.7%
6 Japan	3,711,043	3,390,080	3,455,633	2,830,773	2,727,400	2.8%	-26.5%
7 Thailand	1,723,273	1,534,551	1,818,705	1,994,378	2,119,941	2.2%	23.0%
8 Indonesia	1,173,097	1,314,620	1,740,505	2,088,616	1,921,207	2.0%	63.8%
9 Egypt	1,192,400	1,471,700	1,752,302	1,712,400	1,815,300	1.9%	52.2%
10 Italy	1,647,103	1,368,041	1,550,149	1,240,717	1,207,329	1.3%	-26.7%
75 Mozambique	36	137	239	2,129	3,279	0.0%	9008.3%
Other	15,810,625	14,209,995	14,498,459	13,842,289	12,408,978	12.9%	-21.5%
World	79,101,269	80,813,426	96,031,702	91,301,188	96,029,277	100.0%	21.4%

Ranked by 2012 import quantity (most recent year available).

China includes mainland China, Hong Kong SAR, Macao SAR and Taiwan.

Source: FAOSTAT

Leading importers of soybean oil include China (19.6% of import volume in 2012), India (11.4%) and Iran (5.3%). However, soybean oil import is highly fragmented, with the “other” (i.e. global import excluding top 10, South Africa and Mozambique) comprising 35.1% of global import volume. Mozambique reported importing nearly 13,000 tons of soybean oil in 2012, ranking it 68th for global import volume, while neighboring South Africa ranked 12th and imported nearly 200,000 tons of soybean oil in 2012. Africa soybean oil imports totaled 1.7 million tons in 2013 or 17.7% of global import volume. Besides South Africa, leading African importers of soybean oil included Algeria, Morocco and Egypt.

Leading Global Importers of Soybean Oil by Import Quantity

Country	Import quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012		
1 China	2,670,622	2,467,066	1,398,655	1,201,957	1,879,921	19.6%	-29.6%
2 India	698,773	1,100,879	1,132,030	939,375	1,093,539	11.4%	56.5%
3 Iran	351,052	142,702	380,109	632,832	508,395	5.3%	44.8%
4 Algeria	330,991	391,096	375,689	484,491	464,721	4.8%	40.4%
5 Morocco	364,871	394,711	373,563	350,748	391,366	4.1%	7.3%
6 Venezuela	436,364	348,781	361,865	411,652	379,497	4.0%	-13.0%
7 Bangladesh	187,142	394,500	350,000	424,000	373,000	3.9%	99.3%
8 Peru	291,855	272,091	352,015	314,947	343,591	3.6%	17.7%
9 Republic of Korea	287,167	284,461	325,157	301,252	339,864	3.5%	18.4%
10 Colombia	178,510	163,412	221,183	237,698	244,540	2.5%	37.0%
12 South Africa	247,888	137,801	272,963	277,729	197,938	2.1%	-20.2%
68 Mozambique	35,700	10,100	20,500	45,000	12,909	0.1%	-63.8%
Other	5,230,341	3,799,597	4,263,014	4,739,981	3,364,283	35.1%	-35.7%
World	11,311,276	9,907,197	9,826,743	10,361,662	9,593,564	100.0%	-15.2%

Ranked by 2012 import quantity (most recent year available).

China includes mainland China, Hong Kong SAR, Macao SAR and Taiwan.

Source: FAOSTAT

Producer prices. FAOSTAT reported soybean producer prices for 45 countries in 2013, but did not include data for Mozambique from 2009 to 2013. Global soybean prices indicate an overall significant upward trend, with increase on average of 62.1% during the period 2009-2013, and rising to USD942/ton in 2013.

*Let's Work: Value Chain Based Job Creation
Study Design Report
Volume 1 Annex: Background Market Trends*

Global Producer Prices, Soybeans

	Country	Annual producer price (USD/ton)					Change 2009-2013
		2009	2010	2011	2012	2013	
1	Albania	737.01	674.44	743.83	693.48	NA	NA
2	Angola	NA	1,088.26	1,066.89	1,246.46	1,036.12	NA
3	Argentina	255.40	262.47	308.78	363.66	329.51	29.0%
4	Australia	437.30	443.32	515.46	NA	NA	NA
5	Austria	377.78	425.00	480.56	598.72	523.29	38.5%
6	Bangladesh	394.96	503.23	507.29	667.11	925.24	134.3%
7	Bolivia	372.90	430.25	417.16	442.80	472.19	26.6%
8	Bosnia and Herzegovina	357.86	411.56	463.83	673.03	502.52	40.4%
9	Brazil	367.10	359.83	426.17	508.56	465.08	26.7%
10	Bulgaria	586.43	488.44	436.68	647.37	867.57	47.9%
11	Cambodia	572.82	595.09	716.07	710.67	NA	NA
12	Canada	360.27	372.82	446.32	494.41	488.27	35.5%
13	China	582.72	NA	803.41	841.52	677.94	16.3%
14	Colombia	502.29	534.29	632.16	668.69	634.69	26.4%
15	Croatia	385.20	417.67	455.99	604.23	529.89	37.6%
16	Ecuador	488.32	505.55	498.81	582.69	574.19	17.6%
17	Egypt	400.00	412.63	483.47	679.70	NA	NA
18	Ethiopia	351.24	264.89	379.88	890.96	NA	NA
19	France	447.06	548.47	504.45	569.88	509.45	14.0%
20	Georgia	476.83	444.94	NA	NA	NA	NA
21	Hungary	369.16	424.25	479.82	576.36	568.99	54.1%
22	Indonesia	638.10	738.60	827.48	800.88	NA	NA
23	Iran	514.08	528.72	533.67	842.74	996.65	93.9%
24	Japan	1,651.33	1,492.98	1,603.54	1,288.82	1,106.64	-33.0%
25	Kazakhstan	308.31	313.09	346.11	372.34	461.92	49.8%
26	Lao PDR	830.44	958.81	773.59	865.04	962.28	15.9%
27	Malawi	964.29	765.91	892.17	975.90	678.54	-29.6%
28	Mexico	365.34	433.54	507.43	535.86	494.05	35.2%
29	Nepal	603.25	727.31	798.52	741.04	764.39	26.7%
30	Nicaragua	213.08	309.13	441.57	470.66	NA	NA
31	Nigeria	501.29	425.08	433.33	449.30	450.96	-10.0%
32	Pakistan	392.51	415.89	NA	NA	NA	NA
33	Paraguay	327.68	339.05	415.07	460.04	431.85	31.8%
34	Peru	554.82	631.21	694.55	856.06	811.56	46.3%
35	Philippines	488.88	665.20	1,043.77	749.01	522.13	6.8%
36	Republic of Korea	2,633.42	2,817.39	NA	NA	NA	NA
37	Republic of Moldova	123.27	209.87	222.12	299.46	413.93	235.8%
38	Romania	315.79	388.01	427.63	494.22	550.00	74.2%
39	Russian Federation	352.67	375.16	394.30	425.08	471.20	33.6%
40	Rwanda	639.14	588.47	633.88	644.77	663.01	3.7%
41	Serbia	378.72	370.01	452.15	676.91	512.57	35.3%
42	Slovakia	381.67	416.24	471.19	548.46	510.53	33.8%
43	Slovenia	401.74	420.55	486.11	512.18	508.93	26.7%
44	South Africa	381.68	345.83	439.89	449.82	487.33	27.7%
45	Spain	428.47	430.00	466.81	565.77	NA	NA
46	Sri Lanka	664.52	663.87	538.40	637.61	700.00	5.3%
47	Suriname	1,574.55	2,605.45	2,504.28	2,791.82	3,757.58	138.6%
48	Thailand	404.73	485.46	487.70	591.70	603.06	49.0%
49	The former Yugoslav Rep of Macedonia	545.34	520.47	714.53	814.88	852.76	56.4%
50	Turkey	456.13	572.67	550.22	594.81	523.11	14.7%
51	Ukraine	343.26	327.96	367.63	428.29	433.63	26.3%
52	USA	352.00	415.00	459.00	529.00	467.00	32.7%
53	Uruguay	397.60	380.29	484.72	547.88	500.20	25.8%
54	Venezuela	604.65	689.92	529.14	657.34	919.27	52.0%
55	Viet Nam	552.86	579.72	692.66	667.14	847.61	53.3%
56	Zimbabwe	NA	300.00	299.99	520.00	520.00	NA
	Average	581.24	687.69	708.99	814.29	942.42	62.1%

Countries listed are the only ones reported by FAOSTAT for the period shown.

No producer prices were reported for 2009-2013 for Mozambique.

Average shown is the straight average of countries' prices in the database.

Source: FAOSTAT

Annex 5: Sugarcane Production and Trade

Production. Globally, 1.9 billion tons of sugarcane reportedly were produced in 2013, on 26.9 million hectares of harvested area. Leading producers by volume in 2013 were Brazil (40.2% of global production volume), India (17.9%), China (6.7%) and Thailand (5.2%); the same countries had the largest harvested area in 2013. Global volume increased 13.3% from 2009 to 2013, in line with growth in harvested area of 13.6%. South Africa ranked 15th in production volume and 14th in harvested area for 2013, while Mozambique ranked 37th in production volume and 41st in harvested area in 2013.

Leading Global Producers of Sugarcane by Production Quantity

Country	Production quantity (tons)					Percent of 2013	Change 2009-2013
	2009	2010	2011	2012	2013		
1 Brazil	691,606,147	717,463,793	734,006,059	721,077,287	768,090,444	40.2%	11.1%
2 India	285,029,300	292,301,600	342,382,000	361,037,000	341,200,000	17.9%	19.7%
3 China	116,250,978	111,501,483	115,123,560	124,038,017	128,850,908	6.7%	10.8%
4 Thailand	66,816,446	68,807,800	95,950,416	98,400,000	100,096,000	5.2%	49.8%
5 Pakistan	50,045,400	49,372,900	55,308,500	58,397,000	63,749,900	3.3%	27.4%
6 Mexico	49,492,695	50,421,619	49,735,273	50,946,483	61,182,077	3.2%	23.6%
7 Colombia	36,700,000	33,300,000	34,889,673	33,363,560	34,876,332	1.8%	-5.0%
8 Indonesia	26,400,000	26,600,000	24,000,000	28,700,000	33,700,000	1.8%	27.7%
9 Philippines	32,500,000	28,000,000	30,000,000	32,000,000	31,874,000	1.7%	-1.9%
10 USA	27,607,450	24,820,574	26,655,810	29,235,877	27,905,943	1.5%	1.1%
15 South Africa	18,655,089	16,015,605	16,800,000	17,278,000	18,000,000	0.9%	-3.5%
37 Mozambique	2,207,000	2,720,400	3,396,334	3,393,904	3,800,000	0.2%	72.2%
Other	283,756,764	272,263,067	272,551,681	280,668,305	297,854,171	15.6%	5.0%
World	1,687,067,269	1,693,588,841	1,800,799,306	1,838,535,433	1,911,179,775	100.0%	13.3%

Ranked by 2013 production quantity.

China includes mainland China and Taiwan.

Source: FAOSTAT

Leading Global Producers of Sugarcane by Harvested Area

Country	Area harvested (ha)					Percent of 2013	Change 2009-2013
	2009	2010	2011	2012	2013		
1 Brazil	8,617,555	9,076,706	9,601,316	9,705,388	10,195,166	37.8%	18.3%
2 India	4,415,400	4,174,600	4,944,390	5,090,000	5,060,000	18.8%	14.6%
3 China	1,707,582	1,695,824	1,730,395	1,803,193	1,825,390	6.8%	6.9%
4 Thailand	932,465	977,956	1,259,240	1,282,080	1,321,600	4.9%	41.7%
5 Pakistan	1,029,400	942,800	987,700	1,046,000	1,128,800	4.2%	9.7%
6 Mexico	710,585	703,943	713,824	735,127	782,801	2.9%	10.2%
7 Indonesia	441,440	436,600	435,000	410,000	450,000	1.7%	1.9%
8 Philippines	404,000	354,878	439,698	433,301	435,405	1.6%	7.8%
9 Colombia	379,505	348,531	381,961	408,816	405,737	1.5%	6.9%
10 Cuba	434,700	431,400	506,100	361,300	402,800	1.5%	-7.3%
14 South Africa	311,000	267,000	272,000	320,000	325,000	1.2%	4.5%
41 Mozambique	38,000	38,481	42,702	45,917	48,000	0.2%	26.3%
Other	4,293,378	4,273,778	4,248,833	4,443,481	4,561,987	16.9%	6.3%
World	23,715,010	23,722,497	25,563,159	26,084,603	26,942,686	100.0%	13.6%

Ranked by 2013 harvested area.

China includes mainland China and Taiwan.

Source: FAOSTAT

Reportedly, 40 countries in Africa produced sugarcane in 2013, with South Africa, Egypt, Sudan and Kenya leading the production volume. Total Africa production of sugarcane in 2013 was 97 million, or 5.1% of global production. Mozambique ranked 9th in Africa for production volume. African production grew only 5% from 2009 to 2013. Leading growth rates were reported for Mozambique (72%), Zimbabwe (66%), Zambia (25%) and Cote d'Ivoire (25%).

African Producers of Sugarcane by Production Quantity

Country	Production quantity (tons)					Percent of 2013	Change 2009-2013
	2009	2010	2011	2012	2013		
1 South Africa	18,655,089	16,015,605	16,800,000	17,278,000	18,000,000	18.5%	-3.5%
2 Egypt	15,482,170	15,708,879	15,765,213	15,550,000	16,100,000	16.5%	4.0%
3 Sudan (former)	7,526,700	6,728,000	6,055,200	6,172,671	6,797,900	7.0%	-9.7%
4 Kenya	5,610,702	5,709,586	5,338,562	5,822,633	5,900,000	6.1%	5.2%
5 Swaziland	5,000,000	5,000,000	5,000,000	5,400,000	5,450,000	5.6%	9.0%
6 Zambia	3,200,000	3,500,000	3,500,000	3,900,000	4,000,000	4.1%	25.0%
7 Zimbabwe	2,338,300	2,692,000	3,058,000	3,929,056	3,880,000	4.0%	65.9%
8 Mauritius	4,667,235	4,365,833	4,230,173	3,947,264	3,815,782	3.9%	-18.2%
9 Mozambique	2,207,000	2,720,400	3,396,334	3,393,904	3,800,000	3.9%	72.2%
10 Uganda	3,300,000	3,550,000	3,250,000	3,300,000	3,350,000	3.4%	1.5%
11 Madagascar	3,000,000	3,000,000	3,050,000	3,270,000	3,250,000	3.3%	8.3%
12 Tanzania	2,700,000	3,000,000	3,021,314	2,716,619	2,992,177	3.1%	10.8%
13 Malawi	2,600,000	2,500,000	2,500,000	2,800,000	2,900,000	3.0%	11.5%
14 Ethiopia	2,450,000	2,400,000	2,500,000	2,700,000	2,750,000	2.8%	12.2%
15 DR Congo	1,827,140	1,950,000	1,950,000	1,950,000	2,000,000	2.1%	9.5%
16 Côte d'Ivoire	1,578,640	1,800,467	1,940,493	1,866,748	1,968,917	2.0%	24.7%
17 Réunion	1,907,640	1,877,197	1,888,244	1,835,786	1,900,000	2.0%	-0.4%
18 Nigeria	1,401,680	1,400,000	1,450,000	1,460,000	1,455,000	1.5%	3.8%
19 Cameroon	1,450,000	1,450,000	1,450,000	1,200,000	1,200,000	1.2%	-17.2%
Other	5,870,886	5,718,623	5,953,985	5,813,344	5,913,338	6.1%	0.7%
Africa	92,773,182	91,086,590	92,097,518	94,306,025	97,423,114	100.0%	5.0%

Ranked by 2013 production quantity.

Ranking includes all African producers of 1,000,000 tons or more in 2013.

Source: FAOSTAT

Globally, 179 million tons of raw centrifugal sugar was produced in 2013. Similar to sugarcane production, leading producers of raw centrifugal sugar included Brazil, India, China and Thailand. Mozambique ranked 53rd globally with production of 397,000 tons in 2013, while South Africa ranked 13th with 2.6 million tons of production. Global volume increased 17.1% from 2009 to 2013. Africa production totaled 11.6 million tons or 6.5% of global production volume. Besides South Africa, leading African producers of sugar raw centrifugal in 2013 included Egypt, Sudan, Swaziland and Kenya; Mozambique ranked 11th.

Leading Global Producers of Sugar Raw Centrifugal by Production Quantity

Country	Production quantity (tons)					Percent of 2013	Change 2009-2013
	2009	2010	2011	2012	2013		
1 Brazil	34,636,900	39,872,000	37,582,000	40,219,000	39,494,000	22.1%	14.0%
2 India	15,950,000	20,637,000	26,574,000	28,830,000	27,737,000	15.5%	73.9%
3 China	11,726,600	11,422,870	12,575,400	14,241,600	14,746,000	8.2%	25.7%
4 Thailand	7,186,592	6,928,713	9,663,000	10,235,000	10,024,000	5.6%	39.5%
5 USA	7,650,000	8,153,000	7,722,000	8,147,000	7,636,000	4.3%	-0.2%
6 Mexico	4,962,495	4,825,539	5,183,500	5,048,469	6,974,799	3.9%	40.6%
7 Pakistan	3,467,000	3,410,000	4,493,000	5,000,000	4,952,000	2.8%	42.8%
8 Russian Federation	3,289,276	2,781,563	4,753,113	5,203,000	4,782,800	2.7%	45.4%
9 France	4,365,000	4,149,000	4,863,000	4,288,000	4,337,000	2.4%	-0.6%
10 Australia	4,634,000	4,519,000	3,610,000	3,683,000	4,300,000	2.4%	-7.2%
13 South Africa	2,330,205	2,069,377	1,981,186	2,118,619	2,561,000	1.4%	9.9%
53 Mozambique	245,800	324,575	378,787	385,093	396,719	0.2%	61.4%
Other	48,990,893	46,448,600	51,457,246	51,688,627	50,976,899	28.5%	4.1%
World	149,434,761	155,541,237	170,836,232	179,087,408	178,918,217	100.0%	19.7%

Ranked by 2013 production quantity.

China includes mainland China and Taiwan.

Source: FAOSTAT

Exports. Leading exporters of raw centrifugal sugar in 2012 included Brazil (54.9% of global export volume), Thailand (13.6%) and Australia (6.9%). Although Mozambique ranked 9th globally and exported 251,000 tons of raw centrifugal sugar in 2012, such volume amounted to less than 1% of global export volume. Still, Mozambique export quantity nearly doubled from 2008 to 2012.

Leading Global Exporters of Sugar Raw Centrifugal, by Export Quantity

Country	Export quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012		
1 Brazil	13,624,578	17,925,542	20,938,703	20,152,914	19,147,138	54.9%	40.5%
2 Thailand	2,977,767	2,348,116	2,074,999	4,122,701	4,736,886	13.6%	59.1%
3 Australia	2,351,684	2,445,473	2,990,228	1,711,488	2,395,754	6.9%	1.9%
4 India	1,455,073	25,496	383,307	876,554	1,819,207	5.2%	25.0%
5 Guatemala	1,296,934	1,591,324	1,742,078	1,289,815	1,515,009	4.3%	16.8%
6 Cuba	804,383	740,438	559,295	639,074	811,658	2.3%	0.9%
7 El Salvador	269,945	270,363	313,884	276,118	314,493	0.9%	16.5%
8 Guyana	206,549	194,729	148,171	253,021	281,648	0.8%	36.4%
9 Mozambique	131,783	101,771	236,202	151,130	251,003	0.7%	90.5%
10 Swaziland	206,869	197,129	283,962	264,841	247,637	0.7%	19.7%
Other	4,018,071	4,741,726	4,098,745	4,009,928	3,373,300	9.7%	-16.0%
World	27,343,636	30,582,107	33,769,574	33,747,584	34,893,733	100.0%	27.6%

Ranked by 2012 export quantity (most recent year available).

China includes mainland China, Hong Kong SAR, Macao SAR and Taiwan.

Source: FAOSTAT

Leading exporters of refined sugar in 2012 included Brazil (21.7% of global export volume), Thailand (9.4%) and France (9.1%). Mozambique ranked 131st globally, with no exports in

2012, but did realize exports of 11,114 tons in 2011. Global export volume of refined sugar grew only 7.0% during 2008 to 2012.

Leading Global Exporters of Sugar Refined, by Export Quantity

Country	Export quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012		
1 Brazil	5,847,943	6,368,556	7,060,788	5,206,237	4,870,304	21.7%	-16.7%
2 Thailand	2,034,035	2,704,454	2,425,720	2,397,970	2,116,238	9.4%	4.0%
3 France	1,867,249	2,142,315	2,162,975	2,177,163	2,046,589	9.1%	9.6%
4 India	1,875,411	17,398	915,790	1,842,467	1,673,320	7.5%	-10.8%
5 Germany	771,150	1,033,589	1,074,562	941,254	995,982	4.4%	29.2%
6 Mexico	599,103	648,340	621,428	1,123,175	813,420	3.6%	35.8%
7 Belgium	605,961	497,098	777,309	546,429	703,831	3.1%	16.2%
8 Colombia	313,730	653,426	632,948	729,100	602,771	2.7%	92.1%
9 Poland	399,461	186,477	355,000	289,280	521,797	2.3%	30.6%
10 Belarus	323,464	439,870	493,378	389,462	451,225	2.0%	39.5%
131 Mozambique	5,941	6,422	11,114	11,114	0	0.0%	-100.0%
Other	6,295,936	6,474,594	8,517,057	7,454,842	7,614,386	34.0%	20.9%
World	20,939,384	21,172,539	25,048,069	23,108,493	22,409,863	100.0%	7.0%

Ranked by 2012 export quantity (most recent year available).

China includes mainland China, Hong Kong SAR, Macao SAR and Taiwan.

Source: FAOSTAT

Leading exporters of confectionery sugar in 2012 included Mexico (7.9% of global export volume), China (7.8%), Germany (7.6%) and Belgium (6.1%). Mozambique did not report any exports for 2012 but achieved as much as 319 tons exported in 2010.

Leading Global Exporters of Sugar Confectionery, by Export Quantity

Country	Export quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012		
1 Mexico	271,571	236,184	127,893	237,744	250,020	7.9%	-7.9%
2 China	174,575	183,581	231,236	246,518	248,607	7.8%	42.4%
3 Germany	217,664	207,974	222,597	237,605	241,411	7.6%	10.9%
4 Belgium	167,610	171,679	181,241	185,157	194,284	6.1%	15.9%
5 Canada	163,904	158,663	165,889	166,443	167,804	5.3%	2.4%
6 Turkey	102,196	94,288	102,992	120,492	145,485	4.6%	42.4%
7 USA	125,022	120,624	123,743	127,717	138,257	4.3%	10.6%
8 Netherlands	88,035	110,356	104,579	135,057	136,907	4.3%	55.5%
9 Spain	113,871	112,423	113,794	122,568	131,137	4.1%	15.2%
10 Colombia	126,005	120,356	110,481	111,996	107,327	3.4%	-14.8%
NR Mozambique	24	22	319	46	0	0.0%	-100.0%
Other	1,314,773	1,278,552	1,323,034	1,409,271	1,420,376	44.6%	8.0%
World	2,865,250	2,794,702	2,807,798	3,100,614	3,181,615	100.0%	11.0%

Ranked by 2012 export quantity (most recent year available).

NR = not ranked (no 2012 exports)

China includes mainland China, Hong Kong SAR, Macao SAR and Taiwan.

Source: FAOSTAT

Imports. Leading importers of raw centrifugal sugar in 2012 included China (12.0% of global import volume), Indonesia (8.4%) and USA (6.1%). Mozambique imported 12,015 tons and ranked 82nd for global imports in 2012. Africa overall imported 5.1 million tons of sugar raw centrifugal in 2012, or 15.9% of global import volume. Major regional buyers included Algeria, Morocco and Egypt.

Leading Global Importers of Sugar Raw Centrifugal, by Import Quantity

Country	Import quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012		
1 China	811,980	1,366,756	2,011,516	2,985,226	3,859,795	12.0%	375.4%
2 Indonesia	380,225	1,293,143	1,191,481	2,305,032	2,704,256	8.4%	611.2%
3 USA	1,699,131	1,783,705	2,022,807	2,174,018	1,962,714	6.1%	15.5%
4 Republic of Korea	1,615,474	1,645,947	1,636,041	1,627,088	1,723,055	5.4%	6.7%
5 Malaysia	1,444,097	1,561,148	1,702,275	1,777,745	1,689,563	5.3%	17.0%
6 Algeria	774,809	811,724	1,186,023	1,346,695	1,628,872	5.1%	110.2%
7 Bangladesh	765,458	1,291,494	977,776	1,253,474	1,507,743	4.7%	97.0%
8 Japan	1,396,220	1,293,684	1,214,178	1,511,648	1,422,826	4.4%	1.9%
9 Canada	1,334,183	1,019,349	963,294	1,128,903	1,082,720	3.4%	-18.8%
10 United Arab Emirates	182,240	1,116,254	486,767	713,998	1,075,646	3.4%	490.2%
82 Mozambique					12,015	0.0%	NA
Other	15,453,790	14,891,998	17,694,884	17,083,714	13,413,554	41.8%	-13.2%
World	25,857,607	28,075,202	31,087,042	33,907,541	32,082,759	100.0%	24.1%

Ranked by 2012 import quantity (most recent year available).

China includes mainland China, Hong Kong SAR, Macao SAR and Taiwan.

Source: FAOSTAT

Leading importers of refined sugar include Italy (6.2% of global import volume in 2012), USA (5.1%), United Arab Emirates and Iraq (each 4.3%). In 2012, Mozambique ranked 123rd import volume with 10,521 tons. Mozambique import volume fell 79% from 2008 to 2012; it could not be ascertained whether the country is developing self-sufficiency or substituting product. Overall global import volume was nearly flat, growing only 2.6% from 2008 to 2012. Africa imported 3.9 million tons of sugar refined in 2012, which amounted to 18.7% of global import volume. Leading African importers included Yemen, Nigeria and Somalia.

Leading Global Importers of Sugar Refined, by Import Quantity

Country	Import quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012		
1 Italy	833,134	1,100,594	1,209,483	1,283,465	1,298,320	6.2%	55.8%
2 USA	916,856	727,594	893,891	1,287,390	1,071,621	5.1%	16.9%
3 United Arab Emirates	819,652	903,479	1,264,795	1,170,881	896,299	4.3%	9.4%
4 Iraq	725,741	217,711	412,880	720,178	895,795	4.3%	23.4%
5 Belgium	379,157	651,077	690,119	645,187	702,907	3.4%	85.4%
6 China	609,000	453,749	469,261	665,943	639,458	3.1%	5.0%
7 Yemen	279,657	357,483	604,453	456,013	635,190	3.0%	127.1%
8 Germany	565,983	453,396	427,814	502,940	542,537	2.6%	-4.1%
9 Uzbekistan	483,200	510,900	539,700	531,000	540,300	2.6%	11.8%
10 Sri Lanka	538,487	441,099	508,397	603,510	524,281	2.5%	-2.6%
123 Mozambique	50,600	107,790	69,192	49,906	10,521	0.1%	-79.2%
Other	14,180,677	13,788,375	14,898,975	14,215,753	13,160,516	62.9%	-7.2%
World	20,382,144	19,713,247	21,988,960	22,132,166	20,917,745	100.0%	2.6%

Ranked by 2012 import quantity (most recent year available).

China includes mainland China, Hong Kong SAR, Macao SAR and Taiwan.

Source: FAOSTAT

Leading importers of confectionery sugar in 2012 included USA (18.3% of global import volume), Germany (5.4%), United Kingdom (5.3%) and Canada (3.7%). Mozambique imported 2,003 tons and ranked 125th for global imports in 2012.

Leading Global Importers of Sugar Confectionery, by Import Quantity

Country	Import quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012		
1 USA	545,066	513,306	542,680	544,102	545,444	18.3%	0.1%
2 Germany	146,322	139,689	154,192	154,792	159,814	5.4%	9.2%
3 United Kingdom	140,920	141,729	144,451	155,516	158,225	5.3%	12.3%
4 Canada	106,386	99,245	104,840	103,374	110,094	3.7%	3.5%
5 France	95,812	90,631	96,102	98,352	98,663	3.3%	3.0%
6 Russian Federation	73,116	69,398	82,411	83,624	87,320	2.9%	19.4%
7 China	71,831	64,272	73,518	75,568	78,925	2.7%	9.9%
8 Netherlands	72,316	82,138	78,184	83,900	78,433	2.6%	8.5%
9 Belgium	58,261	68,308	69,941	74,657	73,338	2.5%	25.9%
10 Sweden	53,261	53,277	49,954	57,943	66,184	2.2%	24.3%
125 Mozambique	8,618	10,188	6,229	8,131	2,003	0.1%	-76.8%
Other	1,354,972	1,297,677	1,380,822	1,525,194	1,517,763	51.0%	12.0%
World	2,726,881	2,629,858	2,783,324	2,965,153	2,976,206	100.0%	9.1%

Ranked by 2012 import quantity (most recent year available).

China includes mainland China, Hong Kong SAR, Macao SAR and Taiwan.

Source: FAOSTAT

Producer prices. FAOSTAT reported sugarcane producer prices for 32 countries in 2013, but did not include data for Mozambique from 2009 to 2013. Global sugarcane prices vary widely by country and year but indicate an overall downward upward trend, with an average decline of 30% during the period 2009-2013, to USD119/ton in 2013. However, based on the African

countries reporting, the price likely is lower than the global average for African producers, including Mozambique.

Global Producer Prices, Sugarcane

	Country	Annual producer price (USD/ton)					Change 2009-2013
		2009	2010	2011	2012	2013	
1	Argentina	13.99	29.15	36.51	26.72	20.30	45.1%
2	Australia	25.40	40.37	39.18	44.33	39.71	56.3%
3	Bolivia	16.37	23.65	21.09	23.15	23.91	46.1%
4	Brazil	18.45	23.98	31.08	31.90	29.87	61.9%
5	Cambodia	2,597.88	2,864.56	2,282.52	3,688.73	NA	NA
6	China	215.23		247.68	364.50	209.84	-2.5%
7	Colombia	28.68	36.59	38.94	39.18	33.55	17.0%
8	Costa Rica	28.91	34.14	38.07	42.81	42.87	48.3%
9	Dominican Republic	27.38	24.36	27.37	36.33	31.48	15.0%
10	Ecuador	40.00	30.00	30.00	27.13	29.08	-27.3%
11	Egypt	42.42	49.82	56.49	59.41	NA	NA
12	Ethiopia	94.63	82.69	80.47	101.13	NA	NA
13	Jamaica	528.45	466.28	557.98	852.05	755.24	42.9%
14	Japan	223.54	246.09	279.28	272.35	218.97	-2.0%
15	Kenya	35.43	39.08	39.44	44.87	42.80	20.8%
16	Lao PDR	117.85	122.62	127.15	127.75	184.69	56.7%
17	Malaysia	184.66	248.45	359.48	291.26	254.08	37.6%
18	Mauritius	50.23	45.75	51.51	55.93	55.50	10.5%
19	Mexico	28.75	49.07	49.32	50.43	40.33	40.3%
20	Nepal	51.76	54.83	55.66	56.55	46.14	-10.9%
21	Nigeria	NA	169.86	177.96	181.82	164.32	NA
22	Oman	NA	NA	NA	213.16	NA	NA
23	Panama	24.20	24.14	24.14	24.14	NA	NA
24	Paraguay	20.14	24.14	35.95	44.86	32.47	61.2%
25	Philippines	37.15	66.32	65.51	61.09	58.73	58.1%
26	South Africa	34.01	45.01	48.75	47.37	40.72	19.7%
27	Sri Lanka	19.10	26.13	28.60	28.84	NA	NA
28	Sudan (former)	34.78	34.78	NA	NA	NA	NA
29	Thailand	20.43	27.21	29.78	30.69	29.88	46.3%
30	USA	38.00	46.00	52.00	46.00	NA	NA
31	Venezuela	460.47	596.90	426.57	615.38	420.03	-8.8%
32	Viet Nam	30.97	38.29	40.82	50.70	46.68	50.7%
	Average	169.64	187.01	179.31	244.53	118.80	-30.0%

Countries listed are the only ones reported by FAOSTAT for the period shown.

No producer prices were reported for 2009-2013 for Mozambique.

Average shown is the straight average of countries' prices in the database.

Source: FAOSTAT

Annex 6: African Imports of Shortlisted Agriculture Products

Country	Cashew nuts, shelled							Cashew nuts, with shell						
	Import quantity (tons)					Percent of 2012	Change 2008-2012	Import quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012			2008	2009	2010	2011	2012		
1 Algeria	759	1,131	355	912	1,470	22.7%	93.7%	5	10	10	0	15	0.5%	200.0%
2 Angola														
3 Benin	2	2	0	0	0	0.0%	-100.0%	12	2	11	0	0	0.0%	-100.0%
4 Botswana	16	25	21	46	92	1.4%	475.0%	11	28	3	5	9	0.3%	-18.2%
5 Burkina Faso	0	0	0	0	3	0.0%		142	0	59	182	372	13.2%	162.0%
6 Burundi								0	0	0	0	0	0.0%	
7 Cabo Verde	0	2	2	3	2	0.0%		0	0	0	0	2	0.1%	
8 Cameroon	2	0	0	0	0	0.0%	-100.0%	0	0	0	0	0	0.0%	
9 Central African Republic													0.0%	
10 Chad													0.0%	
11 Comoros													0.0%	
12 Congo								0	0	0	0	0	0.0%	
13 Côte d'Ivoire	0	0	0	6	10	0.2%		1	0	8	3	0	0.0%	-100.0%
14 DR Congo	0	0	0	0	0	0.0%		2	2	2	2	2	0.1%	0.0%
15 Djibouti													0.0%	
16 Egypt	1,938	1,263	1,591	2,225	1,250	19.3%	-35.5%	63	319	68	121	784	27.7%	1144.4%
17 Equatorial Guinea													0.0%	
18 Eritrea													0.0%	
19 Ethiopia	4	0	5	1	5	0.1%	25.0%				1	3	0.1%	
20 Gabon													0.0%	
21 Gambia	0	0	0	0	0	0.0%		0	0	1,975	0	1	0.0%	
22 Ghana	0	1	3	2	3	0.0%		93	181	24	4,500	1,002	35.5%	977.4%
23 Guinea													0.0%	
24 Guinea-Bissau													0.0%	
25 Kenya	57	18	18	41	28	0.4%	-50.9%	80	200	36	34	30	1.1%	-62.5%
26 Lesotho													0.0%	
27 Liberia													0.0%	
28 Libya								0	0	0	0	0	0.0%	
29 Madagascar		1	0	0	0	0.0%		0	0	0	0	0	0.0%	
30 Malawi	0	3	2	1	1	0.0%							0.0%	
31 Mali					0	0.0%		0	0	0	0	1	0.0%	
32 Mauritania													0.0%	
33 Mauritius	47	35	29	45	17	0.3%	-63.8%	4	18	0	5	4	0.1%	0.0%
34 Morocco	185	447	534	174	183	2.8%	-1.1%	15	53	0	0	210	7.4%	1300.0%
35 Mozambique					1	0.0%						0	0.0%	
36 Namibia	0	0	64	0	29	0.4%		0	0	0	0	32	1.1%	
37 Niger				2	0	0.0%		0	0	0	0	0	0.0%	
38 Nigeria								20	20	12	12	0	0.0%	-100.0%
39 Rwanda		1	1	21	39	0.6%					3	52	1.8%	
40 Sao Tome and Principe													0.0%	
41 Senegal				0	3	0.0%		0	0	0	0	0	0.0%	
42 Seychelles	1	2	8	2	2	0.0%	100.0%	16	16	0	0	0	0.0%	-100.0%
43 Sierra Leone								0	0	0	0	0	0.0%	
44 Somalia													0.0%	
45 South Africa	1,649	1,444	1,817	1,960	2,647	40.8%	60.5%	404	796	485	262	53	1.9%	-86.9%
46 Sudan (former)	3	2	1	0		0.0%	-100.0%						0.0%	
47 Swaziland	1	1	1	4	4	0.1%	300.0%	0	0	0	0	0	0.0%	
48 Tanzania	1	66	1	17	2	0.0%	100.0%	4	21	1	2	0	0.0%	-100.0%
49 Togo					0	0.0%		0	0	5	0	250	8.8%	
50 Tunisia	94	263	587	564	650	10.0%	591.5%	0	0	257	59	0	0.0%	
51 Uganda	3	5	8	11	9	0.1%	200.0%	0	1	1	1	1	0.0%	
52 Zambia	0	1	5	3	18	0.3%		0	0	0	1	2	0.1%	
53 Zimbabwe	1	2	3	9	13	0.2%	1200.0%	0	1	2	2	1	0.0%	
Total Africa	4,763	4,715	5,056	6,049	6,481	100.0%	36.1%	872	1,668	2,959	5,195	2,826	100.0%	224.1%

No data reported for 2008-2012.

Top 5 importer in 2012

No imports were reported for cassava (form unspecified) during 2008-2012.

Only 1 country reported import of sugar non-centrifugal (Namibia, 22 tons in 2012).

Source: Global Development Solutions, LLC, analysis of FAOSTAT data.

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Country	Cassava dried							Starch, cassava						
	Import quantity (tons)					Percent of 2012	Change 2008-2012	Import quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012			2008	2009	2010	2011	2012		
1 Algeria								0	0	90	0	0	0.0%	
2 Angola														
3 Benin														
4 Botswana	0	0	1	46	62	0.3%		19	35	8	0	0	0.0%	-100.0%
5 Burkina Faso	0	3	10	56	0	0.0%		0	2	46	0	3	0.0%	
6 Burundi	0	0	4,069	5,222	3,050	14.8%		0	10	106	355	124	0.5%	
7 Cabo Verde	92	68	44	18	7	0.0%	-92.4%	0	0	1	0	1	0.0%	
8 Cameroon	0	0	0	0	0	0.0%		0	0	0	0	0	0.0%	
9 Central African Republic														
10 Chad														
11 Comoros														
12 Congo	49	36	36	36	36	0.2%	-26.5%	0	0	0	0	0	0.0%	
13 Côte d'Ivoire								3	0	0	0	0	0.0%	-100.0%
14 DR Congo	760	18	59	30	48	0.2%	-93.7%							
15 Djibouti								0	0	0	0	0	0.0%	
16 Egypt	0	14	14	0	0	0.0%		18	13	4	1	129	0.5%	616.7%
17 Equatorial Guinea														
18 Eritrea														
19 Ethiopia					1	0.0%								
20 Gabon	10	14	14	14	19	0.1%	90.0%	168	168	168	168	168	0.7%	0.0%
21 Gambia	24	9	0	19	61	0.3%	154.2%	37	3	0	0	4	0.0%	-89.2%
22 Ghana				1	0	0.0%		224	353	350	213	312	1.3%	39.3%
23 Guinea														
24 Guinea-Bissau														
25 Kenya	180	900	0	0	0	0.0%	-100.0%	731	1,054	76	3,447	244	1.0%	-66.6%
26 Lesotho														
27 Liberia														
28 Libya														
29 Madagascar								157	228	153	430	236	1.0%	50.3%
30 Malawi	0	0	0	0	0	0.0%								
31 Mali	0	0	0	0	23	0.1%		1	1	1	1	128	0.5%	12700.0%
32 Mauritania	0	0	0	0	0	0.0%								
33 Mauritius	0	0	0	0	0	0.0%		154	254	70	125	149	0.6%	-3.2%
34 Morocco	0	0	0	0	0	0.0%		0	0	0	0	0	0.0%	
35 Mozambique					0	0.0%		0	0	0	0	2	0.0%	
36 Namibia	80	80	80	80	34	0.2%	-57.5%	0	0	0	0	18	0.1%	
37 Niger	0	0	21	0	7	0.0%		0	0	0	0	0	0.0%	
38 Nigeria								202	202	425	2,472	591	2.5%	192.6%
39 Rwanda	147	3,982	7,921	2,676	6,822	33.0%	4540.8%	29	5	72	16	27	0.1%	-6.9%
40 Sao Tome and Principe														
41 Senegal	0	0	0	0	0	0.0%		2,109	1,210	1,176	2,133	2,213	9.4%	4.9%
42 Seychelles	4	4	4	1	1	0.0%	-75.0%							
43 Sierra Leone														
44 Somalia														
45 South Africa	27	26	2	65	128	0.6%	374.1%	24,989	21,573	19,702	15,237	18,661	79.1%	-25.3%
46 Sudan (former)														
47 Swaziland	0	0	0	0	0	0.0%		306	306	306	306	306	1.3%	0.0%
48 Tanzania	0	0	0	0	3	0.0%		0	0	0	0	0	0.0%	
49 Togo				351	78	0.4%		107	160	149	218	129	0.5%	20.6%
50 Tunisia				1	0	0.0%		0	0	0	0	0	0.0%	
51 Uganda	1,655	20,319	24	877	10,283	49.8%	521.3%	13	0	0	2	8	0.0%	-38.5%
52 Zambia	0	0	0	0	0	0.0%		6	51	12	0	24	0.1%	300.0%
53 Zimbabwe					4	0.0%		2	96	76	30	117	0.5%	5750.0%
Total Africa	3,028	25,473	12,299	9,493	20,667	100.0%	582.5%	29,275	25,724	22,991	25,154	23,594	100.0%	-19.4%

No data reported for 2008-2012.

Top 5 importer in 2012

No imports were reported for cassava (form unspecified) during 2008-2012.

Only 1 country reported import of sugar non-centrifugal (Namibia, 22 tons in 2012).

Source: Global Development Solutions, LLC, analysis of FAOSTAT data.

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Country	Soybeans							Oil, soybean							
	Import quantity (tons)						Percent of 2012	Change 2008-2012	Import quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012	2012			2008	2009	2010	2011	2012		
1 Algeria	31	135	120	52	113	0.0%	264.5%	330,991	391,096	375,689	484,491	464,721	27.4%	40.4%	
2 Angola	190	131	27	132	189	0.0%	-0.5%	94,400	87,600	65,900	107,226	60,230	3.6%	-36.2%	
3 Benin	0	0	0	0	0	0.0%		294	79	19	400	400	0.0%	36.1%	
4 Botswana	2,424	7,416	4,001	3,176	3,527	0.1%	45.5%	73	31	1	71	46	0.0%	-37.0%	
5 Burkina Faso	40	0	0	0	10,189	0.4%	25372.5%	600	600	31	80	60	0.0%	-90.0%	
6 Burundi	1,035	305	0	0	3,765	0.2%	263.8%	14	2	0	0	0	0.0%	-100.0%	
7 Cabo Verde	35	0	1	4	1	0.0%	-97.1%	7,545	6,386	6,717	5,606	6,640	0.4%	-12.0%	
8 Cameroon		1	1	4	1	0.0%		6,855	2,025	4,000	389	201	0.0%	-97.1%	
9 Central African Republic								414	1,042	1,106	346	0	0.0%	-100.0%	
10 Chad															
11 Comoros								0	0	0	0	0	0.0%		
12 Congo	0	0	0	0	0	0.0%		233	495	579	522	104	0.0%	-55.4%	
13 Côte d'Ivoire	0	1	210	0	21	0.0%		916	523	563	1,488	545	0.0%	-40.5%	
14 DR Congo	35	35	6	97	61	0.0%	74.3%	2,503	3,000	3,000	2,300	5,300	0.3%	111.7%	
15 Djibouti								854	533	929	2,442	229	0.0%	-73.2%	
16 Egypt	1,192,400	1,471,700	1,752,302	1,712,400	1,815,300	76.7%	52.2%	228,865	237,100	304,200	350,101	115,500	6.8%	-49.5%	
17 Equatorial Guinea								2,875	2,785	2,528	728	2,949	0.2%	2.6%	
18 Eritrea								1,401	1,150	1,500	1,500	1,500	0.1%	7.1%	
19 Ethiopia	574	6,570	512	1,406	364	0.0%	-36.6%	6,790	1,073	1,732	7,481	1,895	0.1%	-72.1%	
20 Gabon	1,064	1,425	1,623	1,748	1,792	0.1%	68.4%	936	900	1,000	1,000	1,100	0.1%	17.5%	
21 Gambia					1	0.0%		1,502	19	418	237	0	0.0%	-100.0%	
22 Ghana	4,401	198	169	109	25	0.0%	-99.4%	3,500	2,466	3,370	4,088	2,849	0.2%	-18.6%	
23 Guinea	756	756	0	0	0	0.0%	-100.0%	1,410	100	477	200	2,070	0.1%	46.8%	
24 Guinea-Bissau								2,400	2,400	2,366	867	601	0.0%	-75.0%	
25 Kenya	8,481	20,019	15,778	5,613	1,926	0.1%	-77.3%	10,194	100	482	4,422	654	0.0%	-93.6%	
26 Lesotho															
27 Liberia	0	0	80	20	20	0.0%		37	37	663	922	427	0.0%	1054.1%	
28 Libya	2	2	79	79	79	0.0%	3850.0%	14,940	13,000	15,000	8,000	9,300	0.5%	-37.8%	
29 Madagascar	975	49	324	109	2	0.0%	-99.8%	39,361	22,788	21,657	15,636	17,487	1.0%	-55.6%	
30 Malawi	8,437	2,173	1,868	90	790	0.0%	-90.6%	14,950	13,942	14,167	18,500	18,300	1.1%	22.4%	
31 Mali	41	41	41	41	1	0.0%	-97.6%	29	27	33	218	244	0.0%	741.4%	
32 Mauritania	0	0	0	0	0	0.0%		62,348	4,164	64,300	81,001	92,821	5.5%	48.9%	
33 Mauritius	222	160	229	144	174	0.0%	-21.6%	19,346	26,312	8,611	20,354	22,112	1.3%	14.3%	
34 Morocco	347,109	308,244	204,489	32,773	99,662	4.2%	-71.3%	364,871	394,711	373,563	350,748	391,366	23.1%	7.3%	
35 Mozambique	36	137	239	2,129	3,279	0.1%	9008.3%	35,700	10,100	20,500	45,000	12,909	0.8%	-63.8%	
36 Namibia	34	107	1	9	184	0.0%	441.2%	40	66	214	163	139	0.0%	247.5%	
37 Niger	0	0	0	0	102	0.0%		218	246	838	24	17	0.0%	-92.2%	
38 Nigeria	83	74	9	9	5,721	0.2%	6792.8%	1,400	2,500	331	4,500	400	0.0%	-71.4%	
39 Rwanda	60	1,475	1,397	465	818	0.0%	1263.3%	197	700	614	956	719	0.0%	265.0%	
40 Sao Tome and Principe								1,924	2,077	1,607	1,521	2,610	0.2%	35.7%	
41 Senegal	0	0	12,000	5,500	40	0.0%	#DIV/0!	83,824	75,847	77,804	30,940	59,880	3.5%	-28.6%	
42 Seychelles	2,071	1,500	2,000	2,050	2,100	0.1%	1.4%	0	0	0	0	0	0.0%		
43 Sierra Leone								527	1,000	1,000	1,200	4	0.0%	-99.2%	
44 Somalia								680	1,500	1,700	1,800	2,000	0.1%	194.1%	
45 South Africa	17,952	1,496	2,355	1,539	986	0.0%	-94.5%	247,888	137,801	272,963	277,729	197,938	11.7%	-20.2%	
46 Sudan (former)	71	68	44	150		0.0%	-100.0%	3,600	1,900	4,000	100			-100.0%	
47 Swaziland	520	520	520	520	520	0.0%	0.0%	88	88	88	88	240	0.0%	172.7%	
48 Tanzania	700	2,220	3,691	310	916	0.0%	30.9%	12,097	7,979	18,928	14,396	11,611	0.7%	-4.0%	
49 Togo	6	501	281	0	0	0.0%	-100.0%	211	900	1,000	117	366	0.0%	73.5%	
50 Tunisia	19,334	225,405	421,800	462,652	412,355	17.4%	2032.8%	237,609	140,271	157,622	161,370	107,420	6.3%	-54.8%	
51 Uganda	1	0	254	138	324	0.0%	32300.0%	0	1	1	9	4,900	0.3%		
52 Zambia	23,752	190	27	2,426	505	0.0%	-97.9%	13,366	8,703	7,459	12,193	26,179	1.5%	95.9%	
53 Zimbabwe	8,400	1,300	20,818	3,258	460	0.0%	-94.5%	1,335	1,000	21,937	30,977	46,917	2.8%	3414.4%	
Total Africa	1,641,272	2,054,354	2,447,296	2,239,152	2,366,313	100.0%	44.2%	1,862,151	1,609,165	1,863,207	2,054,447	1,693,900	100.0%	-9.0%	

No data reported for 2008-2012.

Top 5 importer in 2012

No imports were reported for cassava (form unspecified) during 2008-2012.

Only 1 country reported import of sugar non-centrifugal (Namibia, 22 tons in 2012).

Source: Global Development Solutions, LLC, analysis of FAOSTAT data.

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Country	Soya sauce							Sugar confectionery						
	Import quantity (tons)					Percent of 2012	Change 2008-2012	Import quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012			2008	2009	2010	2011	2012		
1 Algeria	64	100	30	87	71	1.5%	10.9%	20,745	15,040	9,721	17,808	15,235	5.7%	-26.6%
2 Angola								15,293	17,768	18,449	22,411	33,371	12.5%	118.2%
3 Benin	1	15	0	5	12	0.3%	1100.0%	4,599	9,744	9,764	10,854	8,059	3.0%	75.2%
4 Botswana	27	30	35	18	42	0.9%	55.6%	4,436	6,370	12,497	6,862	5,119	1.9%	15.4%
5 Burkina Faso	0	0	2	1	20	0.4%		3,473	5,589	4,560	5,642	5,675	2.1%	63.4%
6 Burundi	0	1	2	0	1	0.0%		489	626	785	900	1,028	0.4%	110.2%
7 Cabo Verde	4	8	4	5	10	0.2%	150.0%	760	982	543	885	627	0.2%	-17.5%
8 Cameroon	3	5	4	17	10	0.2%	233.3%	5,538	5,634	7,239	7,492	6,950	2.6%	25.5%
9 Central African Republic								279	278	249	281	219	0.1%	-21.5%
10 Chad								206	321	117	202	386	0.1%	87.4%
11 Comoros								360	1,368	567	567	123	0.0%	-65.8%
12 Congo	1	14	14	18	18	0.4%	1700.0%	888	1,169	1,199	1,200	1,250	0.5%	40.8%
13 Côte d'Ivoire	15	3	7	3	16	0.3%	6.7%	2,087	2,164	2,060	1,782	1,687	0.6%	-19.2%
14 DR Congo	4	4	2	5	45	1.0%	1025.0%	11,295	12,400	10,195	6,264	7,329	2.8%	-35.1%
15 Djibouti								1,714	650	354	318	562	0.2%	-67.2%
16 Egypt	332	33	348	149	522	11.3%	57.2%	3,581	4,368	5,753	11,199	7,379	2.8%	106.1%
17 Equatorial Guinea														
18 Eritrea														
19 Ethiopia	76	146	110	184	83	1.8%	9.2%	3,648	2,802	2,467	1,980	2,396	0.9%	-34.3%
20 Gabon	1	2	2	2	0	0.0%	-100.0%	829	1,185	964	1,832	1,680	0.6%	102.7%
21 Gambia	39	100	113	56	14	0.3%	-64.1%	1,385	1,921	2,198	3,593	2,355	0.9%	70.0%
22 Ghana	358	417	604	518	543	11.7%	51.7%	23,720	15,955	18,091	23,377	15,402	5.8%	-35.1%
23 Guinea	0	0	0	0	0	0.0%		6,125	6,000	2,787	4,301	3,659	1.4%	-40.3%
24 Guinea-Bissau								493	470	304	460	477	0.2%	-3.2%
25 Kenya	148	208	248	243	317	6.8%	114.2%	1,937	2,285	2,336	2,984	1,805	0.7%	-6.8%
26 Lesotho								3,200	3,300	3,500	3,500	3,500	1.3%	9.4%
27 Liberia								2,246	1,079	2,360	2,170	1,848	0.7%	-17.7%
28 Libya	0	0	108	7	7	0.2%		5,574	8,235	4,067	5,149	6,548	2.5%	17.5%
29 Madagascar	88	130	127	203	152	3.3%	72.7%	2,766	2,351	2,564	2,962	1,456	0.5%	-47.4%
30 Malawi	21	35	23	12	12	0.3%	-42.9%	2,437	3,120	3,115	2,628	1,036	0.4%	-57.5%
31 Mali	16	16	16	0	11	0.2%	-31.3%	285	1,350	1,348	1,281	496	0.2%	74.0%
32 Mauritania	1	0	0	20	0	0.0%	-100.0%	2,955	1,534	2,697	3,379	2,457	0.9%	-16.9%
33 Mauritius	559	506	396	436	587	12.7%	5.0%	1,870	1,872	1,757	1,941	2,292	0.9%	22.6%
34 Morocco	137	81	194	189	226	4.9%	65.0%	3,853	4,294	2,304	4,662	1,925	0.7%	-50.0%
35 Mozambique					28	0.6%		8,618	10,188	6,229	8,131	2,003	0.8%	-76.8%
36 Namibia	5	2	0	0	55	1.2%	1000.0%	2,996	2,094	2,296	2,441	10,286	3.9%	243.3%
37 Niger	0	0	3	2	2	0.0%		5,828	4,152	3,588	3,311	4,700	1.8%	-19.4%
38 Nigeria	78	46	88	48	64	1.4%	-17.9%	133	2,214	1,401	5,809	5,486	2.1%	4024.8%
39 Rwanda	13	9	22	28	38	0.8%	192.3%	0	3,143	3,309	3,450	2,814	1.1%	
40 Sao Tome and Principe		1	0	0	2	0.0%	#DIV/0!	98	143	105	148	148	0.1%	51.0%
41 Senegal	21	41	56	8	47	1.0%	123.8%	5,181	3,368	2,974	3,284	3,000	1.1%	-42.1%
42 Seychelles	67	89	68	79	48	1.0%	-28.4%	135	110	153	174	106	0.0%	-21.5%
43 Sierra Leone	0	0	0	0	0	0.0%	#DIV/0!	1,965	1,303	947	1,429	840	0.3%	-57.3%
44 Somalia								3,294	2,728	2,500	2,251	2,533	1.0%	-23.1%
45 South Africa	908	1,037	920	1,173	1,120	24.2%	23.3%	32,496	30,474	23,828	22,668	19,573	7.3%	-39.8%
46 Sudan (former)	2	5	11	25		0.0%	-100.0%	2,390	18,883	2,700	15,425		0.0%	-100.0%
47 Swaziland	4	8	8	8	8	0.2%	100.0%	181	198	198	52	77	0.0%	-57.5%
48 Tanzania	80	183	236	193	316	6.8%	295.0%	7,788	12,091	10,661	11,442	51,034	19.2%	555.3%
49 Togo	21	25	5	30	21	0.5%	0.0%	3,716	3,625	3,660	4,628	2,740	1.0%	-26.3%
50 Tunisia	4	4	2	7	3	0.1%	-25.0%	734	935	868	1,106	1,250	0.5%	70.3%
51 Uganda	26	58	100	83	111	2.4%	326.9%	5,396	6,268	7,214	24,340	7,545	2.8%	39.8%
52 Zambia	8	11	6	13	23	0.5%	187.5%	2,318	2,422	2,449	3,655	2,710	1.0%	16.9%
53 Zimbabwe	7	41	78	39	31	0.7%	342.9%	538	2,230	6,399	5,705	5,256	2.0%	877.0%
Total Africa	3,139	3,414	3,992	3,914	4,636	100.0%	47.7%	222,871	248,793	218,390	280,315	266,432	100.0%	19.5%
No data reported for 2008-2012.														
Top 5 importer in 2012														
No imports were reported for cassava (form unspecified) during 2008-2012.														
Only 1 country reported import of sugar non-centrifugal (Namibia, 22 tons in 2012).														
Source: Global Development Solutions, LLC, analysis of FAOSTAT data.														

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Country	Sugar Raw Centrifugal						Sugar refined							
	Import quantity (tons)					Percent of 2012	Change 2008-2012	Import quantity (tons)					Percent of 2012	Change 2008-2012
	2008	2009	2010	2011	2012			2008	2009	2010	2011	2012		
1 Algeria	774,809	811,724	1,186,023	1,346,695	1,628,872	31.9%	110.2%	321,842	404,264	148,943	204,659	43,618	1.1%	-86.4%
2 Angola	333	14,016	21,497	24,843	9,664	0.2%	2802.1%	309,694	209,190	235,999	211,668	230,455	5.9%	-25.6%
3 Benin	111	508	0	880	1,100	0.0%	891.0%	44,449	39,551	42,610	107,866	76,027	1.9%	71.0%
4 Botswana	14,335	29,612	13,059	12,298	5,110	0.1%	-64.4%	47,884	48,647	52,348	50,376	60,476	1.5%	26.3%
5 Burkina Faso	41	12	5,000	208	2,103	0.0%	5029.3%	25,133	24,549	23,522	61,658	84,122	2.1%	234.7%
6 Burundi	828	836	2,832	10,649	13,334	0.3%	1510.4%	11,760	8,274	10,725	11,000	12,076	0.3%	2.7%
7 Cabo Verde	51	488	395	413	461	0.0%	803.9%	12,156	17,485	12,015	18,591	14,455	0.4%	18.9%
8 Cameroon	0	2	2	0	2	0.0%		51,162	32,871	74,244	90,390	64,511	1.6%	26.1%
9 Central African Republic	0	0	0	0	0	0.0%		10,894	11,311	9,879	13,225	13,500	0.3%	23.9%
10 Chad	2,866	0	3,686	3,500	3,000	0.1%	4.7%	45,785	42,952	59,788	88,000	91,534	2.3%	99.9%
11 Comoros	32	32	445	813	375	0.0%	1071.9%	6,984	4,529	5,642	4,181	4,355	0.1%	-37.6%
12 Congo	58,257	17,748	267	0	42,965	0.8%	-26.2%	3,044	2,051	2,103	1,500	6,732	0.2%	121.2%
13 Côte d'Ivoire	39	3	4	0	0	0.0%	-100.0%	432	522	8,359	14,266	214	0.0%	-50.5%
14 DR Congo	43,335	138,860	124,464	102,378	24,350	0.5%	-43.8%	34,051	30,106	15,498	46,836	32,324	0.8%	-5.1%
15 Djibouti	27,380	4,524	26,903	8,473	44,974	0.9%	64.3%	131,682	64,542	108,576	143,256	90,208	2.3%	-31.5%
16 Egypt	1,161,491	653,974	1,074,541	1,144,346	763,083	14.9%	-34.3%	92,550	85,318	49,057	104,125	128,589	3.3%	38.9%
17 Equatorial Guinea								3,647	5,049	5,322	7,079	6,280	0.2%	72.2%
18 Eritrea								29,596	70,276	44,218	77,308	54,151	1.4%	83.0%
19 Ethiopia	133,910	69,169	138,980	233,157	83,919	1.6%	-37.3%	24,944	14,554	33,963	12,867	123,467	3.2%	395.0%
20 Gabon	1	0	0	0	0	0.0%	-100.0%	0	0	0	0	0	0.0%	
21 Gambia	4	1	86	1,492	27	0.0%	575.0%	89,825	89,230	150,753	68,476	64,977	1.7%	-27.7%
22 Ghana	6,212	664	79	1,190	607	0.0%	-90.2%	236,498	330,089	359,113	453,200	195,290	5.0%	-17.4%
23 Guinea	627	695	1	1	1	0.0%	-99.8%	129,209	102,452	98,500	122,889	92,538	2.4%	-28.4%
24 Guinea-Bissau	279	28	541	0	0	0.0%	-100.0%	12,748	16,674	26,324	11,730	3,538	0.1%	-72.2%
25 Kenya	61,313	41,351	99,807	149,935	14,155	0.3%	-76.9%	158,863	143,186	157,917	114,626	106,300	2.7%	-33.1%
26 Lesotho								27,500	28,000	28,000	28,000	30,000	0.8%	9.1%
27 Liberia	335	11,541	7,510	0	0	0.0%	-100.0%	18,558	5,834	13,570	13,184	13,393	0.3%	-27.8%
28 Libya	4,031	14,698	85	2,899	6	0.0%	-99.9%	187,593	171,993	170,673	150,548	199,486	5.1%	6.3%
29 Madagascar	57,774	54,019	43,241	55,298	36,512	0.7%	-36.8%	59,814	73,251	48,044	52,870	46,838	1.2%	-21.7%
30 Malawi	5	16	29	5	5	0.0%	0.0%	124	102	14	53	13	0.0%	-89.5%
31 Mali	121	121	80	80	1,364	0.0%	1027.3%	128,912	70,500	85,060	90,000	143,248	3.7%	11.1%
32 Mauritania	9	9	147	24	1,808	0.0%	19988.9%	190,199	159,780	195,000	198,400	120,560	3.1%	-36.6%
33 Mauritius	6,520	6,317	700	26,358	54,000	1.1%	728.2%	34,690	26,988	20,769	16,378	19,775	0.5%	-43.0%
34 Morocco	746,363	973,611	794,471	851,814	999,793	19.6%	34.0%	4,902	2,205	3,841	7,508	2,772	0.1%	-43.5%
35 Mozambique					12,015	0.2%		50,600	107,790	69,192	49,906	10,521	0.3%	-79.2%
36 Namibia	3,561	12,500	13,000	13,200	99,261	1.9%	2687.4%	417	27,366	30,000	3,036	1,461	0.0%	250.4%
37 Niger	1	1	34	570	405	0.0%	40400.0%	67,957	67,700	64,404	56,116	78,600	2.0%	15.7%
38 Nigeria	1,139,604	953,741	953,227	1,089,371	842,608	16.5%	-26.1%	395,685	244,995	451,524	357,336	324,775	8.3%	-17.9%
39 Rwanda	20,451	22,200	32,264	32,030	25,384	0.5%	24.1%	4,709	8,065	14,182	15,084	37,693	1.0%	700.4%
40 Sao Tome and Principe	311	217	570	600	1,297	0.0%	317.0%	1,071	5,241	715	1,850	352	0.0%	-67.1%
41 Senegal	4	4	1	4	9	0.0%	125.0%	51,865	81,006	118,985	139,997	130,990	3.3%	152.6%
42 Seychelles	1,857	1,857	706	556	1,113	0.0%	-40.1%	1,665	1,850	1,500	1,642	1,622	0.0%	-2.6%
43 Sierra Leone								22,280	19,300	11,000	20,346	22,185	0.6%	-0.4%
44 Somalia	63,734	10,328	35,769	18,839	79,942	1.6%	25.4%	157,802	193,000	94,590	107,862	244,308	6.2%	54.8%
45 South Africa	106,628	44,017	51,896	78,641	57,696	1.1%	-45.9%	51,463	76,295	51,673	65,170	149,399	3.8%	190.3%
46 Sudan (former)	39,050	99,800	59,650	100,976		0.0%	-100.0%	273,330	319,180	172,700	421,411		0.0%	-100.0%
47 Swaziland	1,252	834	834	834	170	0.0%	-86.4%	2,132	868	868	868	868	0.0%	-59.3%
48 Tanzania	363	230	15,157	6,000	32,110	0.6%	8745.7%	66,361	99,903	132,032	161,573	234,263	6.0%	253.0%
49 Togo	609	18,066	32,645	39,272	20,826	0.4%	3319.7%	34,223	127,921	131,700	24,017	55,016	1.4%	60.8%
50 Tunisia	132,306	73,577	98,437	143,241	157,396	3.1%	19.0%	192,025	228,717	232,264	291,529	225,663	5.8%	17.5%
51 Uganda	53,162	51,943	67,678	24,777	23,552	0.5%	-55.7%	85,063	78,708	62,244	117,086	161,919	4.1%	90.4%
52 Zambia	2,906	3	3	7	2	0.0%	-99.9%	54	19	47	24	805	0.0%	1390.7%
53 Zimbabwe	1,756	14,854	167,071	14,533	21,762	0.4%	1139.3%	1,819	23,985	38,558	37,385	56,464	1.4%	3004.1%
Total Africa	4,668,967	4,148,751	5,073,817	5,541,200	5,107,138	100.0%	9.4%	3,947,645	4,048,234	3,978,567	4,468,951	3,912,724	100.0%	-0.9%

No data reported for 2008-2012.

Top 5 importer in 2012

No imports were reported for cassava (form unspecified) during 2008-2012.

Only 1 country reported import of sugar non-centrifugal (Namibia, 22 tons in 2012).

Source: Global Development Solutions, LLC, analysis of FAOSTAT data.

Annex 7: Common Uses for High Value Wood Grown in Mozambique

Common Use	Quality (a)																																						
	P	P	1	1	1	1	1	P	P	P	P	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	4		
	Pau Rosa	Pau Preto	Panga panga	Pau Ferro	Chamfuta	Umbila	Mectusse	Tamboiti	Chacate-Preto	Tail	Sandalo	Chanate	Mondzo	Mutondo	Missadra	Tanga-Tanga	Umbatua	Muaga	Meperpe	Muirira	Sumauma	Messasa	Mucarala	Muinimbe	Mohuro	Meronha	Meril	Messinge	Merangara	Nanuno	Metacha	Mutolo	Mulonde	Nacuva	Chacate encarnado	Inconol/Messusso	Mtumbui		
1.0 Veneer, tropical wood	X	X	X	X		X									X	X	X	X			X			X	X											X	X	X	X
2.0 Carvings	X						X			X	X	X					X												X	X		X							X
3.0 Furniture	X	X	X	X		X	X	X	X	X		X	X			X	X	X	X	X	X		X	X	X	X		X							X		X	X	X
3.1 General																						X																	
3.2 Office									X							X						X																	
3.3 Bedroom									X							X																							
3.4 Kitchen									X	X						X	X					X		X															X
4.0 Turned objects	X	X	X	X				X	X	X		X	X		X	X	X	X				X			X	X	X		X	X					X				
5.0 Specialty wood items	X												X							X						X										X	X		
6.0 Carpentry & Joinery				X		X	X		X	X	X					X		X	X	X	X	X	X	X	X					X	X				X	X	X	X	
7.0 Panels			X													X				X						X									X	X	X		
8.0 Musical instruments			X	X					X			X				X				X																			
9.0 Flooring			X	X	X		X	X	X	X			X		X	X		X		X	X	X	X	X					X	X				X	X	X	X		
10.0 Interior trim				X												X					X		X	X										X					
11.0 Doors & frames				X																X	X																		
12.0 Windows & frames				X																X																			
13.0 Staircase				X																																			
14.0 Oil							X																																
15.0 Bridge construction						X							X	X									X														X		
16.0 Housing construction									X	X	X		X	X				X	X	X	X	X	X		X	X	X		X	X				X				X	
17.0 Ship building									X	X					X	X								X						X							X		
18.0 Railway sleepers									X		X				X		X					X							X							X			X

(a) P: precious; 1: grade 1; 2: grade 2; 3: grade 3; 4: grade 4

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Compiled by Global Development Solutions, LLC

Annex 8: Donor Support Programs for Forestry Sector

	Project	Purpose	Donor	Organisation	Year	Amount (USD)	Type
1	The Forest Preservation Programme	Forestry policy & admin. management	Japan	MOFA	2010	7,976,244	ODA Grants
2	Mozambique, Support to National Forest Programme	Forestry policy & admin. management	Finland	MFA	2010	3,308,901	ODA Grants
3	Forest Inventory	Forestry policy & admin. management	Finland	MFA	2002	2,152,483	ODA Grants
4	Forest Inventory	Forestry development	Finland	MFA	2003	1,846,447	ODA Grants
5	Mozambique, Support to National Forest Programme	Forestry policy & admin. management	Finland	MFA	2012	1,398,138	ODA Grants
6	TC AGGREGATED ACTIVITIES	Forestry policy & admin. management	Japan	JICA	2013	1,259,266	ODA Grants
7	<i>Not specified</i>	Forestry services	Netherlands	MFA	2001	1,239,477	ODA Grants
8	Forest Inventory	Forestry policy & admin. management	Finland	MFA	2001	1,209,784	ODA Grants
9	Support to the Forest Carbon Partnership Facility's Readiness Fund / Appui au Fonds de préparation du Fonds de partenariat pour le carbone forestier	Forestry policy & admin. management	Canada	CIDA	2011	1,091,902	ODA Grants
10	Testing REDD+ delivery models in the Beira landscape-corridor of Mozambi	Forestry policy & admin. management	Norway	MFA	2013	1,086,934	ODA Grants
11	FORESTRY AND WILDLIFE RESOURCES PROJECTS	Forestry development	AfDF		2001	980,100	ODA Loans
12	SUPPORT TO COMMUNITY FORESTRY	Forestry services	Netherlands	MFA	2002	919,800	ODA Grants
13	FORESTRY AND WILDLIFE RESOURCES PROJECTS	Forestry development	AfDF		2002	869,693	ODA Loans
14	Mozambique, Support to National Forest Programme	Forestry policy & admin. management	Finland	MFA	2011	805,120	ODA Grants
15	FORESTRY AND WILDLIFE RESOURCES PROJECTS	Forestry development	AfDF		2003	797,953	ODA Loans
16	Mozambique, Support to National Forest Programme	Forestry policy & admin. management	Finland	MFA	2009	794,684	ODA Grants
17	Prop.318B7-6200/02/0362/TF	Fuelwood/charcoal	EU Institutions	EDF	2007	759,171	ODA Grants
18	Agricultural Sector Public Expenditure Program	Forestry development	IDA	IDA	2006	720,513	ODA Loans
19	South-South REDD: A Brazil-Mozambique Initiative	Forestry policy & admin. management	Norway	MFA	2010	711,391	ODA Grants
20	Forest Inventory	Forestry development	Finland	MFA	2000	642,776	ODA Grants
21	Miombo Community land use and Carbon Management - N'hambita pilot Project. B7-6200/2002/063-241/MZ	Forestry policy & admin. management	EU Institutions	EDF	2010	598,670	ODA Grants
22	South-South REDD: A Brazil-Mozambique Initiative	Forestry policy & admin. management	Norway	MFA	2009	477,829	ODA Grants
23	Mozambique	Forestry policy & admin. management	Finland	MFA	2013	418,576	ODA Grants
24	Testing REDD+ delivery models in the Beira landscape-corridor of Mozambi	Forestry policy & admin. management	Norway	MFA	2012	417,204	ODA Grants
25	APPEL A PROPOSITION NÂ° SCRE/111699/C/G - 26 PROJETS (ENV + FOR)	Fuelwood/charcoal	EU Institutions	CEC	2005	412,627	ODA Grants
26	HIGH- YIELD CROPS IN NAMAACHA FOREST AREA	Forestry development	Italy	DGCS	2012	404,396	ODA Grants
27	MAP COMMUNITY FORESTRY	Forestry services	Netherlands	MFA	2003	387,490	ODA Grants
28	South-South REDD: A Brazil-Mozambique Initiative	Forestry policy & admin. management	Norway	MFA	2011	356,850	ODA Grants
29	Green Resources AS-Industrial Plantations in Lurio Region	Forestry development	Norway	NORAD	2012	354,878	ODA Grants
30	Agricultural Sector Public Expenditure Program	Forestry development	IDA		2005	332,841	ODA Loans
31	GESTAO COMUNITARIA SUSTENTAVEL E BOA GOVERNACAO DE FLORESTAS, ZAMBEZIA, MOCAMBIQUE	Forestry development	EU Institutions	CEC	2013	271,495	ODA Grants
32	FORESTRY AND WILDLIFE RESOURCES PROJECTS	Forestry development	AfDF		2004	252,893	ODA Loans
33	<i>Not specified</i>	Forestry policy & admin. management	Sweden	Sida	2005	237,592	ODA Grants

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	Projects	Purpose	Donor	Organisation	Year	Amount (USD)	Type
34	GESTAO COMUNITARIA SUSTENTAVEL E BOA GOVERNACAO DE FLORESTAS, ZAMBEZIA, MOCAMBIQUE	Forestry development	EU Institutions	EDF	2010	223,607	ODA Grants
35	Farmers' Clubs for Forests - Promoting Sustainable Natural Resource Management in and around Quirimbas Park	Forestry policy & admin. management	EU Institutions	EDF	2007	213,198	ODA Grants
36	Agricultural Sector Public Expenditure Program	Forestry development	IDA		2001	209,658	ODA Loans
37	Agricultural Sector Public Expenditure Program	Forestry development	IDA		2003	195,472	ODA Loans
38	Agricultural Sector Public Expenditure Program	Forestry development	IDA		2004	195,472	ODA Loans
39	Agricultural Sector Public Expenditure Program	Forestry development	IDA		2002	191,683	ODA Loans
40	BÅiredygtigt skovdrift i Mozambique	Forestry policy & admin. management	Denmark	MFA	2010	170,393	ODA Grants
41	Farmers_ Clubs for Forests - Promoting Sustainable Natural Resource Management in and around Quirimbas Park	Forestry policy & admin. management	EU Institutions	EDF	2008	163,475	ODA Grants
42	Green Resources AS-Industrial Plantations in Lurio Region	Forestry development	Norway	NORAD	2011	151,661	ODA Grants
43	Forestry policy and administrative management	Forestry policy & admin. management	Germany	BMZ	2008	134,976	ODA Grants
44	Forestry policy and administrative management	Forestry policy & admin. management	Germany	BMZ	2009	125,448	ODA Grants
45	DEVELOPMENT WORKER	Forestry policy & admin. management	Germany	BMZ	2005	115,585	ODA Grants
46	Not specified	Forestry development	Denmark	MFA	2011	114,544	ODA Grants
47	TC AGGREGATED ACTIVITIES	Forestry policy & admin. management	Japan	JICA	2011	114,532	ODA Grants
48	Forestry policy and administrative management	Forestry policy & admin. management	Germany	BMZ	2010	111,535	ODA Grants
49	TC AGGREGATED ACTIVITIES	Forestry policy & admin. management	Japan	JICA	2012	108,666	ODA Grants
50	TC AGGREGATED ACTIVITIES	Forestry policy & admin. management	Japan	JICA	2013	100,665	ODA Grants
51	TESE - NGO support	Forestry development	Portugal	IPAD	2010	92,370	ODA Grants
52	INTEGRATED SPECIALIST	Forestry education/training	Germany	BMZ	2004	86,520	ODA Grants
53	Banque de semences arboricoles pour les communitat?s agroforesti?res - Mise en place d'une plateforme d'extension agroforesti?re en vue d'une diversification des moyens de subsistance	Forestry research	Belgium	MPRF	2012	82,262	ODA Grants
54	Green Resources AS- Sanga Reforestation Project -PDD development	Forestry development	Norway	NORAD	2012	81,101	ODA Grants
55	BÅiredygtigt skovdrift i Mozambique	Forestry policy & admin. management	Denmark	MFA	2011	74,808	ODA Grants
56	Not specified	Forestry education/training	Germany	BMZ	2005	68,755	ODA Grants
57	TC AGGREGATED ACTIVITIES	Forestry policy & admin. management	Japan	JICA	2010	65,850	ODA Grants
58	DEVELOPMENT AID VOLUNTEER	Forestry policy & admin. management	Germany	BMZ	2004	62,467	ODA Grants
59	Sustainable forestry in Mozambique	Forestry policy & admin. management	Denmark	MFA	2009	56,111	ODA Grants
60	NATURAL RESSOURCE DEVELOPMENT	Fuelwood/charcoal	Denmark	DANIDA	2001	50,236	ODA Grants
61	REDD-PIN: Consultant to MICOA	Forestry policy & admin. management	Norway	MFA	2009	49,921	ODA Grants
62	Evaluation of N'hambita Pilot Project	Forestry policy & admin. management	EU Institutions	EDF	2009	49,267	ODA Grants
63	TC AGGREGATED ACTIVITIES	Forestry policy & admin. management	Japan	JICA	2012	48,075	ODA Grants
64	Agricultural Sector Public Expenditure Program	Forestry development	IDA		2000	46,113	ODA Loans
65	Local Cooperation Fund (LCF) in Mozambique	Forestry development	Finland	MFA	2008	43,271	ODA Grants
66	Not specified	Forestry policy & admin. management	Japan	JICA	2008	42,628	ODA Grants
67	Business linkage programme (Finnpartnership)	Forestry services	Finland	FF	2010	36,781	ODA Grants
68	Not specified	Forestry development	Italy	DGCS	2007	31,863	ODA Grants

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	Project	Purpose	Donor	Organisation	Year	Amount (USD)	Type
69	Support measures from 2009 budget under ENRTP	Forestry policy & admin. management	EU Institutions	EDF	2010	30,821	ODA Grants
70	TC AGGREGATED ACTIVITIES	Forestry policy & admin. management	Japan	JICA	2011	28,831	ODA Grants
71	TC AGGREGATED ACTIVITIES	Forestry policy & admin. management	Japan	JICA	2012	28,516	ODA Grants
72	TC AGGREGATED ACTIVITIES	Forestry policy & admin. management	Japan	JICA	2012	26,324	ODA Grants
73	CATEGORIZATION OF SECONDARY FORESTRY SPECIES IN MOZAMBIQUE	Forestry research	Portugal	IPAD	2003	24,900	ODA Grants
74	Strengthening of the Higher Polytechnic Institute of Gaza (Mozambique) through technological and pedagogical innovation in training and agricultural and forest research and development	Forestry research	Spain	UNIV	2011	23,490	ODA Grants
75	AGRO-FORESTAZIONE E PROTEZIONE DELLE FORESTE IN ZAMBESIA - SALDO QUOTA PARTE 2ª RATA	Forestry development	Italy	DGCS	2007	23,025	ODA Grants
76	TC AGGREGATED ACTIVITIES	Forestry policy & admin. management	Japan	JICA	2010	22,835	ODA Grants
77	TC AGGREGATED ACTIVITIES	Forestry policy & admin. management	Japan	JICA	2011	22,244	ODA Grants
78	TESE - NGO - A Sinha i Utomi (Tree is life) - Sustainable Management of Forest Resources	Forestry development	Portugal	CICL	2012	21,851	ODA Grants
79	CATEGORIZATION OF SECONDARY FORESTRY SPECIES IN MOZAMBIQUE	Forestry research	Portugal	IPAD	2004	21,618	ODA Grants
80	CATEGORIZATION OF SECONDARY FORESTRY SPECIES IN MOZAMBIQUE	Forestry research	Portugal	IPAD	2005	21,129	ODA Grants
81	TC AGGREGATED ACTIVITIES	Forestry policy & admin. management	Japan	JICA	2012	15,950	ODA Grants
82	<i>Not specified</i>	Forestry policy & admin. management	Japan	JICA	2007	15,543	ODA Grants
83	CARACTERIZAÇÃO DE ESPÁCIOS FLORESTAIS SECUNDÁRIOS DE MOZAMBIQUE	Forestry research	Portugal	IPAD	2002	15,343	ODA Grants
84	TC AGGREGATED ACTIVITIES	Forestry policy & admin. management	Japan	JICA	2013	14,868	ODA Grants
85	HIGH- YIELD CROPS IN NAMAACHA FOREST AREA	Forestry development	Italy	DGCS	2011	14,449	ODA Grants
86	TC AGGREGATED ACTIVITIES	Forestry policy & admin. management	Japan	JICA	2012	13,732	ODA Grants
87	TC AGGREGATED ACTIVITIES	Forestry policy & admin. management	Japan	JICA	2013	12,798	ODA Grants
88	Project: strengthening the Polytechnic Higher Institute of Gaza through the technological and educational innovation of the agricultural I+D training.	Forestry education/training	Spain	UNIV	2012	10,121	ODA Grants
89	Farmers' Clubs for Forests - Promoting Sustainable Natural Resource Management in and around Quirimbas Park	Forestry policy & admin. management	EU Institutions	EDF	2011	9,710	ODA Grants
90	<i>Not specified</i>	Forestry policy & admin. management	Japan	JICA	2004	9,528	ODA Grants
91	World Vision Australia ANCP Partnership	Forestry development	Australia	AusAID	2010	9,364	ODA Grants
92	CHARACTERIZATION OF THE SOUTHERN AFRICAN TROPICAL FOREST AND IMPACT ASSESSMENT OF FORESTRY IN THE CONSERVATION AREA OF THE GREAT LIMPOPO. IMPLEMENTATION OF HIGH RESOLUTION SPACE SENSORS IMAGERY. MOZAMBIQUE.	Forestry policy & admin. management	Spain	UNIV	2008	8,510	ODA Grants
93	High-yield Crops in Namaacha Forest Area	Forestry development	Italy	DGCS	2012	8,496	ODA Grants
94	Youth for the Millenium Goals / La jeunesse et les objectifs du millénaire pour le développement	Forestry development	Canada	CIDA	2009	8,142	ODA Grants
95	INSTITUTIONAL DEVELOPMENT FOR NATURAL RESOURCE MANAGEMENT (MOZAMBIQUE)	Forestry development	Canada	IDRC	2003	7,851	ODA Grants

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	Project	Purpose	Donor	Organisation	Year	Amount (USD)	Type
96	A Strategy to Improve the Management of Water and Forest in the District of Chigubo Gaza Province (Mozambique)	Forestry research	Spain	MISC	2007	7,509	ODA Grants
97	High-yield Crops in Namaacha Forest Area	Forestry development	Italy	DGCS	2010	7,453	ODA Grants
98	TC Aggregated Activities	Forestry policy & admin. management	Japan	JICA	2013	6,691	ODA Grants
99	Institutional strengthening of the Higher Education Center in Forest Engineering in Mozambique	Forestry education/training	Spain	UNIV	2010	5,298	ODA Grants
100	Researching: Study of the forest restoration activities done in Mozambique, and diffusion of the results through a virtual platform.	Forestry development	Spain	UNIV	2012	5,141	ODA Grants

Source: *Open Aid Data*

Annex 9: Mozambique Forestry Utilization Metrics

Metric	Unit	2007	2008	2009	2010	2011	2012	2013
Actual consumption	m3	535,818	550,016	538,823	723,717	797,647	884,140	956,540
Registered harvests	m3	128,354	124,867	112,584	167,955	175,871	178,210	66,320
Licensed harvests	m3	197,133	166,781	162,954	244,156	270,825	321,370	212,711
Registered harvests as % of licensed harvests	percent	65.1%	74.9%	69.1%	68.8%	64.9%	55.5%	31.2%
Licensed exports	m3	86,912	103,087	114,178	199,418	211,995	260,385	280,796
Chinese reported imports	m3	219,701	205,070	162,068	326,196	375,207	468,504	516,296
Global reported imports	m3	219,783	216,763	187,223	352,562	405,643	469,899	521,587
Chinese imports as % of all imports	percent	99.96%	94.61%	86.56%	92.52%	92.50%	99.70%	98.99%
Domestic consumption	m3	316,035	333,254	351,600	371,155	392,004	414,241	434,953
Domestic consumption as % of actual consumption	percent	59.0%	60.6%	65.3%	51.3%	49.1%	46.9%	45.5%
Lower AAC	m3	515,000	515,000	515,000	515,000	515,000	515,000	515,000
Higher AAC	m3	640,000	640,000	640,000	640,000	640,000	640,000	640,000
Unregistered harvest (illegal)	m3	407,464	425,149	426,239	555,762	621,776	705,930	890,220
Unregistered harvest as % of actual consumption	percent	76.0%	77.3%	79.1%	76.8%	78.0%	79.8%	93.1%

AAC = annual allowable cut (sets boundaries for the sustainable harvests of commercial timber, beyond which survival of forests and commercial species are threatened)

Source: *First Class Crisis: China's Criminal and Unsustainable Intervention in Mozambique's Miombo Forests*, Environmental Investigation Agency, July 2014.

Annex 10: Types and Characteristics of Mozambique Forest

Forest type	Primary location	Characteristics	Common species
Miombo	Central and northern regions, north of the Limpopo river	<ul style="list-style-type: none"> • Occupies 2/3 of Mozambique's natural forest area • Dense vegetation cover • Deciduous and semi-deciduous trees, often reaching 10 to 20 meters. • Low fauna diversity • Intense fires (important for seed germination and soil nitrification; green vegetation and moist soils prevent fires from spreading) • Generally fertile soils for agriculture • In the coastal region of Inhambane and Gaza (south) and a large part of Cabo Delgado and Niassa provinces (north), miombo woodlands are relatively simple formations with short trees and low tree density. 	<ul style="list-style-type: none"> • <i>Brachystegia spiciformis</i> • <i>Jubernardia globiflora</i> • <i>Themeda triandra</i> • <i>Panicum</i> • <i>Hyparrhenia</i> • <i>Andropogon</i> • <i>Pteleopsis myrtifolia</i> • <i>Pterocarpus angolensis</i> • <i>Parinari curatellifolia</i> • <i>Diplorrhinchus condilocarpon</i> • <i>Pseudolachnostylis maprouneifolia</i> • <i>Uapaca kirkiana</i> • <i>U. zanzibarica</i> • <i>Millettia stuhlmannii</i> • <i>Androstachys johnsonii</i> • <i>Azelia quanzensis</i> • <i>Syderoxylon inerme</i> • <i>Adansonia digitata</i>
Mopane	Limpopo-Save area and upper Zambezi Valley	<ul style="list-style-type: none"> • Trees and bushes • Dry savannahs with deciduous trees • Secondary savannahs of low and medium altitudes • Unsuitable soils • Large number of fauna 	<ul style="list-style-type: none"> • <i>Colophospermum Mopane</i> • <i>Adansonia digitata</i> (baobab tree) • <i>Azelia quanzensis</i> (<i>Chanfuta</i>, first class wood species) • <i>Sterculia rogersii</i> • <i>Sclerocarya birrea</i> • <i>Combretum sp</i> • <i>Terminalia sericea</i> • <i>Strychnos sp</i>

Source: An Overview of the Problems Faced by Mozambique's Forests, Forest-Dependent Peoples and Forest Workers, World Rainforest Movement; Background to Miombo Woodlands in Mozambique, FAO

Annex 11: Common Species Found in Miombo Woodlands, by Province

Species	Province			
	Cabo Delgado	Manica	Niassa	Sofala
<i>Annona senegalensis</i>	X	X		X
<i>Bauhinia thoningii</i>	X	X		X
<i>Brachystegia spiciformis</i>	X	X	X	X
<i>Crossopterix febrifuga</i>	X	X		X
<i>Diplorhynchus condylocarpon</i>	X	X	X	X
<i>Friesodielsia obovata</i>	X	X		X
<i>Jubernardia globiflora</i>	X		X	X
<i>Millettia stuhlmannii</i>	X	X		X
<i>Pseudolachnostylis maprouneifolia</i>	X	X	X	X
<i>Sterculia africana</i>	X	X	X	X
<i>Terminalia sericea</i>	X	X		X
<i>Terminalia stenostachya</i>	X	X		
<i>Uapaca kirkiana</i>	X		X	
<i>Uapaca sansibarica</i>	X		X	

X indicates species found in the province

Source: Background to Miombo Woodlands in Mozambique, Miombo woodlands and HIV/AIDS interactions - Mozambique Country Report, FAO, 2005

Annex 12: Tree Species and Classification for Mozambique Forestry

Commercial name	Latin name	Classification	Main uses
Pau Rosa	<i>Berchemia zeyheri</i>	Precious*	Logs (export)
Pau-preto	<i>Dalbergia malanoxylon</i>	Precious	Logs (export)
Umbila	<i>Pterocarpus angolensis</i>	Precious*	Logs (export), lumber
Mecrusse	<i>Androstachys johnsonii</i>	First class	Parquet (export), sleepers
Chanfuta	<i>Azelia quanzensis</i>	Precious*	Logs (export), lumber
Panga-Panga	<i>Millettia stuhlmannii</i>	Precious*	Logs (export), lumber
Pau Ferro	<i>Swartzia madagascariensis</i>	Precious	Logs (export)

Species shown were the seven most intensively exploited species as of 2008.

* Classified precious as of 2003; was classified first class through 2002

Source: Sun, C., L. Chen, L. Han and S. Bass, *Global Forest Product Chains: Identifying Challenges and Opportunities for China through a Global Commodity Chain Sustainability Analysis*, International Institute for Sustainable Development, 2008, as cited in John Sutton, *An Enterprise Map of Mozambique*, International Growth Centre, 2014.

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Annex 13: Reporter Country Imports of Forestry Products from Mozambique, 2009-2013

Category and Importer	Import Quantity (m3)					Percent of 2013 category	Percent of 2013 total	Change 2009-2013	Import Value (USD000)					Percent of 2013 category	Percent of 2013 total	Change 2009-2013	Implied	
	2009	2010	2011	2012	2013				2009	2010	2011	2012	2013				2009	2010
Ind Rwd Wir (C)	6,598	6,230	28,823	2,216	34,450	100.0%	3.0%	422.1%	403	380	1,758	135	2,102	100.0%	0.8%	421.6%	61	2011
Albania				491		0.0%	0.0%					30		0.0%	0.0%			
China	5,733	5,512	24,213	1,128	33,387	96.9%	2.9%		350	336	1,477	69	2,037	96.9%	0.8%		61	
Morocco				439		0.0%	0.0%					27		0.0%	0.0%			
Republic of Korea			791			0.0%	0.0%				48			0.0%	0.0%			
South Africa	865	691		3		0.0%	0.0%		53	42		0		0.0%	0.0%		61	
Switzerland			2,033			0.0%	0.0%				124			0.0%	0.0%			
Thailand			639		213	0.6%	0.0%				39		13	0.6%	0.0%			
United Kingdom			262			0.0%	0.0%				16			0.0%	0.0%			
Viet Nam			885	155	850	2.5%	0.1%				54	9	52	2.5%	0.0%			
Zimbabwe		27				0.0%	0.0%			2				0.0%	0.0%			
Ind Rwd Wir (NC) Other	58	322,901	327,923	447,323	480,280	100.0%	41.8%	827969%	35	100,863	100,257	148,671	165,810	100.0%	62.2%	473643%	603	2011
Angola			1,935			0.0%	0.0%				25			0.0%	0.0%			
Canada		610				0.0%	0.0%			40				0.0%	0.0%			
China		321,658	323,227	446,339	479,145	99.8%	41.7%		100,769	98,708	148,576	165,553		99.8%	62.1%			
Germany	58	10	9		61	0.0%	0.0%		35	9	3		175	0.1%	0.1%		603	9
India			139			0.0%	0.0%				43			0.0%	0.0%			
Japan			49			0.0%	0.0%				15			0.0%	0.0%			
Mauritius			669			0.0%	0.0%				204			0.0%	0.0%			
Portugal			1			0.0%	0.0%				58			0.0%	0.0%			
Singapore				19	934	0.2%	0.1%					1	62	0.0%	0.0%			
South Africa			17	221	132	0.0%	0.0%				1	15	9	0.0%	0.0%			
Spain			197			0.0%	0.0%				71			0.0%	0.0%			
Sweden					8	0.0%	0.0%						11	0.0%	0.0%			
Switzerland			138	724		0.0%	0.0%				357	72		0.0%	0.0%			
United Arab Emirates				20		0.0%	0.0%					7		0.0%	0.0%			
Tanzania		41	1,157			0.0%	0.0%			7	720			0.0%	0.0%			1
USA		582				0.0%	0.0%			38				0.0%	0.0%			
Viet Nam			335			0.0%	0.0%				51			0.0%	0.0%			
Zimbabwe			50			0.0%	0.0%				1			0.0%	0.0%			
Ind Rwd Wir (NC) Tropica	2,300	4,484	7,729	324,146	338,295	100.0%	29.4%	14608%	1,591	1,190	2,252	31,718	7,332	100.0%	2.7%	361%	692	2011
Albania				129		0.0%	0.0%					35		0.0%	0.0%			
Australia			198			0.0%	0.0%				32			0.0%	0.0%			
Belgium		57				0.0%	0.0%			40				0.0%	0.0%			
China	1,487	4,002	5,220	323,000	338,000	99.9%	29.4%		1,295	894	1,554	31,267	7,254	98.9%	2.7%		871	2
Germany	27					0.0%	0.0%		21					0.0%	0.0%		778	
India		42	205	1,000		0.0%	0.0%			31	141	410		0.0%	0.0%			7
Japan	7	29		17		0.0%	0.0%		8	20		6		0.0%	0.0%		1,143	6
Mauritius					42	0.0%	0.0%						31	0.4%	0.0%			
Mongolia		8				0.0%	0.0%			6				0.0%	0.0%			7
Panama	11					0.0%	0.0%		13					0.0%	0.0%		1,182	
Singapore		33	1,014			0.0%	0.0%			23	164			0.0%	0.0%			6
South Africa	260	151	171		230	0.1%	0.0%		43	25	28		38	0.5%	0.0%		165	1
Sweden		1				0.0%	0.0%			0				0.0%	0.0%			
Switzerland	33	30	600			0.0%	0.0%		40	60	215			0.0%	0.0%		1,212	2,0
Thailand		12			5	0.0%	0.0%			8			4	0.1%	0.0%			6
Turkey			10			0.0%	0.0%				12			0.0%	0.0%			
United Arab Emirates	351					0.0%	0.0%		57					0.0%	0.0%		162	
USA	103					0.0%	0.0%		89					0.0%	0.0%		864	
Viet Nam		119	176		18	0.0%	0.0%			83	76		5	0.1%	0.0%			6
Zambia			135			0.0%	0.0%				30			0.0%	0.0%			
Zimbabwe	21					0.0%	0.0%		25					0.0%	0.0%		1,190	

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Category and Importer	Import Quantity (m3)					Percent of 2013 category	Percent of 2013 total	Change 2009-2013	Import Value (USD000)					Percent of 2013 category	Percent of 2013 total	Change 2009-2013	Implication	
	2009	2010	2011	2012	2013				2009	2010	2011	2012	2013				2009	2010
Sawnwood (C)	6,402	8,209	7,692	6,874	23,717	100.0%	2.1%	270%	2,577	3,119	3,004	21,052	3,925	100.0%	1.5%	52%	403	3
China	3,969	6,467	5,775	6,425	19,593	82.6%	1.7%		1,925	2,709	2,559	20,944	3,143	80.1%	1.2%		485	4
France			4			0.0%	0.0%				40			0.0%	0.0%			
Germany	179	60				0.0%	0.0%		87	25				0.0%	0.0%		486	4
Iran (Islamic Republic of)		50				0.0%	0.0%			21				0.0%	0.0%			
Israel		22				0.0%	0.0%			9				0.0%	0.0%			
Malaysia				47		0.0%	0.0%					29		0.0%	0.0%			
Mauritius	14	42			138	0.6%	0.0%		8	21			76	1.9%	0.0%		571	5
Norway					10	0.0%	0.0%						2	0.1%	0.0%			
Oman					230	1.0%	0.0%						151	3.8%	0.1%			
Portugal		128				0.0%	0.0%			54				0.0%	0.0%			
Samoa		53				0.0%	0.0%			26				0.0%	0.0%			
South Africa	1,584	257	332	49		0.0%	0.0%		276	45	58	9		0.0%	0.0%		174	1
Switzerland	358		900			0.0%	0.0%		174		229			0.0%	0.0%		486	
Thailand	174	50		91	1,599	6.7%	0.1%		85	21		20	154	3.9%	0.1%		489	4
Tanzania		6	20	98	126	0.5%	0.0%			1	3	21	47	1.2%	0.0%			
Viet Nam		562	362	164	1,964	8.3%	0.2%			98	63	29	342	8.7%	0.1%			
Zimbabwe	124	512	299		57	0.2%	0.0%		22	89	52		10	0.3%	0.0%		177	1
Sawnwood (NC)	33,425	118,870	177,744	166,471	222,470	100.0%	19.3%		29,853	42,155	62,786	63,662	78,202	100.0%	29.3%		893	3
Albania				19		0.0%	0.0%					23		0.0%	0.0%			
Austria	14		12	9		0.0%	0.0%		17		17	16		0.0%	0.0%		1,214	
Belgium	56					0.0%	0.0%		81					0.0%	0.0%		1,446	
Bulgaria				23		0.0%	0.0%					15		0.0%	0.0%			
Cambodia		1,001	134	557		0.0%	0.0%			279	51	161		0.0%	0.0%			
Canada		55				0.0%	0.0%			60				0.0%	0.0%			1,0
Chile		3			494	0.2%	0.0%			3			227	0.3%	0.1%			1,0
China	13,122	100,459	160,368	158,827	214,412	96.4%	18.6%		16,232	32,645	54,480	59,834	72,696	93.0%	27.3%		1,237	3
Croatia	111					0.0%	0.0%		91					0.0%	0.0%		820	
Czech Republic	55	19	38	59	36	0.0%	0.0%		79	27	42	62	52	0.1%	0.0%		1,436	1,4
Denmark		10				0.0%	0.0%			8				0.0%	0.0%			8
Egypt		21		20		0.0%	0.0%			28		28		0.0%	0.0%			1,3
France	1,038	1,334	1,675		129	0.1%	0.0%		1,281	1,355	1,584		511	0.7%	0.2%		1,234	1,0
Germany	1,381	389	86	74	35	0.0%	0.0%		3,304	698	344	444	178	0.2%	0.1%		2,392	1,7
Greece	175	42				0.0%	0.0%		227	50				0.0%	0.0%		1,297	1,1
India	22	73	981	100	464	0.2%	0.0%		30	84	958	96	401	0.5%	0.2%		1,364	1,1
Israel	6	51				0.0%	0.0%		7	50				0.0%	0.0%		1,167	9
Italy	20	51	34	36	34	0.0%	0.0%		30	46	16	18	14	0.0%	0.0%		1,500	9
Japan	1,992	796	539	17	337	0.2%	0.0%		2,431	760	524	7	321	0.4%	0.1%		1,220	9
Lebanon					18	0.0%	0.0%						11	0.0%	0.0%			
Lithuania	18		37			0.0%	0.0%		23		51			0.0%	0.0%		1,278	
Madagascar	20	20				0.0%	0.0%		18	15				0.0%	0.0%		900	7
Malawi	91	2	62		20	0.0%	0.0%		8	3	26		8	0.0%	0.0%		88	1,5
Malaysia	18	36	341	7	19	0.0%	0.0%		15	42	434	8	18	0.0%	0.0%		833	1,1
Mauritius	168	558	453		254	0.1%	0.0%		252	728	449		329	0.4%	0.1%		1,500	1,3
Mongolia				36		0.0%	0.0%					4		0.0%	0.0%			
Morocco	16					0.0%	0.0%		20					0.0%	0.0%		1,250	
Netherlands			31	729		0.0%	0.0%				9	222		0.0%	0.0%			
Pakistan	23	16	104		17	0.0%	0.0%		24	21	75		24	0.0%	0.0%		1,043	1,3
Panama	295					0.0%	0.0%		352					0.0%	0.0%		1,193	
Poland	20	54	36		31	0.0%	0.0%		19	54	37		14	0.0%	0.0%		950	1,0
Portugal	158	145	140	22	30	0.0%	0.0%		124	108	23	9	15	0.0%	0.0%		785	7
Republic of Korea			44			0.0%	0.0%				54			0.0%	0.0%			
Romania	36	36				0.0%	0.0%		64	61				0.0%	0.0%		1,778	1,6
Russian Federation			203			0.0%	0.0%				161			0.0%	0.0%			
Singapore	1,018	1,841	21	378	3,343	1.5%	0.3%		834	1,557	27	80	1,574	2.0%	0.6%		819	8

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Category and Importer	Import Quantity (m3)					Percent of 2013 category	Percent of 2013 total	Change 2009-2013	Import Value (USD000)					Percent of 2013 category	Percent of 2013 total	Change 2009-2013	Implic	
	2009	2010	2011	2012	2013				2009	2010	2011	2012	2013				2009	2010
South Africa	3,090	2,089	1,078	660	664	0.3%	0.1%		943	637	329	201	202	0.3%	0.1%		305	3
Spain	38	39				0.0%	0.0%		54	59				0.0%	0.0%		1,421	1,5
Sweden	100					0.0%	0.0%		104					0.0%	0.0%		1,040	
Switzerland	495	143				0.0%	0.0%		448	119				0.0%	0.0%		905	8
Thailand	881	616	709	156	904	0.4%	0.1%		1,095	597	717	26	994	1.3%	0.4%		1,243	9
Turkey		216				0.0%	0.0%			76				0.0%	0.0%			3
Ukraine				6		0.0%	0.0%					6		0.0%	0.0%			
Tanzania	8,185	8,449	9,483	4,539	150	0.1%	0.0%		1,366	1,774	1,728	2,321	262	0.3%	0.1%		167	2
USA	44	59	58		104	0.0%	0.0%		54	62	67		107	0.1%	0.0%		1,227	1,0
Viet Nam	7	84	820	117	627	0.3%	0.1%		9	99	504	57	138	0.2%	0.1%		1,286	1,1
Zimbabwe	712	163	257	80	348	0.2%	0.0%		217	50	79	24	106	0.1%	0.0%		305	3
Chips and Particles			391	17	50,409	100.0%	4.4%	NA			121	18	9,099	100.0%	3.4%	NA		
China			371			0.0%	0.0%				106			0.0%	0.0%			
Indonesia				17		0.0%	0.0%					18		0.0%	0.0%			
Japan					50,409	100.0%	4.4%						9,099	100.0%	3.4%			
Mauritius			20			0.0%	0.0%				15			0.0%	0.0%			
Particle Board	115	4	277	34	28	100.0%	0.0%	-76%	125	22	27	21	9	100.0%	0.0%	-93%	1,087	5,5
China			266			0.0%	0.0%				16			0.0%	0.0%			
France				34		0.0%	0.0%					21		0.0%	0.0%			
India			1			0.0%	0.0%				9			0.0%	0.0%			
Malawi	11		10			0.0%	0.0%		9		2			0.0%	0.0%		818	
Singapore	104					0.0%	0.0%		116					0.0%	0.0%		1,115	
South Africa		2				0.0%	0.0%			18				0.0%	0.0%			9,0
Zimbabwe		2			28	100.0%	0.0%			4			9	100.0%	0.0%			2,0
Plywood	1	25	6	4	4	100.0%	0.0%	300%	1	34	6	1	1	100.0%	0.0%	0%	1,000	1,3
South Africa	1					0.0%	0.0%		1					0.0%	0.0%		1,000	
Zimbabwe		25	6	4	4	100.0%	0.0%			34	6	1	1	100.0%	0.0%			1,3
Veneer Sheets	53	160	517	46	491	100.0%	0.0%	826%	88	286	538	102	269	100.0%	0.1%	206%	1,660	1,7
Canada		6	3			0.0%	0.0%			5	2			0.0%	0.0%		8	
China	12	8				0.0%	0.0%		5	28				0.0%	0.0%		417	3,5
France			20			0.0%	0.0%				131			0.0%	0.0%			
Mauritius			60			0.0%	0.0%				67			0.0%	0.0%			
South Africa	18	109	214	46	183	37.3%	0.0%		28	220	279	102	144	53.5%	0.1%		1,556	2,0
Switzerland	10					0.0%	0.0%		45					0.0%	0.0%		4,500	
Thailand					294	59.9%	0.0%						121	45.0%	0.0%			
USA	12	27				0.0%	0.0%		9	21				0.0%	0.0%		750	7
Zimbabwe	1	10	220		14	2.9%	0.0%		1	12	59		4	1.5%	0.0%		1,000	
Newsprint	118	28	814			NA	0.0%	-100%	85	21	514			NA	0.0%	-100%	720	7
India			814			NA	0.0%				514			NA	0.0%			
Malawi	118					NA	0.0%		85					NA	0.0%		720	
Zimbabwe		28				NA	0.0%			21				NA	0.0%			7
Total	49,070	460,911	551,916	947,131	1,150,144		4%	2244%	34,758	148,070	171,263	265,380	266,749		4%	667%	708	3
Total Industrial Roundwood	8,956	333,615	364,475	773,685	853,025		74.2%	9425%	2,029	102,433	104,267	180,524	175,244		65.7%	8537%	227	3
Total Sawnwood	39,827	127,079	185,436	173,345	246,187		21.4%	518%	32,430	45,274	65,790	84,714	82,127		30.8%	153%	814	3
Total Wood-based Panels (1)	169	189	1,191	101	50,932		4.4%	30037%	214	342	692	142	9,378		3.5%	4282%	1,266	1,8
Total other (newsprint)	118	28	814	0	0		-95.6%	-100%	85	21	514	0	0		-96.5%	-100%	720	7

C = Coniferous

NC = Non-coniferous

WIR = Wood in the rough

(1) Chips and particles, particle board, plywood, veneer sheets

Source: FAO

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Annex 14: Mozambique Trade of Wood Products, 2013

HS Code	Commodity	Export Value (USD)	Import Value (USD)	Trade Balance (USD)	Percent of HS44	
					Exports	Imports
44	Wood and articles of wood; wood charcoal	202,667,900	164,550,120	38,117,780	100.0%	100.0%
4401	Fuel wood, in logs, in billets, in twigs, in faggots or in similar forms; wood in chips or particles; sawdust and wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms.		361,080	-361,080	0.0%	0.2%
4402	Wood charcoal (including shell or nut charcoal), whether or not agglomerated.	37,938	49,800	-11,862	0.0%	0.0%
4403	Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared.	25,798,190	19,203,480	6,594,710	12.7%	11.7%
4404	Hoopwood; split poles; piles, pickets and stakes of wood, pointed but not sawn lengthwise; wooden sticks, roughly trimmed but not turned, bent or otherwise worked, suitable for the manufacture of walking-sticks, umbrellas, tool handles or the like; chipwo		893,820	-893,820	0.0%	0.5%
4405	Wood wool; wood flour.		43,380	-43,380	0.0%	0.0%
4406	Railway or tramway sleepers (cross-ties) of wood.	813,012	11,580	801,432	0.4%	0.0%
4407	Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness exceeding 6 mm.	60,030,124	13,383,600	46,646,524	29.6%	8.1%
4408	Sheets for veneering (including those obtained by slicing laminated wood), for plywood or for similar laminated wood and other wood, sawn lengthwise, sliced or peeled, whether or not planed, sanded, spliced or end-jointed, of a thickness not exceeding 6 m	355,288	646,840	-291,552	0.2%	0.4%
4409	Wood (including strips and friezes for parquet flooring, not assembled) continuously shaped (tongued, grooved, rebated, chamfered, V-jointed, beaded, moulded, rounded or the like) along any of its edges, ends or faces, whether or not planed, sanded or end	7,988,274	1,857,900	6,130,374	3.9%	1.1%
4410	Particle board, oriented strand board (OSB) and similar board (for example, waferboard) of wood or other ligneous materials, whether or not agglomerated with resins or other organic binding substances.	18,338	5,999,160	-5,980,822	0.0%	3.6%
4411	Fibreboard of wood or other ligneous materials, whether or not bonded with resins or other organic substances.	111,762	5,676,380	-5,564,618	0.1%	3.4%
4412	Plywood, veneered panels and similar laminated wood.		9,135,460	-9,135,460	0.0%	5.6%
4413	Densified wood, in blocks, plates, strips or profile shapes.	227,336	418,520	-191,184	0.1%	0.3%
4414	Wooden frames for paintings, photographs, mirrors or similar objects.		339,360	-339,360	0.0%	0.2%
4415	Packing cases, boxes, crates, drums and similar packings, of wood; cable-drums of wood; pallets, box pallets and other load boards, of wood; pallet collars of wood.	2,420,926	4,866,360	-2,445,434	1.2%	3.0%
4416	Casks, barrels, vats, tubs and other cooper's products and parts thereof, of wood, including staves.	2,500	2,120	380	0.0%	0.0%
4417	Tools, tool bodies, tool handles, broom or brush bodies and handles, of wood; boot or shoe lasts and trees, of wood.		159,740	-159,740	0.0%	0.1%
4418	Builders' joinery and carpentry of wood, including cellular wood panels, assembled flooring panels, shingles and shakes.	61,654	16,297,000	-16,235,346	0.0%	9.9%
4419	Tableware and kitchenware, of wood.		182,140	-182,140	0.0%	0.1%
4420	Wood marquetry and inlaid wood; caskets and cases for jewellery or cutlery, and similar articles, of wood; statuettes and other ornaments, of wood; wooden articles of furniture not falling in Chapter 94.	17,046	719,040	-701,994	0.0%	0.4%
4421	Other articles of wood.	1,230,136	1,999,460	-769,324	0.6%	1.2%
47	Pulp of wood or of other fibrous cellulosic material; recovered (waste and scrap) of paper or paperboard	35,248	2,502,400	-2,467,152	NA	NA
8465	Machine-tools (including machines for nailing, stapling, glueing or otherwise assembling) for working wood, cork, bone, hard rubber, hard plastics or similar hard materials.	191,246	8,657,440	-8,466,194	NA	NA
441820	Doors & their frames & thresholds, of wood, incl. cellular wood panels		8,534,980	-8,534,980	NA	NA
940161	Seats (excl. of 9401.10-9401.50), with wooden frames, upholstered	6,360	9,399,100	-9,392,740	NA	NA
940169	Seats (excl. of 9401.10-9401.50), with wooden frames, other than upholstered		1,969,180	-1,969,180	NA	NA
940330	Wooden furniture of a kind used in offices	5,340	14,367,140	-14,361,800	NA	NA
940340	Wooden furniture of a kind used in the kitchen	900	7,020,440	-7,019,540	NA	NA
940350	Wooden furniture of a kind used in the bedroom	6,764	15,365,180	-15,358,416	NA	NA
940360	Wooden furniture (excl. of 94.01 & 9403.30-9403.50)	559,486	27,894,660	-27,335,174	NA	NA
NA	Summary of wooden furniture and wood chairs	578,850	76,015,700	-75,436,850	NA	NA

Negative trade balance indicates net imports.

HS44 4-digit trade flow does not sum to total for HS44 2-digit trade flow (missing 48.9% of exports and 50.0% of imports); reason could not be identified.

- highest value within respective trade flow (export or import) for HS44
- 2nd highest value within respective trade flow (export or import) for HS44
- 3rd highest value within respective trade flow (export or import) for HS44
- highest value within respective trade flow (export or import) for non-HS44 wood product
- 2nd highest value within respective trade flow (export or import) for non-HS44 wood product
- 3rd highest value within respective trade flow (export or import) for non-HS44 wood product

Source: UN Comtrade

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Annex 15: Sector Profile Summary: Construction

Key Factors	Profile
Relevance	<ul style="list-style-type: none"> • Contributes 3.7% to GDP • Grew on average 10% per year during 2005-2010, versus GDP growth of 7%
Production	<ul style="list-style-type: none"> • 3 subsectors for construction: civil construction, heavy construction, building materials • Building materials produced locally include bricks, cement, concrete, asphalt, paving blocks, building blocks, precast wall panels, palisade fencing, concrete floor tiles, roofing plates of fiber cement, paving stones, drainage channels, bridge parapets, metal structures • Cement annual production of 4 million tons (2013) • Production in north consists largely of concrete firms
Supply chain	<ul style="list-style-type: none"> • About 2,500 firms operating nationally; dominated by SMEs • Among licensed civil construction firms: 40% in Maputo city and province, 13% in Nampula, 12% in Sofala, and less than 8% each in the remaining provinces • 60% of inputs used by building materials producers and heavy construction companies are imported • Although local cement industry capacity exceeds domestic consumption, operational problems and production interruptions limit local cement supply, resulting in 20% imports
Employment	<ul style="list-style-type: none"> • Sector employs more than 20,942 people (2008)⁴ • Most laborers in the south: 49% in Maputo province, 25% in Maputo city; Manica, Sofala and Tete employ between 5% and 10% • Limited official data regarding sector participation; companies do not have to provide total employees to association or government statistics offices • Expected 10-year demand for new construction workers in the north is 30,000
Consumption	<ul style="list-style-type: none"> • Rapid growth in heavy construction works (railways, highways, airports, ports, dams, production plants, etc.) • Major projects in natural resources (gas, coal, heavy sands, offshore gas) require construction and building materials and housing of workers (for whom 10,000 homes are need)
Key challenges	<ul style="list-style-type: none"> • Low level of skills and education nationally (average 1.2 years of formal education⁵) create challenges for hiring or training qualified workers • Shortage of unskilled and skilled labor and capacity development regionally (north imports workers from south) • Majority of firms lack sufficient capital, technical staff, experience, certification, technology or supply chain linkages to bid on or participate directly in infrastructure, oil and gas or other large-scale projects • Low level of value addition for many materials encourages imports • High informal participation • Input shortages cause market failure, with demand satisfied by imports despite excess local capacity (e.g., cement) • High price of key inputs (e.g., cement, machinery equipment) • Few donor support or development financing programs specific to sector • Low level of female participation (3% of sector employment⁶) limits labor pool

⁴ Ficheiro das Unidades Estatísticas (FUE) (Statistics Data Base)

⁵ Mozambique, African Economic Outlook 2012, www.africaneconomicoutlook.org, AfDB, OECD, UNDP, UNECA

⁶ ILO, Key Indicators of the Labour Market Database (2003 data), as cited in Mozambique Labour Market Profile 2014, Danish Trade Union Council for International Development Corporation.

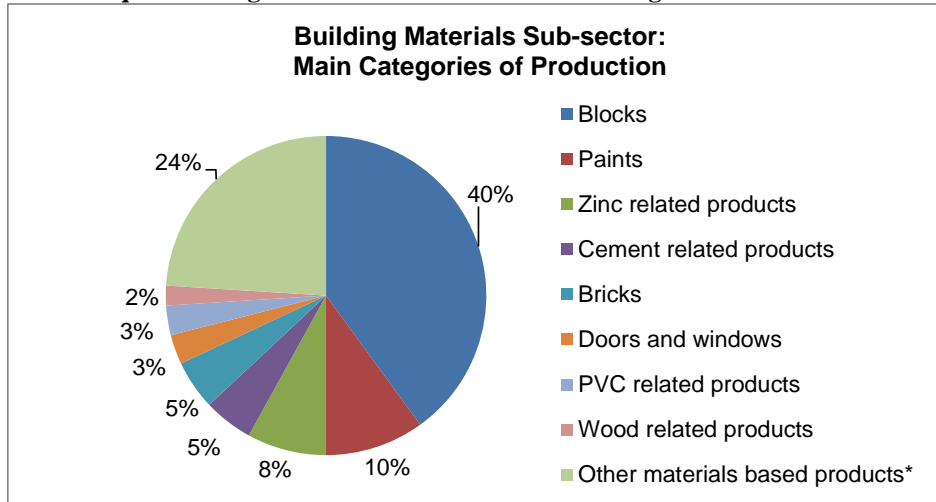
Source: Compiled by Global Development Solutions, LLC

Annex 16: Background on Mozambique Construction Sector

Some information contained in the annex repeats or provides more detail regarding data in the main body of the report.

Building materials production. The figure below provides an indication of the distribution companies by type of materials produced. Roughly 40% of local building materials production is for various types of building blocks (e.g., concrete). Roughly 5% produce bricks. Another 10% of the firms produce paints, mainly using imported intermediate inputs, and 8% produce products made of zinc, such as tin roofs. The remainder produce a wide range of materials based on metal, glass, steel and marble. Finally 5% of firms produce cement, while a smaller proportion produce PVC and wood based products.

Mozambique Building Materials Sub-sector: Main Categories of Production

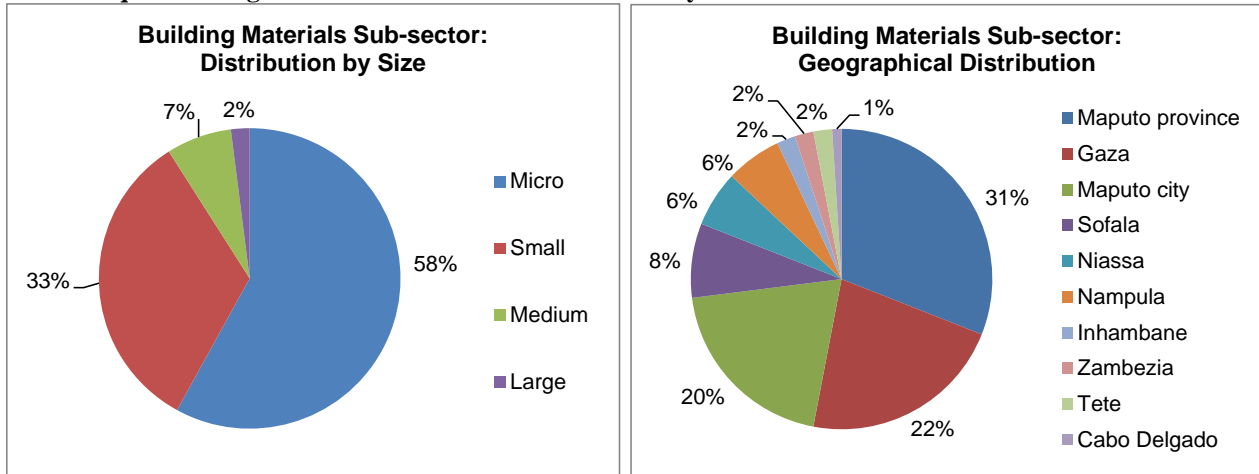


* iron, steel, stones, parquet, metal, steel, glass, marble, ceramics

Calculations based on Ministry of Public Works (MOPH) 2014 data, as cited in A Strategy and Policy Framework to Support the Development of the Construction and Building Materials Industries in Mozambique, IGC Mozambique and National Directorate of Construction Materials, Ministry of Public Works and Housing, Feb 2015

Building materials firm size is skewed toward micro and small enterprises (see figure below), with 58% of the firms registering zero fulltime employees and 33% with having 1-10 full-time employees. Medium-size and large firms account for less than 10% of total firms. The proportion of MSMEs operating in the sector can be presumed to be even higher, since informal firms also tend to be small. Most building materials firms are concentrated in the south, primarily Maputo province (31%), Maputo city (20%) and Gaza (22%). The center and north account for less than one third of total formal firms. The lack of transport and communications infrastructure is a discouraging factor for enterprise development outside of the capital area.

Mozambique Building Materials Sub-sector: Distribution by Size and Province



Per Mozambique labor law, company size is defined by number of employees. Micro = 0 employees, Small = 1 – 10 people, Medium-size = 11 – 100 people, Large = more than 100 people. Calculations based on Ministry of Public Works (MOPH) 2014 data, as cited in *A Strategy and Policy Framework to Support the Development of the Construction and Building Materials Industries in Mozambique*, IGC Mozambique and National Directorate of Construction Materials, Ministry of Public Works and Housing, Feb 2015

Of the 110 identified concrete block producers in Mozambique, the majority are in Maputo province and Maputo city (together, over 70%), and company size skews toward micro (87% of companies) and small (10% of companies). For brick producers, 16 companies were identified, with the majority in Gaza (44%) followed by Maputo province (13%). As with block producers, the brick producers are predominantly micro size. Cement producers are noticeably larger (44% are large companies and 33% are medium-size) and are concentrated in Maputo province (56%). Steel producers are larger still, with 71% considered large, and also focused on Maputo province. Information regarding finished steel products was not available.

Size and Geographic Distribution of Mozambique Producers of Concrete Blocks, Bricks, Cement and Steel

Product	Province	Size					Total	Percent total
		Micro	Small	Medium	Large	Unknown		
Block	Cabo Delgado	2					2	1.8%
	Gaza	20					20	18.2%
	Inhambane	1					1	0.9%
	Maputo	57	4			3	64	58.2%
	Maputo city	12	2				14	12.7%
	Nampula		1				1	0.9%
	Niassa	2					2	1.8%
	Sofala		1				1	0.9%
	Tete			3			3	2.7%
	Zambézia	2					2	1.8%
	Total		96	11	0	0	3	110
Percent total		87.3%	10.0%	0.0%	0.0%	2.7%	100.0%	

Brick	Cabo Delgado	1					1	6.3%	
	Gaza	7					7	43.8%	
	Manica	1					1	6.3%	
	Maputo	1	1				2	12.5%	
	Maputo city		1				1	6.3%	
	Niassa	3					3	18.8%	
	Sofala	1					1	6.3%	
	Total		14	2	0	0	0	16	100.0%
	Percent total		87.5%	12.5%	0.0%	0.0%	0.0%	100.0%	

Cement	Maputo		1	2	2		5	55.6%
	Nampula		1		1		2	22.2%
	Sofala			1	1		2	22.2%
	Total	0	2	3	4		9	100.0%
	Percent total	0.0%	22.2%	33.3%	44.4%	0.0%	100.0%	

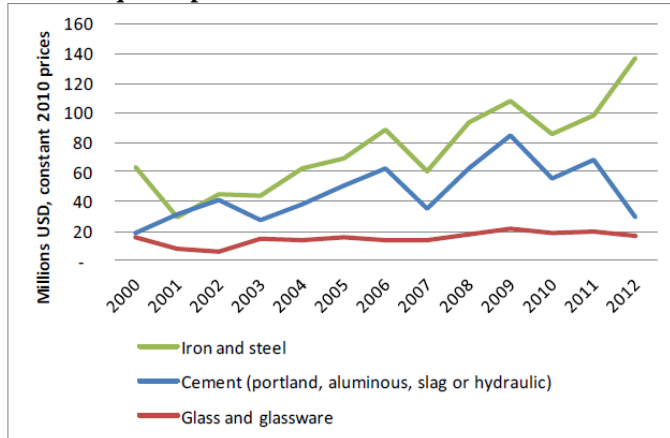
Steel	Maputo city				1		1	14.3%
	Maputo			1	3		4	57.1%
	Nampula				1		1	14.3%
	Sofala		1				1	14.3%
	Total	0	1	1	5		7	100.0%
	Percent total	0.0%	14.3%	14.3%	71.4%	0.0%	100.0%	

Per Mozambique labor law, company size is defined by number of employees. Micro = 0 employees, Small = 1 – 10 people, Medium-size = 11 – 100 people, Large = more than 100 people.

Source: National statistics (GDS local consultant)

Building materials imports. Contractors often rely on imports to fill gaps in local supply of building materials. For example, despite excess capacity in the industry, only 80% of local cement needs can be fulfilled locally, with imports comprising the other 20%.⁷

Mozambique Imports of Construction Materials



Source: UN Comtrade as cited in *A Strategy and Policy Framework to Support the Development of the Construction and Building Materials Industries in Mozambique*, IGC Mozambique and National Directorate of Construction Materials, Ministry of Public Works and Housing, Feb 2015

About 60% of the inputs used by producers of building materials and by heavy construction companies are imported.⁸ A survey of 30 building materials companies and contractors conducted in 2012 revealed that about 35% of companies sourcing from abroad do so because they believe that the materials are not available locally, while 45% do so because prices of imported materials are below those in the domestic market. Among the reasons cited by contractors for using foreign suppliers were: domestic suppliers fail to deliver on time (10%) and provide low-quality materials (10%).⁹ For better control of quality, supply chain and timing, most large construction companies produce their own supplies.¹⁰

Delays in reimbursement of VAT (which is charged at a uniform rate of 17% in all the relevant sectors, including in construction and building materials) reportedly lead to problems with cash flow, which can be particularly problematic for SMEs in the sector.¹¹

Cement industry. Over the long term, growth in African cement production has outpaced that of other world regions, second only to Asia; both regions are experiencing high population growth and high natural resource exploitation.

⁷ John Sutton, *An Enterprise Map of Mozambique*, International Growth Centre, 2014

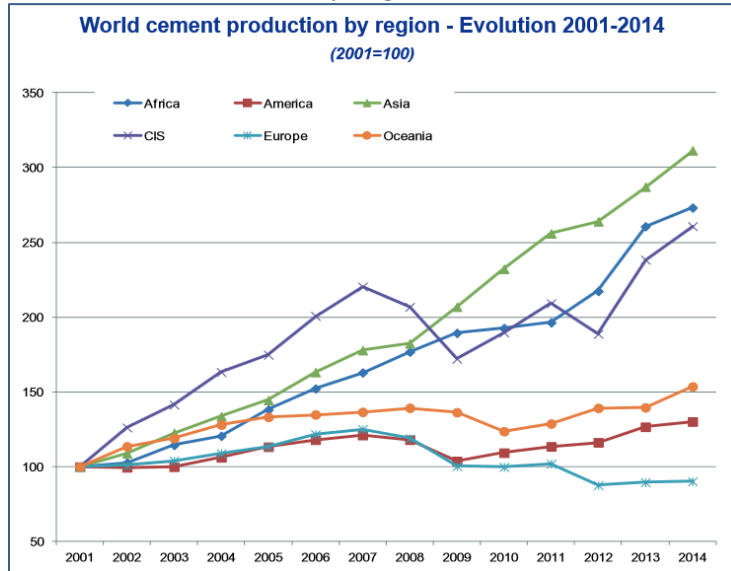
⁸ ANNEM (2000) as cited in John Sutton, *An Enterprise Map of Mozambique*, International Growth Centre, 2014

⁹ Nhabinde, V., C. P. Marrengula and A. Ubisse, *The challenges and the way forward for the construction industry in Mozambique*. Working Paper, International Growth Centre, 2012, as cited in John Sutton, *An Enterprise Map of Mozambique*, International Growth Centre, 2014

¹⁰ John Sutton, *An Enterprise Map of Mozambique*, International Growth Centre, 2014

¹¹ ANEMM (2000) as cited in John Sutton, *An Enterprise Map of Mozambique*, International Growth Centre, 2014.

World Cement Production by Region, 2001-2014



Source: The European Cement Association (CEMBUREAU)

Cement is the main basic product of the construction industry in Mozambique. Cement is sourced from domestic producers and importers, but the share of imports is declining as local production capacity expands. Five new cement plants scheduled to come on line in 2014 were expected to reduce the level of imports still further.¹² Nine new cement factories are planned or under construction to be operational in 2015, including production by 3 Chinese companies planning to operate in Magrude, Salamanga (south of Maputo) and Boane Industrial Park (Maputo). A fourth Chinese firm reportedly is planning a new cement factory at Cheringoma district, Sofala. The South African cement firm Pretoria Portland Cement also has plans for an investment in Mozambique (location unknown).^{13,14}

However, ability to meet local demand is not only a capacity issue. Total capacity of the cement industry is already in excess of domestic consumption, but operational problems and production interruptions limit supply.¹⁵ Mozambique has abundant deposits of limestone, but the logistical challenges of mining much of the deposits have limited the supply of clinker available to domestic cement makers. Over 3 million tons of clinker were imported during 2005-2012.^{16,17}

¹² John Sutton, An Enterprise Map of Mozambique, International Growth Centre, 2014

¹³ John Sutton, An Enterprise Map of Mozambique, International Growth Centre, 2014

¹⁴ Portland cement is a typical ingredient of concrete, and the most widely used type of cement. It was invented in the early 19th century and named after the fine building stones it resembled that were quarried in Portland, England. The innovation of Portland cement marked a milestone in the construction history, as it created a far stronger bond than the plain crushed limestone of the day. Today it remains the best performing and most economical binder used in concrete. Source: Sustainability and Precast Concrete, http://www.precast.org/docs/sustainability_and_precast_concrete.pdf

¹⁵ ANEMM (2000) as cited in John Sutton, An Enterprise Map of Mozambique, International Growth Centre, 2014.

¹⁶ Mozambique: the rough diamond of south-eastern Africa. CemWeek, June/July 2013. as cited in John Sutton, An Enterprise Map of Mozambique, International Growth Centre, 2014.

Where available, each cement factory sources limestone from its own local area. Cement is bagged at the plant and transported by truck or, to a lesser extent, by rail. Transport costs are high and the logistics of transport are difficult. An interruption to production at a single factory can lead to major shortages and price rises in a local area.

The expected construction demand will spur demand for cement-based building materials. Cement and concrete have a multitude of applications, including concrete light poles, drainage pipes, roofing tiles, flooring, precast concrete walls and articulated concrete blocks, which in combinations with geotextiles, are used as revetment systems for erosion prevention.^{18,19}

There is the possibility for the local construction sector to meet the demand for affordable and/or fast housing with products such as prefabricated concrete load-and non-load-bearing walls, in which the infrastructure of the house can be build off-site and then assembled quickly at the construction site.²⁰ Advantages of precast walls are reduced time and cost for the construction project, since the walls are formed offsite in a specialized production facility. An entire housing infrastructure can be cast in a few days and then hauled to the jobsite. Once delivered to a building site, the walls can be assembled into a home in less than a day. The construction is extremely sturdy and, when treated, will be impervious to moisture penetration. The sandwich construction technique used with the precast concrete walls also provides increased stability and improved sound insulation, as well as greater protection from potential hazards such as fires. Precast concrete panels also provide energy-saving advantages. Because the concrete wall panels are separated by a layer of thermal insulation, the precast concrete wall panel system results in enhanced energy performance. In addition, the possibility of numerous finishes, textures, shapes and colors offer an abundance of creative options to meet virtually any design requirement. Some global manufacturers have taken it further and are using recycled materials in the aggregate to form “green” (as in environmentally friendly) structures. At least one firm (Ollava in Sofala) indicates production of precast wall panels, though specifications are unknown. Such products represent value added over more basic pre-cast concrete forms produced by many in the industry. However, the production of slabs requires a sound level of engineering and likely a larger production facility than held currently by the SMEs dominating the sector, and thus both requiring capacity and skills development and capital investment by private and/or public sectors. Until cost savings can be achieved, precast materials maybe better suited for middle-income rather than low-income housing for the poor or lower middle-class.

¹⁷ Cement is produced in 3 stages: from raw material to clinker to cement. Cement Manufacturing Process, The European Cement Association (CEMBUREAU), <http://www.cembureau.eu/about-cement/cement-manufacturing-process>.

¹⁸ United States Department of Labor, https://www.osha.gov/pls/imis/sic_manual.display?id=672&tab=description

¹⁹ Technical Supplement 14L, Use of Articulating Concrete Block Revetment Systems for Stream Restoration and Stabilization Projects, Part 654 National Engineering Handbook, August 2007
<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17822.wba>

²⁰ See specifications in Prefabrication for Affordable Housing: State-of-the-art Report, Fédération internationale du béton (fib), 1 Jan 2011, https://books.google.com/books?id=3Dlhwx9jevqC&dq=prefabricated%20concrete%20loadbearing%20walls%20affordable%20housing&source=gbs_similarbooks and a video demonstration in Lightweight Insulated Concrete Panels, <https://www.youtube.com/watch?v=KN8mvhzX9No&spfreload=10>.

The growth of the manufacturing industry of cement-based building materials, such as the concrete blocks, slabs, curbs, etc., is stimulating growth of the freight transport sector. It is common to see, throughout the country, trucks (for rent) for the transportation of construction materials. They are private trucks that employ primarily young people.

Steel. Mozambique used 397,000 MT of finished steel products in 2014, an increase of 112% from 2010 (see table below). Detail on the nature of steel products and application to construction was not available. A handful of companies are involved in production of steel products (e.g., rods, sheets) and steel structures for the construction industry. Steel raw material is imported, primarily from South Africa.

Mozambique Steel Use (000 MT)

Year	Crude steel equivalent	Finished steel products
2006	147	136
2007	188	174
2008	159	148
2009	182	170
2010	200	187
2011	208	194
2012	289	269
2013	384	358
2014	426	397
Change 2006-2014	190%	192%
Change 2010-2014	113%	112%

Source: Steel Statistical Yearbook 2015, Knoema.com, 2014 data per World Steel Association

In March 2015, the International Finance Corporation (IFC) announced plans to invest in a steel mill in northern Mozambique. MM Integrated Steel Mills Mozambique (MMI Steel) will be in a Special Economic Zone in Nacala. The parent company is the Motisun Group (Tanzania). The project will produce galvanized roofing sheets and other products used in low-cost housing. The plant will create about 250 jobs. Total investment in the Nacala facility is around USD39 million dollars, including up to USD20 million from IFC.²¹

Aluminum. Mozambique is the 2nd largest producers of aluminum in Africa, after South Africa. Production of primary aluminum²² totaled 567,000 MT in 2014, which represented 1.1% of global production. Production volume was nearly flat (up 2%) since 2010. In contrast, South Africa production fell 8% from 2010 to 2014 (see table below).

²¹ Mozambique: IFC Invests in Mozambique Steel Industry, AllAfrica, 19 March 2015, <http://allafrica.com/stories/201503200166.html>

²² Primary aluminum is defined as “The weight of liquid aluminum as tapped from pots, excluding the weight of any alloying materials as well as that of any metal produced from either returned scrap or remelted material.” International reporting practices vary from country to country, some nations conforming to the foregoing definition and others using different definitions. For those countries for which a different definition is given specifically in the source publication, the definition is provided in a footnote. Includes data available through August 17, 2015.

Mozambique Primary Aluminum Production (000 MT)

Year	Mozambique	South Africa
2000	54	673
2001	266	662
2001	273	676
2003	409	738
2004	549	866
2005	555	846
2006	564	895
2007	564	899
2008	536	811
2009	545	809
2010	557	807
2011	562	809
2012	564	665
2013	570	824
2014	567	745
Change 2006-2014	1%	-17%
Change 2010-2014	2%	-8%

Source: Mineral Resources, 2013, Aluminum, Primary: World Production, Knoema.com, 2013 data per U.S. Geological Survey.

Mozal is the dominant producer of aluminum and accounts for 60% of Mozambique’s commodity exports.²³ Its aluminum smelter uses alumina imported from western Australia as raw material. The foundry construction was supported in part by a USD120 million investment by the International Finance Corporation (IFC). The majority of Mozambique aluminum is exported rather than produced into value added products including construction materials. In December 2014, Midal Cables International, owned by Midal of Bahrein, one of the world’s largest manufacturers of aluminum cables, began producing rods and other aluminum items, using the aluminum ingots produced at the Mozal smelter at Beluluane (outskirts of Maputo) as its raw material.²⁴ Rods are exported to South Africa, Namibia, Zimbabwe, Tanzania, Kenya and Nigeria. Given lack of local expertise, most of the Mozambican staff were trained in Bahrain. The rod production represented the first time that Mozal aluminum was used inside Mozambique.²⁵ Mozal expects to supply 50,000 MT of aluminum ingots per year to Midal. Mozambique import value of aluminum doors, windows, frames and thresholds reached USD6.3 million in 2014, and increase of 314% from 2010. Such increase corresponds with rising housing construction and limited local production of aluminum housing materials.

²³ A Strategy and Policy Framework to Support the Development of the Construction and Building Materials Industries in Mozambique, IGC Mozambique and National Directorate of Construction Materials, Ministry of Public Works and Housing, Feb 2015.

²⁴ Mozambique: Mozal Aluminum to Be Used in Mozambican Industry, AllAfrica, 2013, <http://allafrica.com/stories/201302160027.html>

²⁵ Mozambique: Nyusi Inaugurates Aluminum Factory, AllAfrica, 3 June 2015, <http://allafrica.com/stories/201506040121.html>

Mozambique Imports of Aluminum Doors, Windows, Frames and Thresholds

Year	Value (USD)	Import weight (kg)	Unit value (USD/kg)
2000	\$1,075,717	184,930	\$5.82
2001	\$470,748	78,273	\$6.01
2002	\$1,001,734	160,528	\$6.24
2003	\$71,894	14,486	\$4.96
2004	\$675,505	78,995	\$8.55
2005	\$389,586	52,219	\$7.46
2006	\$818,972	109,772	\$7.46
2007	\$308,597	34,521	\$8.94
2008	\$502,227	50,117	\$10.02
2009	\$1,033,023	109,894	\$9.40
2010	\$2,042,094	218,897	\$9.33
2011	\$2,344,000	495,837	\$4.73
2012	\$3,655,030	53,187	\$68.72
2013	\$4,271,970	1,205,738	\$3.54
2014	\$6,302,800	1,404,290	\$4.49
Change 2010-2014	314%	997%	-62%

Source: UN Data for 2014 per Factfish.com.

Housing construction. Nationally, rural-urban migration and an emerging urban middle class are spurring local demand for housing, construction services and materials. According to the state-owned Fund for Housing Promotion (FFH), there is a housing deficit of 2 million units.²⁶ The housing deficit is partly attributed to the high growth rate in the country's population, which swelled from 20 million in 2007 to 25 million in 2014, as well as to rising disposable incomes which increase capacity to buy homes. Population growth has been particularly high in the 19-29 year age group, a segment with many first-time home buyers.²⁷ Over 4,500 new housing units are expected to enter the market in central Maputo over the next 5 years, versus projected demand of 23,000 units in the same area.²⁸ The construction is aimed at higher-end and there may be periods of oversupply or supply-demand mismatch, due to target price points and factors such as delayed development in oil and gas activities.

New home development has focused primarily on the mid- and high-end real estate markets versus affordable housing. One project, Casa Jovem at Costa do Sol in Maputo, focuses on the affordable market, and built 100 units with prices ranging from USD47,000 to USD130,000.²⁹ Reportedly, Real Estate Consulting (REC) plans a large affordable housing project Cabo Delgado. Still, affordable housing remains a relatively untapped market.

²⁶ Mozambique housing deficit hits 2 million units, Club of Mozambique, 27 May 2014, <http://www.clubofmozambique.com/solutions1/sectionnews.php?secao=mozambique&id=32619&tipo=one>

²⁷ Mozambique housing deficit hits 2 million units, Club of Mozambique, 27 May 2014, <http://www.clubofmozambique.com/solutions1/sectionnews.php?secao=mozambique&id=32619&tipo=one>

²⁸ Area defined as: Beixa, Museu, Polana, Sommerschild I, Sommerschild II and Marginal neighborhoods. Mozambique housing deficit hits 2 million units, Club of Mozambique, 27 May 2014,

<http://www.clubofmozambique.com/solutions1/sectionnews.php?secao=mozambique&id=32619&tipo=one>

²⁹ Mozambique housing deficit hits 2 million units, Club of Mozambique, 27 May 2014, <http://www.clubofmozambique.com/solutions1/sectionnews.php?secao=mozambique&id=32619&tipo=one>

Besides Maputo, emerging economic centers such as Tete, Nampula and Pemba are quickly developing housing shortages. Real Estate Consulting (REC) estimates that demand in Nacala will grow to 4,475 units over the next 5 years, and to 6,500 units in Pemba. Such demand increases present opportunities to eager investors, some of whom are now partnering with the Fund for Housing Promotion (FFH).³⁰ FFH carries out social housing projects, for example, Chiuba Village, a 1,200-house estate project in Pemba (Cabo Delgado province) costing USD60 million (estimated 2014, thus USD50,000/home) and built through a public-private partnership with a company from United Arab Emirates.³¹ FFH reportedly plans to construct 100,000 homes nationally, to address the issue of affordable housing, particularly for the estimated 13.5 million people (2.5 million households) or 60% of the population that live in unfit housing, frequently informal (concrete block-by-block or traditional straw hut construction by individual owners) and lacking access to basic services and facilities such as piped water, roads, sanitation and electricity.³² “Affordable” housing is a relative term and USD50,000/unit still is too dear for much of the population. Reportedly Mozambique has the highest housing costs in Southern Africa, due to the high costs of construction materials (nationally, more than 30% higher than in South Africa, and higher in the north³³) and lack of access to financing, especially for low- and medium-income households.

There also are many informal contractors involved in building houses. Most private houses built on the outskirts of cities and in the expanding areas of cities and towns are made by informal contractors, with output of varying quality.

Heavy construction and linkages to housing construction. Besides local housing, construction sector demand also comes from heavy construction works (railways, highways, airports, ports, dams, production plants, etc.) and major projects in natural resources (gas, coal, heavy sands); recent major offshore gas projects are expected to continue the trend with the need for both infrastructure and housing. Massive investments in the LNG sector in Cabo Delgado of up to \$54 billion will take place between 2016 and 2024. From 2016 onwards, with an expected peak in 2018, Anadarko and ENI plan to finance construction of up to 10,000 houses for workers and staff involved in the LNG plant erection. Non-official sources calculate that about 14,000 to 15,000 workers will be needed for the construction of housing in Palma, including 25% skilled, 57% semi-skilled and 18% unskilled labor. The estimates have not yet been officially confirmed by Government, the vocational training service sector or Anadarko/ENI. The expected new housing demand of 10,000 new homes likely cannot be provided by the north, however, due to several reasons:

- The training output of regional training facilities (trainees per year) is far below the requirement of the Palma LNG project (housing and infrastructure);

³⁰ Fundo de Formanto da Habitação

³¹ Mozambican housing fund plans to set up public-private partnerships, Macauhub.com, 27 June 2014

³² Over half of Mozambican population lives in unfit housing, Macauhub.com, 23 Feb 2011. Update on policy commitment not available.

³³ Mozambique - CEM - Construction sector - draft, World Bank, 2009, <http://siteresources.worldbank.org/INTDEBTDEPT/Resources/468980-1218567884549/5289593-1259608803444/MozambiqueCEMConstruction20090821.pdf>

- The current level of technical formation is basic, and upgraded training material is not available;
- Vocational education and practical training is not well-coordinated in the region;
- Neither Government (Direção Provincial de Trabalho, Emprego e Segurança Social) nor the vocation training service sector is fully aware of how many additional workers are needed as from 2015, and what technical standards need to be introduced to the curricula; and
- Particularly for large scale projects financed by multinationals, quality standards are high, and the global firms struggle to identify local suppliers in the north for their desired goods works and services.

Annex 17: Donor Support Programs

From 2000 to 2013, USD464,332 was granted as Official Development Assistance to the construction sector, across 10 programs. A list of donor support programs is provided in the table below.

Donor Support Programs for Construction Sector

	Project	Purpose	Donor	Organisation	Year	Amount (USD)	Type
1	<i>Not specified</i>	Construction policy and admin. mgmt	Italy	DGCS	2006	163,173	ODA Grants
2	<i>Not specified</i>	Construction policy and admin. mgmt	Netherlands	MFA	2001	112,843	ODA Grants
3	EXHIBITION: MODERN PORTUGUESE ARCHITECTURE IN MAPUTO / MODERN MOZAMBICAN ARCHITECTURE IN MAPUTO.	Construction policy and admin. mgmt	Portugal	IPAD	2005	48,471	ODA Grants
4	<i>Not specified</i>	Construction policy and admin. mgmt	Ireland	DFA	2006	42,513	ODA Grants
5	PROGRAMA DE APOIO AO SECTOR DE	Construction policy and admin. mgmt	Netherlands	MFA	2002	42,409	ODA Grants
6	PCI. Support for the creation of the UNESCO chair of basic habitability in the Eduardo Mondlane University of Mozambique: Faculty of Architecture and	Construction policy and admin. mgmt	Spain	MFA	2010	25,563	ODA Grants
7	HAUS ALGARVE - PROJEKTZENTRUM BUZI	Construction policy and admin. mgmt	Austria	BMeiA	2001	19,525	ODA Grants
8	MAP APOIO CONSTRUCAO PACE	Construction policy and admin. mgmt	Netherlands	MFA	2003	6,010	ODA Grants
9	Grants. University education at a post grade, doctoral and postdoctoral grade, with the objective of promoting the qualification of human capital.	Construction policy and admin. mgmt	Spain	AECID	2011	2,503	ODA Grants
10	PONTE SUL FIUME ZAMBESI - FORMULAZIONE INIZIATIVA - FONDO ESPERTI	Construction policy and admin. mgmt	Italy	DGCS	2005	1,323	ODA Grants

Source: Open Aid Data