



# Opportunities and Challenges in Biofuels development

“voices of women”

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# Overview of the Presentation

- Introduction
- Conceptual overview
- Why a gender perspective
- Findings from the field
  - Challenges & opportunities
- Conclusions



# Acknowledgement

- I speak for many women and men from fieldwork across the nation - whose wisdom I am relying on
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# Conceptual overview

- Biofuels – organic primary and/or secondary fuels derived from biomass which can be used for the generation of thermal energy by combustion or other technologies
- They comprise both purpose-grown energy crops as well as multipurpose and byproducts (residue & wastes) FAO, 2000
- **Focus: 2 types of liquid biofuels produced from purpose-grown crops**
- **(bioethanol & Biodiesel)**

# Conceptual overview

## Common understanding of women

### Biofuels –

“purpose-grown crop with high market potential that can produce fuel to power cars and machines”

(translated from women from the field work)

# Introduction

- Biofuels has generated vigorous debates:
    - Economic
    - Social
    - Environmental grounds
  - The issue of biofuels is with us to stay
  - The potential is large:
    - Employment opportunities
    - Wider growth multipliers & Energy price effects
- ❖ **Yet it is also fragile**

# Fragility of Biofuels development

- However, it is also being argued that capturing the full potential would require:
  - overcoming potential conflicts between bioenergy production and the protection of the environment,
  - sustainable development, and food security of the rural poor (WEC, 2007)

# Key Challenge

## Studies are illustrating:

- Track inputs at global or national level
- Distributional impacts' are complex and point to need for In-depth understanding of country by country analysis or context specific analysis
- Especially understanding the challenges and opportunities

# Why Gender?

As South Africa moves towards the realization of the biofuels industry, considerable impacts may arise in the creation of a biofuels system.

- It will be important to consider how these impacts will affect, differently women and men, in terms of:
  - participation,
  - power relations in the household and market,
  - labour input versus the benefits,
  - household relations, decision making, and the choices they make in investment, technology and

# Why women?

- Majority are engaged in crop production – small-scale agriculture
- Women have the will for accomplishment
- Women are determined and committed and usually – outpace their limits
- Women in most cases get more involved than men in projects and programmes
- Adapt easily to new ideas see opportunities and challenges that are interlinked to family and community concerns

# Case: women Voices

## Objectives of study:

- The type of crops women are growing that could be considered for the biofuels industry
- Assessment of crops grown in South Africa that are potentials for biofuels and
- the suitability of these crops
- The major technologies that women are using
- Key challenges women face that would impede their effective participation in the biofuels industry
- Opportunities

# Overview of Findings

- October 2007 and December 2007
- In total 253 women were interviewed
- of National African Farmers Union of South Africa, NAFU
- WARD

# findings

- **What women have heard**
- **Crops will be used to make diesel for vehicles**
- **Diesel will be no more and the alternative will be to get it from crops**
- **You can make a lot of money from growing crops to make diesel**
- **People from abroad are coming to South Africa to buy crops that make diesel**
- **You need a lot of water to grow biofuels**
- **This fuel can also be used to make soap and provide light for the households**
- **There are already other farms making this diesel and even selling to other farmers**
- **The government is going to give a lot of money to anyone who will sell their crops to make this diesel from crops**
- **Can be used as environmental friendly fuels**

# Ranking of Sources

- Husband, Family (1)
- Radio (2)
- Community meeting and other women (3)
- Church meeting (4)
- NafuSA conference (5)
- Ward Meeting (6)
- Farmers Day (7)
- Television (8)
- Extension staff (9)

# Food security Vs Biofuels as an option

- The linkage in terms of message flow was clearly the following:
- **Crop = converted to biofuels =high monetary profits**
- **Food security Vs Biofuels as an option**
- the 98 women, 95 claimed they would abandon growing maize, or any other crops for food.
- primary motivation for biofuels production is to create sustainable income.

# Key resource issues

- Land
- Water
- Finance
- Human resource – skills
- Technologies
- infrastructure

# Land issue and biofuels

- land is central to women
- Has multiple value and meaning to women
- Creates autonomy
- Self esteem
- It can be used to negotiate to get other resources
- Security for them and their children
- It is part of who they are – some of their ancestors are buried on the land they live on
- It is a source of income, food, fuel, water and medicines (in some cases)
- It is what they fall back on when they have lost jobs, or divorced

<b>Type of land</b>	<b>Comment on land right</b>
Tribal/communal	Land rights mediated through male members
Missionary	Land right through church leadership, who is mostly male
Schools	Land right through church leadership, who is mostly male
Commercial farms	Land rights in control by the landowner
municipal	<p>Land right in control by government but its procurement processes need male in most cases to assist</p> <p>Usually given to a group of women to share given hectareage</p>
Individual Ownership	Most household male members have right of ownership of land and women go through male members to acquire right to land

# Concerns: Women land and Biofuels

- Women explained that access, and user rights to land are changing very slowly for them to engage effectively in production and thus, the mainstream economy.
- One factor that there must change in land allocation arrangements.
- Women said that access and right to land is controlled mostly by male members of the family. Even now in 2007,
- with government land reform programmes, they are still treated the same way as the traditional law, were men are having the upper hand around access.
- Women could not understand the rationale of municipalities around group allocation of land.

# Small plots vs. Large plots

Type of Plots	number
Smaller plots	15
Larger plots	83
Total number	98

# Land allocation and negotiations

- Conflict on labour Vs rights and allocation
- The women see government move, as geared only to appease a certain grouping in society (landowners) and does not take account of women relationships within their household and communities. If they did the decisions would be different.
- Regarding taking cognizant of their household structures Some households are well resourced and therefore it is easier for those women to execute responsibilities in their household and makes them have more time for group farming, while for some this is not be the case.

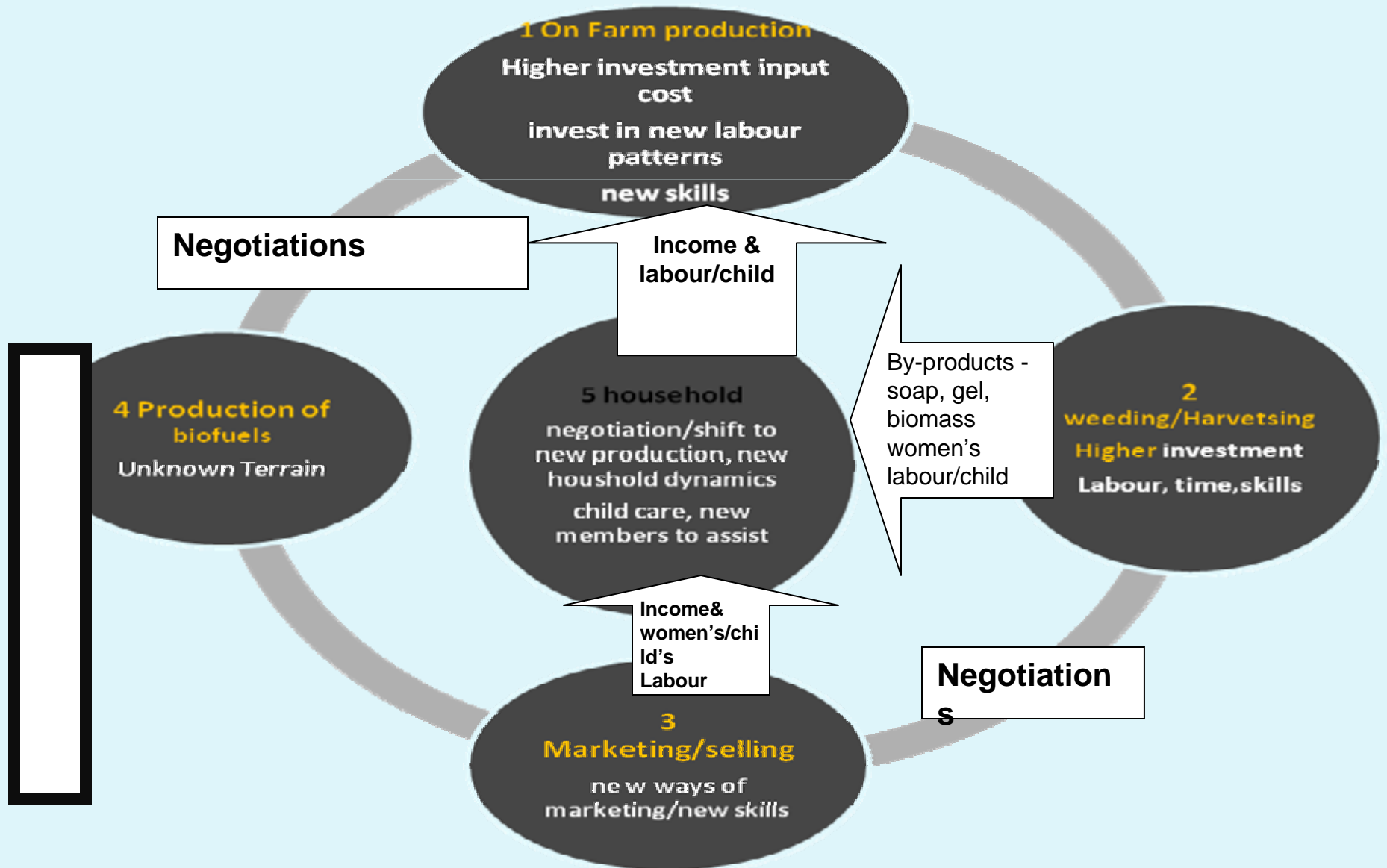
# Agricultural activities

- Crop production = Female activity
- Livestock farming = Male activity

Type of agric activity	Number of women
Crop production	181
Livestock	22
Crop production & Livestock	6

Type of agric activity	Number of men
Crop production	6
Livestock	37
Crop production & Livestock	7

# Cycle: Gendered negotiation process of biofuels production



# Shift in to biofuels production is shift in gendered labour patterns

- Shift in crop production in any form whether from household consumption to cash crop, or the same cash crop to intensive production requires a process of negotiation for the women
- **Negotiations begin within the households and the negotiation are:**
  - around shift in income,
  - labour and finding new methods and ways to sustain the new idea
  - the negotiations do not end at the household level but continue into the field production area (planting, weeding, etc).

# Negotiations

- **Household**: shift in new production in a household requires a change in many things in the household.
  - Assure funding and profits
  - One has to negotiate with the husband, and other members of the family – it does not matter if the husband works somewhere in the city.
  - The other major negotiation issue is labour input, who will do what job to shift to new production requires a women to think how to distribute household labour,

# Negotiations

- **Fieldwork (preparing the land, weeding, harvesting & processing)**
- Negotiation at field level is dependent on a number of issues the main issue:
  - manage your labour between domestic work and production and get assistance to do the multiple work required
  - **New standards, requirement need more care. To them new production methods involves more labour, and this may improve as time goes on. These day other risks many cause more labour input – floods, pests, and other unknown threats.**

## Negotiations/change in relation

- **Marketing (selling)**
- When one enters the terrain of marketing it would be new knowledge of whom to sell the crop to, the crop prices, and many other details.
- Also what was emerging is the problem of child care, especially that most of the young girls were getting pregnant at an early age and had less skills of child care, therefore the responsibility falls on the mother, grandmother or younger siblings.

# Black box

- When assessing challenges women feel it is not such a problem to deal with 1, & 2, the critical issue in these spaces is how to negotiate labour to compete productively.
- However, the women feel strongly that there is a black box in the biofuels production and that is the area of what happens to their products
- How much is being made there, are they benefiting fairly, and how do they compete in the black box terrain.

# Invisible box

- The invisible box is the area unknown terrain for women in terms of gendered negotiations
- The women know how to negotiate terrain 1, 2 & 3 to some extent
- More effort must be made for women to enter the invisible box it – it is the one where the profit is made
- Lack of knowledge of invisible box affects (will affect) the participation, profitability and production outputs for women for the whole cycle
- From the above figure derived from fieldwork, it was clear that as much as women oppression in gender analysis is situated in the household, especially in peasant household agriculture and within reproductive relations (opposed to production)
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# Cycle of biofuels

- This same oppression is replicated in production outside the household, in the field.
- There is unequal division of labour with older women doing most of the reproductive and productive work and women and their children in general engaged in more work.
- The women explained that most of the men were in cities and the farm plots are run by the women and if they are around not working in the city, there are in the villages and do not contribute much in the farm work.
- The women explained also the factor that if they have lost jobs due to retrenchment, they are depressed and contribute less to productive activities of the household.

# Envisaged benefits of biofuels industry

Women expectations are positive towards the biofuels industry.



<u>Households:</u>	<u>On farm labour/production</u>	<u>Marketing</u>	<u>Production</u>
<ul style="list-style-type: none"> <li>-Shift in power to women in relations – which would make negotiations easy if the projects succeeds well</li> <li>- create new awareness and skills for entire families</li> <li>-create a new source of income</li> <li>-improve family labour relationship</li> <li>Create employment</li> </ul>	<ul style="list-style-type: none"> <li>- Use of new technologies and innovation for new biofuels crops</li> <li>- benefit from by-products of biofuels</li> <li>- New ways of doing things</li> <li>-creation of new relationships around biofuels</li> <li>-exposure to new ideas and people</li> </ul>	<ul style="list-style-type: none"> <li>-increased income</li> <li>- improved relationship</li> <li>-learn new marketing skills</li> </ul>	<ul style="list-style-type: none"> <li>-Provide new jobs</li> <li>-new products</li> <li>- improve relationship</li> </ul>

# Principle of Biofuels

**The women principles for sustainable biofuels production indicators as explained by the discussants would be indicators that are:**

- easy to explain, in line with their day-to-day life style
- Must be principles well in line with the knowledge they know
- They stated that, “if we say a project was sustainable, they must have a measure that is easy to explain and should not take so much time to analyze or involve a lot of questions
- The issue of how water is utilized is important because of the problems must farmers face;

# Sustainable biofuels project

- The question of labour we put in into the project must match the output economic output or otherwise the project would be too labour intensive and we spend all our time in the field than with the families, the women explained;
- The project must give back in monetary terms or otherwise to compensate for the labour. For example would it make it easy for us to use the same biofuels for the household, for soap and other necessities needed by the household;
- It should be also a production were finance and markets are easily accessible

# Sustainable programmes

- It should also not be production were half way they tell you, you have not followed the laid down rules, rules must be clear it was discussed;
- We have families of people who do not work because they have lost jobs; the biofuels production must assist to do this (especially for the men and youth) that creates a lot of problems if they do not do anything, the women states;
- Also the production must not only make women suppliers of feedstock but owners of production companies.
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**The women when asked to prioritize crops they would engage with for biofuels, they listed the following crops**

<b>Crop</b>	<b>comment</b>
<b>Maize</b>	<b>Used to the crop, it production methods, pest control and other ways of weeding and care</b>
<b>soybeans</b>	<b>Used to it and grows in all areas fairly well</b>
<b>groundnuts</b>	
<b>Sorghum/ sweet sorghum</b>	<b>Has multiple uses</b>
<b>Sunflower</b>	<b>Water is a problem, for this crop</b>
<b>Other crops</b>	<b>Though most of the women had tried other crops, a majority of them felt they need more information and better cultivar to try out the other crops</b>

## Extending the frontier

- When asked to comment on Jatropha, Moringa and elephant grass, the women explained their lack of knowledge around these crops
- Need knowledge on how to grow them

**Thank you for  
listening !!!!**

