Gendered rural labour market and agricultural transformation

Female casual worker, Ruanda. Source: FATE-Team 2015.

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State driven agriculture transformation and rural labour market

- Transition of agriculture (Republic of Rwanda 2000)
- Vision 2020 - Neoliberal development discourse (Ansoms, 2012)
- Investor friendly environment – high economic growth (Booth, 2012)
- Job creation in rural areas (Republic of Rwanda, 2015)
- Small-scale farming is the main source of income (Ansoms, 2017)
- Highest population density in Africa (Huggins, 2014)
- Decrease of land size per household (Ansoms and Rostagno, 2012; Jayne et al., 2014; Pritchard, 2013).

Source: FATE-Team 2015
Access to land per household in Rwanda

- Land size per household has decreased
  - 1980 - 1.2 hectares
  - 2006 - 0.7 hectares
  - 2013 - 0.59 hectares

- Minimum land holding to secure households livelihoods: 0.25 to 0.5 hectares (Holde 2014)
Pushing social transformation through gender sensitive policies

- The government also pushes social transformation through women friendly politics (Burnet, 2011)
- Women’s formal influence before genocide was very limited (Sharlach, 1999)
- With new constitution 2003 led to gender quotas (Bauer and Burnet, 2013)
- In all development polices gender is mainstreamed (Ansoms, 2012)
Agriculture transformation

State
Agriculture and Gender polices

Subsistence oriented agriculture production

Market oriented agriculture production

Rural labour market
Livelihood
Wealth/Wellbeing
Aime of the research

The research elaborates if the ongoing social-economic and environmental transformation leads to smallholder’s wealth and wellbeing and if this development contributes to gender equality.
The three dimension of sustainability
Economical/Agriucltural transformation
Rural Labour Market
Agricultural transformation
Rural Labour Market

Rural Labour Market in the Northern Province of Rwanda

Agriculture Employment
- Self-Employed Farmer
  On a continuum between subsitance and fully commercialized production
- Agribusiness and Market-Oriented Cooperatives
  Skilled labourer
  - Agronomist
  - Technician
  - Accounting
- Contract Farmer
- Service-Based Cooperatives
- Processing Industry
  Unskilled labourer

Non-Agriculture Employment
- Skilled labourer
  - Teacher
  - Nurse
  - Pastor/Priest
  - Government official
- Unskilled labourer
  - Retailer
  - Driver/Rider
  - Security Guard
  - Domestic worker

On-field Casual Workers
Unskilled labourer
Agricultural transformation
Rural Labour Market

Rural Labour Market in the Northern Province of Rwanda

Agriculture Employment

65% Self-Employed Farmer
On a continuum between subsistence and fully commercialized production

Agribusiness and Market-Oriented Cooperatives
- Skilled labourer
  - Agriculturist
  - Technician
  - Accounting

Contract Farmer

Service-Based Cooperatives

Processing Industry
- Unskilled labourer

Non-Agriculture Employment

2% Skilled labourer
- Teacher
- Nurse
- Pastor/Priest
- Government official

Unskilled labourer
- Retailer
- Driver/Rider
- Security Guard
- Domestic worker

15% On-field Casual Workers
Unskilled labourer

6%
Rural Labour Market
Gendered Labour Market

Rural Labour Market in the Northern Province of Rwanda

Agriculture Employment

- Self-Employed Farmer
  - On a continuum between subsistence and fully commercialized production

- Agribusiness and Market-Oriented Cooperatives
  - Skilled labourer
    - Agronomist
    - Technician
    - Accounting

Non-Agriculture Employment

- Skilled labourer
  - Teacher
  - Nurse
  - Pastor/Priest
  - Government official

- Unskilled labourer
  - Retailer
  - Driver/Rider
  - Security guard
  - Domestic worker

Contract-Farmer
Service-Based Cooperatives
Processing Industry

On-field Casual Workers
- Unskilled labourer

Precarious working conditions
- On daily base
- Low wages
- No social security
Agricultural transformation
Land distribution – Average land holding 0.4 h

Rural Labour Market in the Northern Province of Rwanda

Agriculture Employment

- Self-Employed Farmer
  On a continuum between subsistence and fully commercialized production

- Agribusiness and Market-Oriented Cooperatives
  Skilled labourer
  • Agronomist
  • Technician
  • Accounting

- Contract Farmer

- Service-Based Cooperatives

- Processing Industry
  Unskilled labourer

Non-Agriculture Employment

Skilled labourer
- Teacher
- Nurse
- Pastor/Priest
- Government official

Unskilled labourer
- Retailer
- Driver/Rider
- Security Guard
- Domestic worker

On-field Casual Workers
Unskilled labourer

0.5 h

0.1 h
Drivers drivers to do on-field causal work
Logit Model of probability to be employed as on-field casual worker

| Explanatory variables                    | Coef.  | Robust Std. Err. | P>|z| | Marginal effects |
|-----------------------------------------|--------|------------------|----|-----------------|
| **Agriculture production**              |        |                  |    |                 |
| Land                                    | -2.10242 | .5677542         | 0.000 | -0.1940365      |
| Commercialized agriculture production   | -1.33178 | .4906867         | 0.007 | -0.122912       |
| **Geographical location**               |        |                  |    |                 |
| Musanze                                 | -.82545 | .2940083         | 0.005 | -0.0692713      |
| **Social characteristics**              |        |                  |    |                 |
| Household size                          | .120989 | .0517318         | 0.019 | 0.0111663       |
| Marital Status                          | -0.48345 | .2794469         | 0.084 | -0.496674       |
| Education                               | -0.00158 | .276953         | 0.995 | -0.0001456      |
| 9                                       |        |                  |    |                 |
| Gender                                  | 0.553951 | .240281         | 0.021 | 0.0511252       |
| 3                                       |        |                  |    |                 |
| Age                                     | -0.0382 | 0.000956         | 0.000 | 0.0035259       |
| 5                                       |        |                  |    |                 |
Divers drivers to do on-field causal work
Logit Model of probability to be employed as on-field casual worker instead of self-employed farming.

- **Gender:** Women are more likely to do on-field casual work.
- **Age:** Younger people are more likely to do on-field casual work.
- **Household size:** Bigger household are more likely to do on-field casual work.
- **Land:** Households with small access to land are more likely to do on-field casual work.
- **Market-orientation:** More commercialized households are less likely to do on-field casual work.
- **Geographical location:** Households near a economical centre are more likely to do on-field casual work.
Lack of land – on-field casual workers

“I do not have a farm; it is just a small piece of land on which we live. We live in poverty.”

(Annabelle, 40 years old, on-field casual workers)
Access to land to ensure wellbeing
Factors influencing overall well-being of households

> Distribution of and access to land have an impact on smallholders’ subjective well-being
> Respondents who have very little land (less than 0.2 ha) are strongly dissatisfied
> Respondents who have large amount of land (above 0.4 ha) are either satisfied or strongly satisfied
> No gender differences was found with respect of satisfaction level
## Factors influencing overall well-being of households

| Variable                      | dy/dx  | Std. Err. | z      | P>|z|  | [95% Conf.] | Interval |
|-------------------------------|--------|-----------|--------|------|----------------|----------|
| Land size                     | 0.225  | 0.071     | 3.180  | 0.001| 0.0862         | 0.3640   |
| Age Categories                |        |           |        |      |                |          |
| 31-40                          | -0.002 | 0.091     | -0.020 | 0.986| -0.1793        | 0.1762   |
| 41-50                          | 0.004  | 0.096     | 0.040  | 0.970| -0.1855        | 0.1927   |
| 51-60                          | -0.040 | 0.108     | -0.370 | 0.712| -0.2508        | 0.1712   |
| 61-99                          | -0.143 | 0.104     | -1.370 | 0.170| -0.3467        | 0.0610   |
| Sex                           |        |           |        |      |                |          |
| Male                          | 0.078  | 0.075     | 1.040  | 0.299| -0.0691        | 0.2245   |
| Means to Nearest market       |        |           |        |      |                |          |
| Base = Other means            |        |           |        |      |                |          |
| By foot                       | 0.000  | (omitted) |        |      |                |          |
| By vehicle (paid bus)         | 0.035  | 0.151     | 0.230  | 0.816| -0.2608        | 0.3313   |
| Health Insurance              |        |           |        |      |                |          |
| Base = No                     | 0.171  | 0.093     | 1.850  | 0.065| -0.0105        | 0.3527   |
| Worry about having not enough |        |           |        |      |                |          |
| food Base = No                | -0.152 | 0.068     | -2.220 | 0.026| -0.2854        | -0.0178  |
## Factors influencing overall well-being of households

| Variables                                      | dy/dx | Std. Err. | z   | P>|z|   | [95% Conf. Interval] |
|------------------------------------------------|-------|-----------|-----|------|---------------------|
| Land size                                      | 0.225 | 0.071     | 3.180 | 0.001 | 0.0862 - 0.3640     |
| Worry about having not enough food Base = No  | -0.152| 0.068     | -2.220 | 0.026 | -0.2854 - -0.0178   |
Limited access to land

“Yes, it is among the major problems because if you cultivate and don’t even get enough for home consumption, doesn’t that show you that the land size has reduced?”

Adele, farmer, Cyanika

“Parents too have nothing, maybe what was given to them was as a small plot on which to build a house, and not enough land for cultivation.”

Marie, farmer, Kabarima
Economical/Agricultural transformation
On-field casual worker
On-field casual work – wage gap
Household members (above 18 years) as employee

<table>
<thead>
<tr>
<th>Wage for field casual work</th>
<th>Mean</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>735 RWF</td>
<td>90</td>
</tr>
<tr>
<td>Male</td>
<td>885 RWF</td>
<td>71</td>
</tr>
<tr>
<td>Total</td>
<td>801 RWF</td>
<td>161</td>
</tr>
</tbody>
</table>

> Wage gap 150 RWF
On-field casual work – gender wage gap

“When you have a child with you, you are paid less than 700 Rwandan Francs.”

(Rosa, 34 years, Kinigi)

Source: FATE-Team 2015
Economic/Agricultural transformation
Saving options
Choice Experiment
Scenario

The respondents should visualize following situation: You get three different job offers and you have to choose one. All three job offers are for one season but there are different in terms of income, food and savings. The out payment of your savings takes place at the end of season.

<table>
<thead>
<tr>
<th></th>
<th>Job A</th>
<th>Job B</th>
<th>Status Quo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>800</td>
<td>800</td>
<td>1000</td>
</tr>
<tr>
<td>Food</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Saving option</td>
<td>No</td>
<td>Yes (200)</td>
<td>No</td>
</tr>
</tbody>
</table>
State Choice Experiment

Result of the logit model

<table>
<thead>
<tr>
<th></th>
<th>All workers</th>
<th>Casual on-farm</th>
<th>Self employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASC_{SQ}</td>
<td>0.074</td>
<td>-0.847</td>
<td>0.389</td>
</tr>
<tr>
<td></td>
<td>(0.22)</td>
<td>(-1.15)</td>
<td>(0.81)</td>
</tr>
<tr>
<td>Income</td>
<td>3.155**</td>
<td>3.405*</td>
<td>3.932**</td>
</tr>
<tr>
<td></td>
<td>(6.08)</td>
<td>(2.32)</td>
<td>(5.09)</td>
</tr>
<tr>
<td>Food provision</td>
<td>0.595**</td>
<td>0.069</td>
<td>0.990**</td>
</tr>
<tr>
<td></td>
<td>(3.39)</td>
<td>(0.18)</td>
<td>(3.86)</td>
</tr>
<tr>
<td>Saving option</td>
<td>2.762**</td>
<td>2.657**</td>
<td>3.097**</td>
</tr>
<tr>
<td></td>
<td>(10.35)</td>
<td>(3.78)</td>
<td>(8.07)</td>
</tr>
<tr>
<td>Pseudo R2</td>
<td>0.549</td>
<td>0.601</td>
<td>0.567</td>
</tr>
<tr>
<td>n</td>
<td>1,110</td>
<td>177</td>
<td>678</td>
</tr>
</tbody>
</table>

Table ***: Results of conditional logit models
Notes: ASC means alternative-specific constant, z-values in brackets. All estimations with adjusted standard errors taking into account that two respondents share the same household, * p<0.10; * p<0.05; ** p<0.01.
State Choice Experiment

Result

> Likelihood to choose a job increases with increasing income, when food is provided and the employer offers a saving option
> Saving options are more important than the income level and the provision of food
State Choice Experiment

Result

> Likelihood to choose a job increases with increasing income, when food is provided and the employer offers a saving option
> Saving options are more important than the income level and the provision of food
> Women have a stronger preference for saving options than men
Other financial products

Results

> Access to credit is very limited, especially for women
> Women depend on informal institutions (family, village found or informal money lender)

“The main challenge for women comes when we are looking for a loan in the bank! It is hard! We have to give a mortgage and sometime we don’t have one or the husband refuses.”

Beatrice, 35 years, small-scale agribusiness leader.
Social Transformation
Gender division of labour and gender equality discourse
Paid and Unpaid Work – Time-use

Feminization of responsibilities

> Women spend per day on average 3 hours more on unpaid domestic and care work than men.
> Men spend per day on average 1.7 hours more on income generating activities (field work and paid work out-side the farm)
> Women have on average 3 times less leisure time than men
“We go to the field together; when we come back, he cuts firewood for me. The children help in the rest. He goes to the bar and comes back in the evening.”

Zelda, farmer, Kigote
Social norms – Gendered division of labour

“We can do it but we are afraid of being seen by our neighbors, they could think that we suffer or we have been poisoned by our wives.”

Jean, farmer
Kinigi
“If my child comes from school and my wife has gone to do field work, I serve him food and wait with him for his mother. I will do it, but in my neighbourhood there are some people who still have the ideology which says that there are duties for men and for women.”

(Frederic, 28, self-employed farmer)
Gender equality discourse

“Gender equality in my village is very low. You can see it in some households where a man can take a decision without discussing it with his wife. The man calls a truck and sells the Irish potatoes without informing his wife about the quantity they have harvested. You understand that there is no gender equality.”

(Solange, forty-eight years old, self-employed farmer)
Environmental transformation

Source: Bigler Christine 2016
Livelihood shocks

> Household were affected negatively though environmental events

Figure 5. Livelihood shock during the last 12 months
“Some of them have grown up in a good environment when agriculture was performing well but with consequences of the climate change, the good harvest is not regular.”

Simon, farmer

Kigote
“I think that this season our work didn’t go well because we had so many problems like that of the coming of the hail storms and the soil erosion - now we are doing badly.”

Anysie, farmer
Gakenke
Environmental change
Soil erosion

“It’s just like 10 years ago, before erosion washed our soil, people used to cultivate and you wouldn’t find any problem, even without fertilizers.”

Theo, farmer
Mugandu
Access to seeds and fertilizer

![Bar chart showing the number of households using inputs (n=553).]

- Limited access to quality seeds and fertilizer as a major constrain
- Reduced soil fertility – missing of fallow land
“Potatoes are no longer giving good yield, soil has become infertile, we no longer have adapted seeds, and this is not related to potatoes only but also to maize and beans.”

Rachel, farmer, Kigote

“The last time we skipped seasons was in 1985; I think if we could skip seasons, our harvest would increase.”

Leonard, farmer, Kanaba
“Thinking about the last seasons, before the soil becomes infertile, the yield was good and we were having no problem to feed our family and sometimes to sell. Now we do not have enough production even for food consumption, though we have cultivated.”

Louis, farmer

Cyaika
Conclusion

- There is a social-economical and environmental transformation going on
- Social transformation is slower than the economical/agricultural transformation
Conclusion – Economical Transformation

- Gender and land shapes the rural labour market
- Lack of land pushes young people out of self-employed agriculture
- In low-income generating activities are women (on-field casual work) overrepresented
- Wage gender gap for on-field casual worker
- Care work is a penalty to find paid employment
- Access to land is linked to households’ wellbeing
- Access to finance/savings is crucial for rural wage workers
- Women have a stronger preference for saving options than men
Conclusion – Social transformation

> Rwanda is one of the most progressive countries in the world regarding official policy goals on gender equality
> There is a gap between the national and grass-root level
> Gender equality is linked to women’s economic empowerment and not to share to households duty equality between women and men
Conclusion – Environmental transformation

- Environmental transformation has an impact on smallholder’s livelihood and food security
- Land size is decreasing
- Small access to land is one of the major problems in rural areas
- Climate change and decreasing soil fertility has an negative impact on crop output
Thank you for your attendance