SUPPLEMENTARY MATERIAL

DEMOCRATIC DELIBERATION AND THE RESOURCE CURSE

A Nationwide Experiment in Tanzania

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APPENDIX I
FULL TEXT OF POLL QUESTIONS, BY INDEX

The following pages list the wording of each question as read to respondents, after translation from Kiswahili to English. Each question employs a five, seven, or eleven-point response scale, always with an option of perfect indifference or ambivalence. Below, each question bears one, two, or three asterisks next to its identification number. One asterisk indicates the question has a five-point scale; two indicates it has a seven-point scale, and three indicates that it has an eleven-point scale. The five and eleven-point scale responses offer the respondent degrees of agreement or disagreement, while the seven-point scale is used for questions that pose a choice between two policy alternatives, as follows.

- **Five-point scale (*):**

(1) Yes, strongly agree

(2)

(3) Neutral

(4)

(5) No, strongly disagree

(98) Refused

(99) No opinion

- **Seven-point scale (**):**

(1) Strongly agree with proposal A

(2)

(3)

(4) Exactly in the middle

(5)

(6)

(7) Strongly agree with proposal B

(98) Refused

(99) No opinion

- **Eleven-point scale (***):**

(0)   Extremely unimportant

(1)

(2)

(3)

(4)

(5) Exactly in the middle

(6)

(7)

(8)

(9)

(10)   Extremely important

(98) Refused

(99) No opinion

Index 1: Support for extracting and exporting the gas

H1_1***

Use the gas to reduce the price of fuel.

H1_2**

Some people think that Tanzania should use the gas for fuel for Tanzanians. Suppose these people are at 1 on the scale. Other people think Tanzania should sell the gas to earn money. Suppose these people are at 7 on the scale. Those who are exactly in the middle are at 4. Where would you place yourself?

H1_3**

Some people think that Tanzania should leave the natural gas in the ground, to save for the future and avoid trouble. Suppose these people are at 1 on the scale. Other people think the gas should be extracted to provide fuel and make money. Suppose these people are at 7 on the scale. Those who are exactly in the middle are at 4. Where would you place yourself?

H1_4**

Some people think that Tanzanians should pay the full price for energy so that the earnings from selling natural gas can be used for roads, schools, clinics, and electricity lines. Suppose these people are at 1 on the scale. Other people think the gas should be used mostly to produce electricity so that electricity would be very cheap for all Tanzanians. Suppose these people are at 7 on the scale. Those who are exactly in the

middle are at 4. Where would you place yourself?

H1_5**

Some people think that all of the gas should be sold at the highest possible price to get the most money for Tanzania. Suppose these people are 1 on the scale. Other people think that some of the gas should be discounted to help local industry grow, even if this means that Tanzania receives less money from the sale of gas. Suppose these people are at 7 on the scale. Those who are exactly in the middle are at 4. Where would you place yourself?

Index 2: Support for saving rather than spending gas revenue

H2_1**

Some countries, such as Norway, place strict limits on the amount of money that can be spent each year from oil and gas revenues so that the money can be used over a longer period of time. Suppose these countries are at 1 on the scale. Other countries, such as Ghana, have very loose limits on how much money is spent from oil and gas revenues so that more money can be spent immediately to help Ghana's economy. Suppose these countries are at 7 on the scale. Those who are exactly in the middle are at 4. What do you think is the right solution for Tanzania? Strict limits on spending like Norway or loose limits like Ghana or somewhere in between? Please choose a number between 1 and 7 if 1 is for very strict limits and 7 is for very loose limits.

H2_2***

Spend some money on building things for the people, such as roads and the electricity system

H2_3***

Spend some of the money on public services, such as health care and education

H2_4***

Save some of the money for future generations

H2_5**

Some people think the money should be saved mostly for the future even if that means there is not much of an increase in spending now. Suppose these people are at point 1 on the scale. Other people think that the money should be spent now even if that means that in the future there will be nothing left. Suppose these people are at point 7 on the scale. Those who are exactly in the middle are at 4. Where would you place yourself?

H2_6**

Rather than waiting for the money from oil and gas to begin flowing, Tanzania should use the expected money from gas to borrow money from overseas and start spending sooner, even though the government will need to repay more than the original amount borrowed.

H2_7**

Some people think the money should be spent by the government on building things the

people need, such as roads or the electricity system even if that means there will be no extra money for public services. Suppose these people are at point 1 on the scale. Other people think the money should be spent on improving public services such as health care and education even if that means there will be no extra money for building things such as roads or the electricity system. Suppose these people are at 7. Those who are exactly in the middle are at 4. Where would you place yourself?

Index 3: Support for government spending versus direct distribution

H3_1***

Give some money directly to households to spend for their own needs however they want

H3_2***

Give some money directly to those households with children or the elderly

H3_3***

Giving most of the money directly to households will fight poverty and hunger

H3_4***

Giving most of the money directly to the people will help children in poor families have better nutrition and a greater chance of doing well in school

H3_5***

Giving most of the money directly to households will make the government more accountable for the amount people expect each year

H3_6**

Some people think that the money should be given directly to households even if that means there will be no increased money for the government to spend on what the public needs. Suppose these people are at 1 on a scale from 1 to 7. Other people think that the money should be spent by the government for what the public needs even if that means there will be no extra money to give directly to the people. Suppose these people are at 7 on the scale. Those who are exactly in the middle are at 4. Where would you place yourself?

H3_7*

What if some money is put into a savings account for every child at birth with each child having access to the resulting money at age 18?

H3_8*

What if some money is put into a savings account for every adult starting at age 40 with each adult having access to the resulting money at age 60?

Index 4: Support for government spending on social services versus infrastructure, transport, and industry

H4_1***

Using most of the money to build things such as roads and the electricity system will create jobs

H4_2*

Using most of the money to build things such as roads and the electricity system will help the economy grow much faster

H4_3*

Spending most of the money on services such as health care and education will help poor people

H4_4*

Spending most of the money on services such as health care and education will help the economy grow much faster

H4_5*

Some people say that when the government increases spending on roads and schools a lot of money is wasted during these projects.

H4_6**

Some people think the money should be spent by the government on building things the people need, such as roads or the electricity system even if that means there will be no extra money for public services. Suppose these people are at point 1 on the scale. Other people think the money should be spent on improving public services such as health

care and education even if that means there will be no extra money for building things such as roads or the electricity system. Suppose these people are at 7. Those who are exactly in the middle are at 4. Where would you place yourself?

Index 5: Support for transparency and oversight of gas revenues, or additional restrictions on their use

H5_1**

Some people think that the government should be able to keep the oil and gas contracts with companies private and not allow citizens access to them so that sensitive information between companies and the government is kept private. Suppose these people are at 1 on the scale. Other people think that all oil and gas contracts should be published for citizens to access them so that citizens know how much money the government is receiving from oil and gas companies. Suppose these people are at 7 on the scale. Those who are exactly in the middle are at 4. Where would you place yourself?

H5_2**

Some people think the government should decide how to spend most of the money from natural gas over the years since the government is elected by the people. Suppose these people are at 1 on the scale. Other people think most of the money should be managed by an independent and international group of experts appointed by government, to help ensure the money is not wasted or stolen over the years. Suppose these people are at 7. Those who are exactly in the middle are at 4. Where would you place yourself?

H5_3***

Entrusting most of the money to the national government will ensure it is spent where it is most needed

H5_4

What, if anything, have you heard about Tanzania's recent natural gas discoveries? Tanzania has…

Answer choices:

Not begun extracting or exporting the gas, (2) Begun extracting the gas but not exporting it, (3) Begun extracting and exporting the gas, (4) I haven't heard anything about the natural gas, (99) DON'T KNOW

H5_5

Where was the natural gas discovered?

Answer choices:

(1) Near Arusha, (2) Under Lake Victoria, (3) Offshore near Mtwara, (4) Morogoro, (-96) OTHER, (SPECIFY), (-99) DON'T KNOW

Index 6: Knowledge of the natural gas discovery

H6_1

During whose presidency were recent offshore natural gas discoveries made?

Answer choices:

(1) During Nyerere's presidency, (2) During Mwinyi's presidency, (3) During Mkapa's

presidency, (4) During Kikwete's presidency, (-96) OTHER (SPECIFY), (-99) DON'T KNOW

H6_2

Do you think that the government has started receiving revenues from the recent discoveries of natural gas?

Answer choices:

(1) Yes, they have begun receiving a small portion of revenues, (2) Yes, they have begun receiving a large portion of revenues, (3) No, they have not begun receiving any revenues, (-99) DON'T KNOW

H6_3

The cost of building a new regional hospital?

Answer choices:

(1) More, (2) Less, (-99) DON'T KNOW

H6_4

The cost of building 10 new regional hospitals?

Answer choices:

(1) More, (2) Less, (-99) DON'T KNOW

H6_5

The size of the entire national government budget?

Answer choices:

(1) More, (2) Less, (-99) DON'T KNOW

H6_6

The size of the whole national economy

Answer choices:

(1) More, (2) Less, (-99) DON'T KNOW

H6_7

If it was divided evenly among all Tanzanians, how much natural gas revenue do you think there will be each year for each person? (TSh)

Answer choices:

(1) Less than 1,000 shillings, (2) 1,000 to 10,000 shillings, (3) 10,000 to 100,000 shillings, (4) 100,000 to 1m shillings, (5) Over TSh 1m, (-99) DON'T KNOW

Appendix II: Average poll responses by question and treatment group

Table A1: Levels and changes by indicator and treatment group

	Control			Information			Info. + Deliberation			Balance		Diff-in-Diff	
	t= 0	t= 1	Δ	t= 0	t= 1	Δ	t= 0	t= 1	Δ	(4)-(1)	(7)-(1)	(6)-(3)	(9)-(3)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
H1: Sell													
Sell gas (vs use for energy)	0.10***	0.20***	0.09***	0.08***	0.22***	0.15***	0.09***	0.30***	0.21***	-0.02	-0.01	0.05	0.12***
	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)	(0.02)	(0.03)	(0.04)	(0.04)	(0.05)	(0.04)
Do not subsidize energy	-0.22***	-0.27***	-0.05	-0.24***	-0.30***	-0.05	-0.22***	-0.20***	0.02	-0.02	-0.00	-0.00	0.07
	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.02)	(0.02)	(0.04)	(0.03)	(0.03)	(0.05)	(0.05)
Extract vs leave in ground		0.49***	0.49***		0.49***	0.49***		0.48***	0.48***			-0.01	-0.01
		(0.00)	(0.00)		(0.00)	(0.00)		(0.00)	(0.00)			(0.00)	(0.00)
Sell gas vs fuel (2)		0.47***	0.47***		0.47***	0.47***		0.47***	0.47***			-0.00	0.00
		(0.00)	(0.00)		(0.00)	(0.00)		(0.00)	(0.00)			(0.00)	(0.00)
Don't subsidize energy (2)		-0.24***	-0.24***		-0.25***	-0.25***		-0.21***	-0.21***			-0.01	0.03
		(0.01)	(0.01)		(0.02)	(0.02)		(0.02)	(0.02)			(0.02)	(0.02)
H2: Save													
Strict limits on spending	0.11***	0.08***	-0.04	0.13***	0.13***	-0.01	0.09***	0.12***	0.02	0.02	-0.02	0.02	0.05
	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)	(0.02)	(0.03)	(0.04)	(0.03)	(0.05)	(0.04)
Against infrastructure	-0.37***	-0.32***	0.05***	-0.37***	-0.33***	0.05**	-0.35***	-0.33***	0.02	0.00	0.02	-0.00	-0.03
	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)
Against health & educ.	-0.40***	-0.34***	0.07***	-0.38***	-0.34***	0.05**	-0.36***	-0.34***	0.02	0.03	0.04**	-0.03	-0.05*
	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)
Save for future generations	0.23***	0.22***	-0.01	0.19***	0.19***	-0.01	0.18***	0.18***	-0.01	-0.04	-0.05*	-0.00	0.01
	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Save vs spend now	-0.10***	-0.24***	-0.14***	-0.08**	-0.22***	-0.15***	-0.07**	-0.22***	-0.15***	0.02	0.03	-0.01	-0.01
	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)	(0.02)	(0.04)	(0.04)	(0.03)	(0.05)	(0.05)
Don't use gas as collateral	0.07***	0.08***	0.01	0.04*	0.08***	0.03	0.03	0.07***	0.03	-0.03	-0.04	0.03	0.02
	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)

Table A1: Levels and changes by indicator and treatment group (continued)

| | Control | | | Information | | | Info. + Deliberation | | | Balance | | Diff-in-Diff | |
| | t= 0 | t= 1 | Δ | t= 0 | t= 1 | Δ | t= 0 | t= 1 | Δ | (4)-(1) | (7)-(1) | (6)-(3) | (9)-(3) |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
H3: Direct distribution													
Give money to all	0.09***	0.14***	0.05**	0.05*	0.10***	0.04	0.06**	0.03	-0.04	-0.04	-0.03	-0.01	-0.09**
	(0.02)	(0.01)	(0.02)	(0.03)	(0.02)	(0.03)	(0.03)	(0.02)	(0.03)	(0.04)	(0.04)	(0.04)	(0.04)
Give money to needy	0.24***	0.20***	-0.04*	0.19***	0.21***	0.01	0.24***	0.11***	-0.13***	-0.04	0.00	0.05	-0.09***
	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)	(0.04)	(0.03)
Cash transfers fight poverty	0.20***	0.22***	0.02	0.18***	0.20***	0.02	0.16***	0.15***	-0.01	-0.02	-0.04	-0.00	-0.03
	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)
Transfers = nutrition	0.25***	0.22***	-0.03	0.24***	0.21***	-0.03	0.23***	0.17***	-0.07**	-0.01	-0.02	0.00	-0.04
	(0.02)	(0.01)	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Transfers = accountability	0.12***	0.17***	0.05**	0.14***	0.16***	0.03	0.14***	0.11***	-0.03	0.01	0.01	-0.02	-0.08**
	(0.02)	(0.01)	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Cash vs public services	-0.18***	-0.25***	-0.07***	-0.18***	-0.27***	-0.09**	-0.22***	-0.31***	-0.09***	-0.00	-0.04	-0.02	-0.02
	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.02)	(0.02)	(0.03)	(0.04)	(0.03)	(0.05)	(0.04)
Cash to child savings accts	0.22***	0.23***	0.01	0.21***	0.28***	0.07**	0.24***	0.19***	-0.05*	-0.02	0.01	0.06*	-0.06
	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Cash to retirement accts	0.16***	0.19***	0.03	0.19***	0.19***	-0.00	0.20***	0.15***	-0.05	0.03	0.04*	-0.03	-0.07**
	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)
H4: Spend on social services													
Roads not important	-0.38***	-0.34***	0.05***	-0.37***	-0.32***	0.06**	-0.34***	-0.32***	0.02	0.01	0.04*	0.01	-0.02
	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)
Infrastr. not important	-0.37***	-0.34***	0.04**	-0.38***	-0.32***	0.06***	-0.34***	-0.31***	0.04	-0.00	0.03	0.03	0.00
	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)
Health & educ. important	0.48***	0.48***	-0.00	0.47***	0.48***	0.01	0.47***	0.48***	0.01	-0.01	-0.01	0.01	0.01
	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Social services = growth	0.48***	0.48***	-0.00	0.47***	0.48***	0.01	0.47***	0.48***	0.01	-0.01*	-0.01	0.01	0.01
	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)

Table **A1**: Levels and changes by indicator and treatment group (continued)

	Control			Information			Info. + Deliberation			Balance		Diff-in-Diff	
	t= 0	t= 1	Δ	t= 0	t= 1	Δ	t= 0	t= 1	Δ	(4)-(1)	(7)-(1)	(6)-(3)	(9)-(3)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Infrast. = corruption	-0.07***	-0.07***	0.00	-0.04	-0.11***	-0.07*	-0.06**	-0.00	0.07*	0.03	0.00	-0.07	0.07
	(0.02)	(0.02)	(0.03)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)	(0.03)	(0.04)	(0.05)
Social services vs infrastr.	0.17***	0.12***	-0.05*	0.21***	0.13***	-0.08**	0.13***	0.22***	0.10***	0.04	-0.04	-0.03	0.14***
	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)	(0.02)	(0.03)	(0.04)	(0.03)	(0.05)	(0.04)
H5: Transparency													
Publish contracts	0.33***	0.35***	0.02	0.31***	0.38***	0.06**	0.29***	0.37***	0.08***	-0.02	-0.03	0.05	0.06**
	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)
International oversight	-0.07***	0.06***	0.13***	-0.06**	-0.00	0.05	-0.06**	0.13***	0.20***	0.01	0.01	-0.08*	0.07*
	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)	(0.02)	(0.03)	(0.04)	(0.03)	(0.05)	(0.04)
Don't entrust money to govt	-0.23***	-0.18***	0.06**	-0.23***	-0.15***	0.07*	-0.24***	-0.17***	0.07**	0.01	-0.00	0.01	0.01
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.04)	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
H6: Knowledge													
Heard about gas?	0.40***	0.48***	0.07***	0.40***	0.49***	0.08***	0.41***	0.48***	0.07***	0.00	0.01	0.00	-0.01
	(0.01)	(0.00)	(0.01)	(0.02)	(0.00)	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Where is the gas?	-0.02	0.17***	0.17***	-0.01	0.23***	0.22***	0.04	0.35***	0.29***	0.00	0.05	0.05	0.13***
	(0.03)	(0.03)	(0.02)	(0.04)	(0.03)	(0.04)	(0.04)	(0.02)	(0.03)	(0.05)	(0.05)	(0.04)	(0.04)
When was it found?	-0.07**	-0.02	0.04	-0.04	0.03	0.07	-0.01	0.11***	0.11***	0.02	0.05	0.03	0.07
	(0.03)	(0.02)	(0.03)	(0.04)	(0.03)	(0.05)	(0.03)	(0.03)	(0.04)	(0.05)	(0.04)	(0.05)	(0.05)
Is money already flowing?	-0.24***	-0.10***	0.14***	-0.24***	-0.03	0.21***	-0.18***	0.13***	0.31***	-0.00	0.06	0.07	0.17***
	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.05)	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)	(0.06)	(0.05)
Is gas worth > a hospital?	-0.04	0.18***	0.21***	-0.03	0.20***	0.23***	0.02	0.27***	0.23***	0.01	0.06	0.03	0.03
	(0.03)	(0.02)	(0.04)	(0.04)	(0.03)	(0.05)	(0.04)	(0.02)	(0.04)	(0.05)	(0.05)	(0.06)	(0.06)
...ten hospitals?	0.21***	0.36***	0.11***	0.30***	0.40***	0.11***	0.27***	0.36***	0.13***	0.08*	0.06	0.01	0.02
	(0.04)	(0.01)	(0.03)	(0.03)	(0.02)	(0.04)	(0.04)	(0.02)	(0.04)	(0.05)	(0.05)	(0.05)	(0.05)
...the entire gov't budget?	-0.32***	-0.30***	-0.00	-0.30***	-0.30***	0.04	-0.34***	-0.31***	0.02	0.02	-0.02	0.04	0.02
	(0.03)	(0.02)	(0.04)	(0.04)	(0.03)	(0.06)	(0.03)	(0.02)	(0.05)	(0.05)	(0.04)	(0.07)	(0.06)

Table **A1**: Levels and changes by indicator and treatment group (continued)

	Control			Information			Info. + Deliberation			Balance		Diff-in-Diff	
	t= 0	t= 1	Δ	t= 0	t= 1	Δ	t= 0	t= 1	Δ	(4)-(1)	(7)-(1)	(6)-(3)	(9)-(3)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
...the entire nat'l economy?	-0.31***	-0.32***	-0.07	-0.38***	-0.36***	0.05	-0.35***	-0.34***	-0.03	-0.07	-0.04	0.12	0.04
	(0.04)	(0.02)	(0.06)	(0.04)	(0.03)	(0.08)	(0.03)	(0.03)	(0.06)	(0.05)	(0.05)	(0.10)	(0.08)
How much if divided equally?	-0.41***	-0.34***	0.08***	-0.42***	-0.32***	0.11***	-0.40***	-0.30***	0.10***	-0.01	0.02	0.03	0.02
	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)

All variables are rescaled so that the midpoint, representing indifference, is zero. The range of each variable is one, extending from -0.5 to 0.5. Column 1 shows the average value for the control group of each indicator in the baseline survey, and column 2 for the follow-up survey. Column 3 shows the change between periods. Columns 4 to 6 repeat this for the information only treatment group, and columns 7 to 9 for the group assigned to information plus deliberation. Columns 10 and 11 report balance tests at baseline. Columns 12 and 13 report difference-in-differences, comparing changes over time in each treatment group to changes in the control group. Standard errors, clustered at the village level, are reported in parentheses.

Appendix III: Measuring household socio-economic status

Household consumption is the basis for official poverty and inequality estimates in Tanzania. To measure the socio-economic status of our poll respondents, we rely on a predicted measure of household consumption expenditure, using sixty-four consumption predictors in our poll data. These sixty-four predictors are based on questions borrowed from the questionnaire for Tanzania's National Panel Survey (NPS round 2, 2010/11), a nationally representative household survey conducted by Tanzania's National Bureau of Statistics to produce poverty estimates.

We constructed our consumption prediction as follows:

1. As preparation for the poll, we used the existing NPS data to perform a stepwise regression of consumption on dozens of candidate predictors. Our consumption measure is the natural logarithm of total household consumption per annum per adult equivalent, measured in 2011 PPP dollars (henceforth C). Questions were selected for inclusion in the poll based on their predictive power in the stepwise regression and the ease of administering them in the field.

2. We use the final set of sixty-four indicators that overlap between the NPS and the poll to fit a simple regression model of C in the NPS data. The regression is performed at the level of the individual household member, with a sample size of 9,015 individuals, and predictors are a combination of household and individual characteristics. Results are shown in Table 10. The R-squared of the model is fairly high, at 0.64. Inevitably, the variance of the predicted values (0.61) is somewhat lower than the actual consumption data (0.73), but as seen in Figure 4a, the distributions correspond fairly closely.

3. Finally, we apply the regression parameters from the model of C in the NPS data to the

individuals in the polling data, generating our measure of predicted consumption, $\hat{C}$. As seen in Figure 4b, the distribution of $\hat{C}$ in the polling data corresponds quite closely to the distribution of $\hat{C}$ in the NPS sample, suggesting the poll achieved a relatively representative national sample and that questions were administered and understood consistently across the two samples. The mean and standard deviation of $\hat{C}$ are 6.9 and 0.61 in the NPS sample and 6.8 and 0.57 in the poll data.

In the main text we refer to this measure of $\hat{C}$ simply as 'consumption.'

Table A2: Consumption predictors

	Sample mean (Standard deviation)		Regression coefficient (Standard error)
	NPS sample (1)	Poll sample (2)	NPS sample (3)
	(1) Consumption	(2) poll	(3) chat
Adult equivalents in household	5.151 (3.148)	4.791 (2.342)	-0.0867 (0.00833)
Total household members	6.264 (3.890)	5.802 (2.792)	-0.0114 (0.00666)
Occupation: Paid employee	0.110 (0.313)	0.0562 (0.230)	-0.110 (0.0403)
Occupation: Self-employed, employees	0.0144 (0.119)	0.0544 (0.227)	0 (.)
Occupation: Self-employed, no employees	0.0837 (0.277)	0.235 (0.424)	-0.150 (0.0409)
Occupation: Unpaid family helper (non-ag)	0.0539 (0.226)	0.0392 (0.194)	-0.158 (0.0428)
Occupation: Unpaid family helper (ag)	0.151 (0.358)	0.120 (0.325)	-0.269 (0.0403)
Occupation: Own farm or shamba	0.204 (0.403)	0.265 (0.442)	-0.264 (0.0399)
Occupation: None	0.383 (0.486)	0.231 (0.421)	-0.278 (0.0389)
Able to read/write	0.782 (0.413)	0.822 (0.382)	0.00449 (0.0224)
Education: None	0.178 (0.383)	0.110 (0.314)	-0.746 (0.0573)
Education: Less than a year	0.00568 (0.0752)	0.00720 (0.0846)	-0.750 (0.0815)
Education: Std I	0.0169 (0.129)	0.0163 (0.127)	-0.776 (0.0641)
Education: Std II	0.0199	0.0271	-0.744

Table A2: Consumption predictors (continued)

	Sample mean (Standard deviation)		Regression coefficient (Standard error)
	NPS sample (1)	Poll sample (2)	NPS sample (3)
	(0.140)	(0.162)	(0.0621)
Education: Std III	0.0447	0.0403	-0.734
	(0.207)	(0.197)	(0.0565)
Education: Std IV	0.0201	0.0154	-0.728
	(0.140)	(0.123)	(0.0612)
Education: Std V	0.0227	0.0127	-0.782
	(0.149)	(0.112)	(0.0603)
Education: Std VI	0.476	0.587	-0.718
	(0.499)	(0.492)	(0.0524)
Education: Std VII	0.00311	0.00256	-0.647
	(0.0557)	(0.0506)	(0.0962)
Education: Std VIII	0.0123	0.00986	-0.607
	(0.110)	(0.0988)	(0.0656)
Education: Primary + Course	0.0113	0.0109	-0.687
	(0.105)	(0.104)	(0.0669)
Education: Form I	0.0314	0.0279	-0.656
	(0.174)	(0.165)	(0.0576)
Education: Form II	0.0289	0.00799	-0.664
	(0.168)	(0.0890)	(0.0581)
Education: Form III	0.0766	0.0807	-0.587
	(0.266)	(0.273)	(0.0539)
Education: Form IV	0.0197	0.0214	-0.515
	(0.139)	(0.145)	(0.0604)
Education: Form IV + Course	0.00495	0.00355	-0.505
	(0.0702)	(0.0595)	(0.0823)
Education: Form V	0.00630	0.00128	-0.475
	(0.0791)	(0.0358)	(0.0766)
Education: Form VI	0.00253	0.00197	-0.406
	(0.0502)	(0.0444)	(0.104)

Table A2: Consumption predictors (continued)

	Sample mean (Standard deviation)		Regression coefficient (Standard error)
	NPS sample (1)	Poll sample (2)	NPS sample (3)
Education: Form VI + Course	0.00566 (0.0750)	0.00700 (0.0834)	-0.318 (0.0789)
Education: Ordinary diploma	0.00274 (0.0523)	0.00246 (0.0496)	-0.267 (0.103)
Education: University	0.00234 (0.0484)	0 (0)	-0.252 (0.110)
Resides: Dodoma region	0.0445 (0.206)	0.0489 (0.216)	-0.103 (0.0249)
Resides: Tanga region	0.0425 (0.202)	0.0988 (0.298)	-0.0467 (0.0238)
Resides: Morogoro region	0.0494 (0.217)	0.0499 (0.218)	0.129 (0.0222)
Resides: Pwani region	0.0250 (0.156)	0.0493 (0.217)	0.231 (0.0303)
Resides: Dar region	0.0967 (0.296)	0.0978 (0.297)	0.479 (0.0188)
Resides: Mtwara region	0.0315 (0.175)	0.0498 (0.218)	0.0120 (0.0271)
Resides: Ruvuma region	0.0324 (0.177)	0.0502 (0.218)	-0.0673 (0.0271)
Resides: Mbeya region	0.0630 (0.243)	0.149 (0.357)	0.0657 (0.0202)
Resides: Kigoma region	0.0381 (0.192)	0.0994 (0.299)	-0.0880 (0.0254)
Resides: Shinyanga region	0.0891 (0.285)	0.0491 (0.216)	-0.0184 (0.0180)
Resides: Mwanza region	0.0829 (0.276)	0.0984 (0.298)	0.0666 (0.0183)
Resides: Manyara region	0.0300	0.0493	-0.0822

Table A2: Consumption predictors (continued)

	Sample mean (Standard deviation)		Regression coefficient (Standard error)
	NPS sample (1)	Poll sample (2)	NPS sample (3)
	(0.171)	(0.217)	(0.0276)
Owns: mobile phone	1.261	1.617	0.109
	(1.448)	(1.416)	(0.00449)
Owns: hoes	2.874	2.739	0.0330
	(2.600)	(2.357)	(0.00251)
Owns: plough	0.127	0.170	0.121
	(0.546)	(0.560)	(0.0123)
Owns: livestock	6.912	7.432	0.00192
	(25.37)	(16.68)	(0.000262)
Cook with electricity	0.00194	0.000739	0.347
	(0.0440)	(0.0272)	(0.103)
Cook with charcoal	0.242	0.310	0.144
	(0.428)	(0.463)	(0.0144)
Shelter roof: mud/grass	0.0474	0.00370	0.0615
	(0.212)	(0.0607)	(0.0245)
Shelter roof: metal	0.657	0.734	0.133
	(0.475)	(0.442)	(0.0117)
Shelter roof: asbestos	0.00163	0.000493	0.109
	(0.0404)	(0.0222)	(0.111)
Toilet: None	0.119	0.0223	-0.0333
	(0.324)	(0.148)	(0.0152)
Toilet: VIP	0.0290	0.0152	0.142
	(0.168)	(0.122)	(0.0286)
Toilet: Flush	0.114	0.186	0.117
	(0.317)	(0.389)	(0.0171)
Lighting: gas	0.000534	0.00153	-0.470
	(0.0231)	(0.0391)	(0.217)
Lighting: lamp oil	0.687	0.274	-0.136
	(0.464)	(0.446)	(0.0117)

Table A2: Consumption predictors (continued)

	Sample mean (Standard deviation)		Regression coefficient (Standard error)
	NPS sample (1)	Poll sample (2)	NPS sample (3)
Lighting: candle	0.00607 (0.0777)	0.00696 (0.0831)	-0.0553 (0.0594)
Lighting: firewood	0.0138 (0.117)	0.00651 (0.0805)	-0.177 (0.0431)
Consumed: meat and fish	2.891 (2.281)	1.902 (2.105)	0.0371 (0.00219)
Consumed: milk products	1.740 (2.697)	1.388 (2.307)	0.0237 (0.00188)
Consumed: sugars	4.740 (3.021)	3.910 (3.090)	0.0351 (0.00183)
Consumed: fruits	2.013 (2.572)	2.321 (2.667)	0.0230 (0.00191)
Hunger during a week	1.656 (0.475)	0.395 (0.489)	0.0657 (0.0101)
Constant			7.405 (0.0728)
R-squared			0.64
Obs.			9008

Column 1 reports the mean of each varialbe in the NPS sample, with standard deviations in parentheses. Column 2 reports the same statistics for the poll sample. Column 3 reports coefficients on these same variables from a regression of log household consumption per adult equivalent per annum (in 2011 PPP dollars) using the NPS data. The set of independent variables consists of demographic and other indicators that were measured in both the NPS and the polling data at baseline.
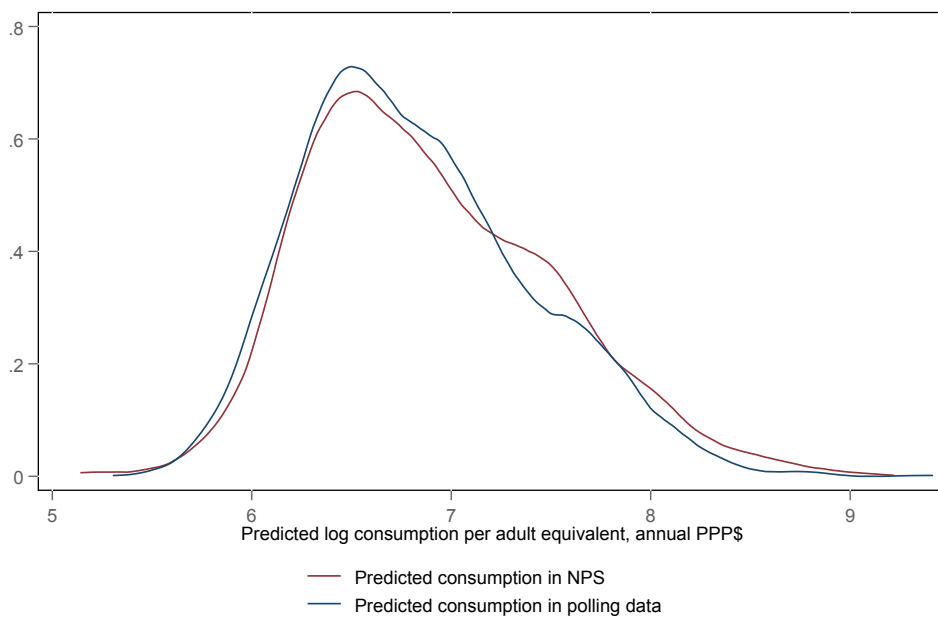
Figure A1: Distribution of actual and predicted household consumption

(a) Actual vs. predicted consumption in the NPS data
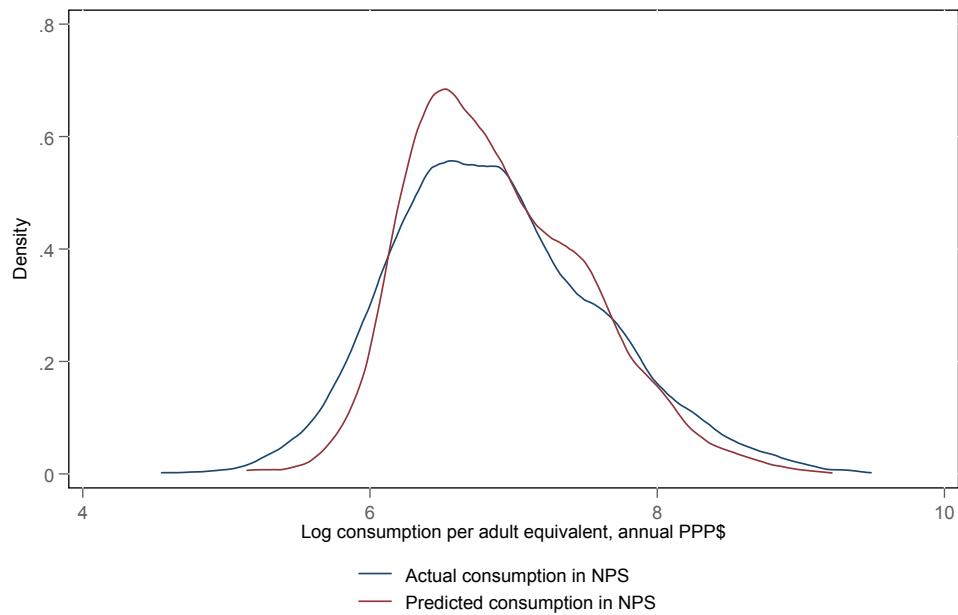
(b) Predicted consumption in the NPS data vs. polling sample

Appendix IV: Additional tables

Table A3: Intent-to-treat (ITT) effects, controlling for additional baseline covariates

	Support exporting gas	Support saving revenues	Support cash dividends	Support social spending	Support for trans- parency	Test of gas knowledge
	(1)	(2)	(3)	(4)	(5)	(6)
	b/se	b/se	b/se	b/se	b/se	b/se
Treatment condition:						
Info. + deliberation	0.266***	-0.042	-0.276***	0.134***	0.156**	0.330***
	(0.066)	(0.064)	(0.062)	(0.037)	(0.076)	(0.051)
Info. only	-0.021	-0.003	-0.009	0.031	0.038	0.126**
	(0.072)	(0.069)	(0.057)	(0.040)	(0.073)	(0.062)
Spillovers	0.035	-0.061	-0.027	0.071*	-0.013	-0.071
	(0.071)	(0.069)	(0.063)	(0.038)	(0.077)	(0.056)
Baseline outcome	0.011	0.072***	0.164***	-0.005	0.080***	0.143***
	(0.022)	(0.023)	(0.026)	(0.004)	(0.025)	(0.023)
Baseline covariates:						
Political knowledge	-0.012	0.047*	-0.045*	-0.027*	-0.048	0.073***
	(0.026)	(0.028)	(0.024)	(0.015)	(0.034)	(0.027)
Per capita consumption	0.034	-0.098**	-0.114**	-0.025	-0.049	0.076**
	(0.049)	(0.042)	(0.047)	(0.026)	(0.052)	(0.035)
Trust in government	-0.028	-0.017	0.019	-0.005	0.024	-0.030
	(0.025)	(0.023)	(0.019)	(0.012)	(0.026)	(0.019)
Male	0.043	-0.051	-0.100**	-0.031	0.114**	0.151***
	(0.046)	(0.051)	(0.039)	(0.025)	(0.052)	(0.042)
Age	-0.002	-0.002	0.001	0.000	0.001	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
For info + delib.:						
BKY (2006) q-value	0.001	0.093	0.001	0.001	0.017	0.001
Obs.	1,857	1,857	1,857	1,857	1,857	1,857

See notes for Table 3 in the main article.

Table **A4**: Intent-to-treat (ITT) effects, without controlling for baseline responses

	Support exporting gas	Support saving revenues	Support cash dividends	Support social spending	Support for trans- parency	Test of gas knowledge
	(1)	(2)	(3)	(4)	(5)	(6)
	b/se	b/se	b/se	b/se	b/se	b/se
Treatment condition:						
Info. + deliberation	0.266***	-0.032	-0.290***	0.130***	0.137*	0.367***
	(0.065)	(0.064)	(0.062)	(0.038)	(0.078)	(0.054)
Info. only	-0.023	0.010	-0.018	0.030	0.018	0.130**
	(0.072)	(0.069)	(0.060)	(0.040)	(0.074)	(0.063)
Spillovers	0.033	-0.053	-0.035	0.069*	-0.032	-0.058
	(0.070)	(0.069)	(0.065)	(0.038)	(0.078)	(0.061)
For info + delib.:						
BKY (2006) q-value	0.001	0.116	0.001	0.001	0.034	0.001
Horowitz-Manski-Lee						
Lower bound	0.21	-0.11	-0.34	0.09	0.08	0.31
Upper bound	0.33	0.04	-0.21	0.16	0.22	0.43
Obs.	1,857	1,857	1,857	1,857	1,857	1,857

See notes for Table 3 in the main article.