



Papaya Policy Brief D

Policy for Equity in Tanzanian Agriculture 2002 - 2017

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Executive Summary

Data from a total of 400 households in Iringa and Morogoro districts during two waves of panel data (2002, 2008 and 2015) illustrates a rapidly changing rural landscape: average maize yields and sales have increased significantly in both districts; the use of tractors has increased considerably; the average area under paddy has increased slightly whilst paddy production almost doubled between 2002 and 2015. Married households use most improved/hybrid seed, enjoy double the paddy yields of farms managed by women, sell most maize and enjoy greater income and more assets. However, farms managed by women have outperformed married households in terms of increases in maize productivity 2002-2015, increasing yields by 98% compared to 43%.

District-level workshops in Kilombero, Kilolo and Mafinga during February 2017 highlight how gender equity is constrained by cultural beliefs about the position and roles of women in society, specifically that within agriculture women are seen as fragile and not suitable for certain agricultural tasks. Key challenges to integrating gender and generation more systematically within service delivery included the unpredictability of government and frequent changes in regulations that constrain individuals in their work. Furthermore, access to resources, both financial and in terms of personnel, is seen as being problematic.

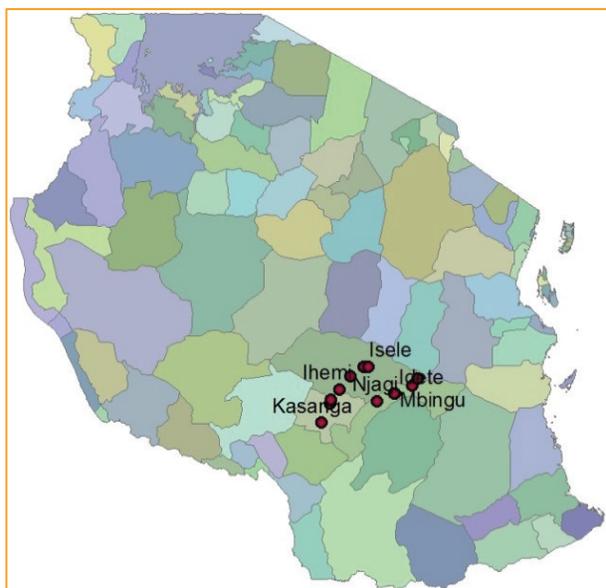
Participants proposed a series of useful measures to more successfully include women and youth within agricultural intensification: that processors improve working conditions within factories to attract women and youth to value-addition activities; to encourage and where possible facilitate ownership of land for women and youth; to promote contract farming with women and youth; to work with women and youth groups to establish greenhouses for high value crops such as vegetables. It was also felt that women were more trustworthy in relation to finances and should therefore be targeted for loans, something that is surprisingly not happening already. Whilst agricultural policy frameworks, such as the Agricultural Sector Development Strategy and the Agricultural Sector Development Plan, aim to promote equitable participation within agricultural intensification, it is difficult to track progress due to a lack of disaggregated monitoring data. In addition, such policy frameworks are silent on intra-household gender relations.

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Papaya Policy Brief D – Tanzania



This policy brief offers an overview of the policy framework in Tanzania, district-level trends in agricultural intensification from Iringa and Morogoro followed by a description of stakeholders involved in agricultural intensification in these districts. Opinions of stakeholders were recorded during three district level workshops held in Kilombero, Kilomo and Mafinga in Tanzania during February 2017.

National Level Policy Framework and agricultural trends

The key policy documents in mainland Tanzania are the Agricultural Sector Development Strategy (ASDS), implemented through the Agricultural Sector Development Programme (ASDP), now both in second phases. In 2013, a National Agricultural Policy was adopted. The main aim of these documents is to improve productivity and increase private sector investment within the agricultural sector, thus contributing to the National Strategy for Growth and Poverty Reduction (MKUKUTA). Tanzania also has an Agricultural Food Security Investment Plan (TAFSIP) under the Comprehensive Africa Agriculture Development Programme (CAADP). Smallholders are a key target group for these policies, with the aim of introducing them to commercial farming. Around 75% of resources went to the local level.⁴ Simultaneously, private sector agricultural programmes such as Kilimo Kwanza and the Green Belt Initiative are focusing on commercialization of agriculture and have been criticized for promoting large-scale agribusiness at the expense of smallholders.

Within these frameworks, the crucial role of women and youth in agriculture is recognized and there is an explicit aim to promote equitable participation in both production and benefits. While a number of concrete measures are proposed, such as improved access to credit, land, technology, training and market information for women and youths, it is difficult to track progress due to a lack of disaggregated monitoring data.⁵ Furthermore, the ASDS and the ASDP are silent on intra-household gender relations. The National Agriculture Policy of Tanzania does, however, recognize that there are social and cultural constraints to women's full participation in agriculture, aims for equitable participation in decision making and the eradication of cultural practices.

⁴ Isinika, A and E. Msuya (2016) Gender and Inclusion: The Dynamics of Non-Farm/Farm Linkages for Pro-Poor Agricultural Growth in Tanzania, Afrint III Macro Study: Tanzania, <https://goo.gl/2zdExC> Retrieved 2016-10-31, C Deijl, (forthcoming) AgriFoSe 2030 Policy Baseline Report.

⁵ Isinika and Msuya, *ibid.*

District Level Agricultural Trends

AFRINT research collected data from a total of 400 households in Iringa and Morogoro districts during three cross sections of panel data: 2002, 2008 and 2015. Table 1 shows the distribution of households per village. Table 2 shows the number of households headed by men and women included in the sample.

Table 1: AFRINT households per village

Region	Divison	Village	2002	2008	2015
Iringa	Mlolo	Ihemi	40	38	35
	Kilolo	Isele	41	42	39
	Mazombe	Kipaduka	43	41	41
	Kasanga	Kasanga	40	40	39
	Ifwagi	Kitelewasi	40	41	39
Morogoro	Ifakara	Idete	40	39	39
	Mang'ula	Katurukila	39	43	42
		Kiberege	39	43	42
	Mngeta	Mbingu	40	42	41
Njagi		41	39	39	
Total			403	408	396

Table 2: Percentage of households headed by men and women per district.

Region	Men			Women		
	2002	2008	2015	2002	2008	2015
Morogoro	81.9	85.0	84.7	18.1	15.0	15.3
Iringa	77.9	82.2	72.0	22.1	17.8	28.0
Total	79.9	83.6	78.5	20.1	16.4	21.5

Table 3 shows that whilst the area under maize in these areas decreased between 2002 and 2008, it expanded again by 2015. During this time, the average maize yield has increased significantly in both districts (Table 4).

Table 3: Average area under maize pure stand equivalent (ha)

	(a) 2002 Season	(b) 2008 Season	(c) 2015 Season	(d) % change
Morogoro	0.623	0.54	0.62	13.0
Iringa	1.351	1.14	1.04	-10.0
Total	1.033	0.87	0.86	-3.9

Table 4: Average maize yield (kg/hectare)

Region	(a) 2002 Season	(b) 2008 Season	(c) 2015 Season	(d) % change
Iringa	1341	1360.83	1755.12	22.5
Morogoro	560	584.72	853.58	31.5

Total	1004	1028.53	1382.87	25.6
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When we assess maize productivity across farms managed by men and women which have kept the same marital status across all three cross sections, we find farms managed by women have increased maize yields from 777kgs in 2002 to 1540kgs per hectare in 2015 (a 98.2% increase), compared to from 1036kgs and 1481kgs per hectare for men (a 43% increase). Regarding the type of seeds used, only 12% of households in Morogoro used improved/hybrid seeds in 2015 whilst in Iringa the figure was higher at 27%. The use of hybrid seed varieties was highest households headed by men (Table 5).

Table 5: Type of seed used 2015 season by gender

	Women (n=74)	Men (n=283)	All (n=357)
Traditional	83.8	78.8	79.8
Improved variety (OPV, composites)	13.5	14.5	14.3
Hybrid	2.7	6.7	5.9

During the study period, the most common method of crop preparation remained hoe cultivation. The use tractors had increased considerably between 2002 and 2015 in both districts (Table 6).

Table 6: Main means of land preparation for maize (% households)

	Iringa		Morogoro		All	
	2008	2015	2008	2015	2008	2015
Hoe cultivation	59	52	96	54	75	53
Oxen ploughing	39	38	1	27	22	33
Tractor ploughing	2	10	3	19	3	14

Table 7 shows that about 53% of households in Morogoro and 60% in Iringa sold maize in the 2015 season. Households headed by men sold more maize (1,279kgs) than households headed by women (568kgs). Furthermore, the amount of maize sold increased from 2002 to 2015.

Table 7: Average amount of maize sold by household 2002, 2008 and 2015

	2002	2008	2015
Morogoro	411,39	518,19	629,39
Iringa	962,93	1007,12	1219,90
Whole sample	707,18	834,21	966,83

Tables 8 - 11 show details on paddy rice production. The average area under paddy increased slightly whilst paddy production almost doubled between 2002 and 2015. Table 10 shows that the yields of households headed by women were almost half those of households headed by men in 2015. Table 11 shows that the majority of paddy is sold.

Table 8: Average area under paddy (ha) with respect to gender 2002, 2008 and 2015 seasons

	2002	2008	2015
N	194	189	195
Mean area (ha)	1.02	0.92	1.17
Std. Dev.	0.73	0.56	0.93

Table 9 Paddy production (kg) 2002, 2008 and 2015

	(a) 2002	(b) 2008	(c) 2015
N	193	193	195
Mean	1577.00	1370.26	2815.82

Table 10: Average paddy yield by gender 2015, kgs/hect

	Women	Men
N	30	163
Mean	1706.30	2954.12
Std. Dev.	1268.04	2824.52

Table 11: Average Paddy sold per household (kg) 2002, 2008 and 2015 seasons

	(a) 2002	(b) 2008	(c) 2015	(d) % change
N	49	141	174	-
Mean	1007	896.29	1901.45	52.9

Table 12 provides an overview of the main sources of income of households in the two districts in 2015. Household income was higher for households headed by men whilst the proportion of income accruing from farm and non-farm activities was similar for both types of households. Morogoro enjoys a higher proportion of income from farm sources, especially from staple food crops.

Table 12: Household income sources 2015 by gender and region

	Women (n=80)	Men (n=293)	Iringa (n=183)	Morogoro (n=190)
Household annual income (USD/year)	441.98	670.67	564.71	676.44
Ratio food staple	44.26	38.26	23.34	55.15
Ratio micro business	18.00	18.64	21.47	15.67
Non-farm	30.51	30.45	34.42	26.62
Farm	69.49	69.11	65.47	72.85
Total	100	99.56	99.88	99.47

Table 13 and 14 provide an overview of the standard of living in the Iringa and Morogoro by looking at assets owned by household and house standards disaggregated by gender of the household head. In relation to house standards, an increase over time can be seen. However, in terms of assets owned, it can be seen that households headed by men were significantly better off than households headed by women in 2015.

Table 13: Assets owned by household

Assets	Women (n=85)	Men (n=311)	Morogoro (n=203)	Iringa (n=193)	All (n= 396)
Mobile or stationary telephone	65.9	76.5	79.3	68.9	74.2
Bicycle	42.4	76.5	77.8	60.1	69.2
Sofa set	11.8	21.2	14.8	23.8	19.2
Motor bike	8.2	15.1	11.8	15.5	13.6
TV-set	4.7	11.9	11.3	9.3	10.4
Sewing machine	7.1	9.6	9.9	8.3	9.1
Kerosene or other modern stove	7.1	7.1	9.4	4.7	7.1
Gas cooker	0.0	1.0	1.0	0.5	0.8
Car	0.0	0.3	0.0	0.5	0.3

Table 14: House standards by gender and years

	Women (n=85)	Men (n=311)	2002	2008	2015
Mud house with thatched grass	14.5	14.3	52	30.0	14.4
Mud house with iron sheet roof	34.9	22.1	20	20.0	24.9
Brick/block house with iron sheet roof	45.8	59.9	27	48.0	56.9
Modern block house with iron sheet roof and paved floor	4.8	3.6	-	-	3.8

The information above points to how increased intensification has resulted in increased productivity. This in turn has led to higher household incomes due to higher participation of households in markets. This has resulted in improved livelihoods measured in terms of access to food and improvements in housing quality. In both districts it can be seen that housing standards have improved when comparing 2002 and 2015 results. Despite this it can be seen that households headed by women are lagging behind, farming less land and therefore having less produce to sell at market. Furthermore, market access for women is limited due to both transportation issues, but also cultural issues.

The opportunities and challenges faced by district-level stakeholders in relation to including women and youth in sustainable agricultural intensification are summarized in Tables 15 and 16 below. These included cultural beliefs about the position and roles of women in society and in agriculture, that women are seen as fragile and not suitable for certain agricultural tasks as well as general male chauvinism. Furthermore, there was a perception that women are not proactive enough and are therefore not included.

All participants in the workshops took women and youth into consideration when working with sustainable agricultural intensification and that they have a fair amount of freedom in carrying out their work and can thus take measures to increase equity in intensification. They say women and youth as one of their main target groups and that targeting initiatives at them would have a positive impact on development dynamics. It was also felt that women were more trustworthy in relation to finances and should therefore be targeted for loans, something that is not happening currently.

Key challenges included the unpredictability of government and frequent changes in regulations, such as export bans, that constrain individuals in their work. Furthermore, access to resources, both financial and human capacity, was problematic. In Mufindi, it was pointed out that the formalization of farmer's groups was complex and time consuming which had an impact on the timely accessibility of financial and other services that require a formally registered organization. Papaya is working with stakeholders from 2017-2020 to increase the likelihood of women and youth contributing to agricultural intensification and reaping benefits therefrom.

Table 15: Actors involved in Agriculture intensification in each District

Actor Groups	Kilombero	Kilolo	Mufindi
Government (Central and Local)	Extension officers	√	√
	Extending Rice Production Project		
	National Environmental Management Council	National Environmental Management Council	
		Rufiji Basin	
	Kilombero District Council	Kilolo district Council	Mufindi district council
	Ifakara Township Authority	Mafinga Township Authority	
Private Entities	Kilombero Plantation Limited	Mtanga Farm	YARA international
	Kilombero Valley Teak Company	BALTON (t) Limited	Uniliver
	Kilombero Sugar Company - ILOVO		Green resources Limited
	Input suppliers		
	Processors		
	TAN RICE limited		
Research / Projects	Kilombero Agricultural Training and Research Institute	Growing Africa's Agriculture (AGRA)	Kifyulilo Agriculture Research Institute
	Tanzania Agriculture Partner	√	√
			Ihazutwa Agriculture Training Center
			East Africa Dairy Development Project
		Tea Research Institute (TRIT)	
NGOs	Kilombero Valley Environmental Development Organization	One Acre Fund	√
	Rural Urban Development Initiative	√	
	Tanzania Staples Value Chain (NAFAKA) Project	√	√
	Africa Wildlife Foundation	RUTUBA Farm	COASI
		Bill Clinton Foundation	FIPS Africa
		Mwanzo bora	
	CEFA		
Development Partners	Japan International Cooperation Agency	√	
		USAID	
		World Bank	
Financial Institutions	National Micro Finance Bank	√	√
	Tanzania Agricultural Development Bank	√	√
	Opportunity TZ	CRDB Bank Plc	
	YETU Microfinance	Mazombe SACCOS	

	FINCA International	Malimbichi SACCOS	
		MUCOBA Bank	√
Farmer Organization	MVIWATA		Tanzania Farmers Association (TFA)
	Irrigation organization (IO)		
	Association of Kilombero Rice Growers		
	Tanzania Chamber of Commerce, Industry and Agriculture		√

Table 16: Changes needed for higher integration of gender and generation in sustainable intensification

Actor Groups	Kilombero	Kilolo	Mufindi
Government (Central and Local)	Continue to provide policy guidelines that emphasise women and youth inclusion.	Improved extension services with special emphasis on women and youth engagement in sustainable agricultural intensification Work to have land use management policy for each village	Continue to set aside funds for integration of gender and generational equity Ensuring each village has an extension officer Enable extension officers to use new technology to reach women and youth
Private Entities	Processors to improve working environment to attract women and youth in value addition activities		Promote contract farming with women and youth
Research/ Projects	Research activities should involve women and youth more. Provide capacity building on behaviour change about women and youth integration in agricultural intensification activities		Special training privileges for women and youth
NGOs	Work more with women and youth in their activities. Selection criteria of beneficiaries, more attention should be given to women and youth. Encourage and where possible facilitate ownership of land for women and youth.	Encouraged farmers especially women and youth to work in groups	Capacity building for women and youth to analyze and utilize opportunities available in sustainable agriculture intensification Work with women and youth groups to establish greenhouses for high value crops such as vegetables



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