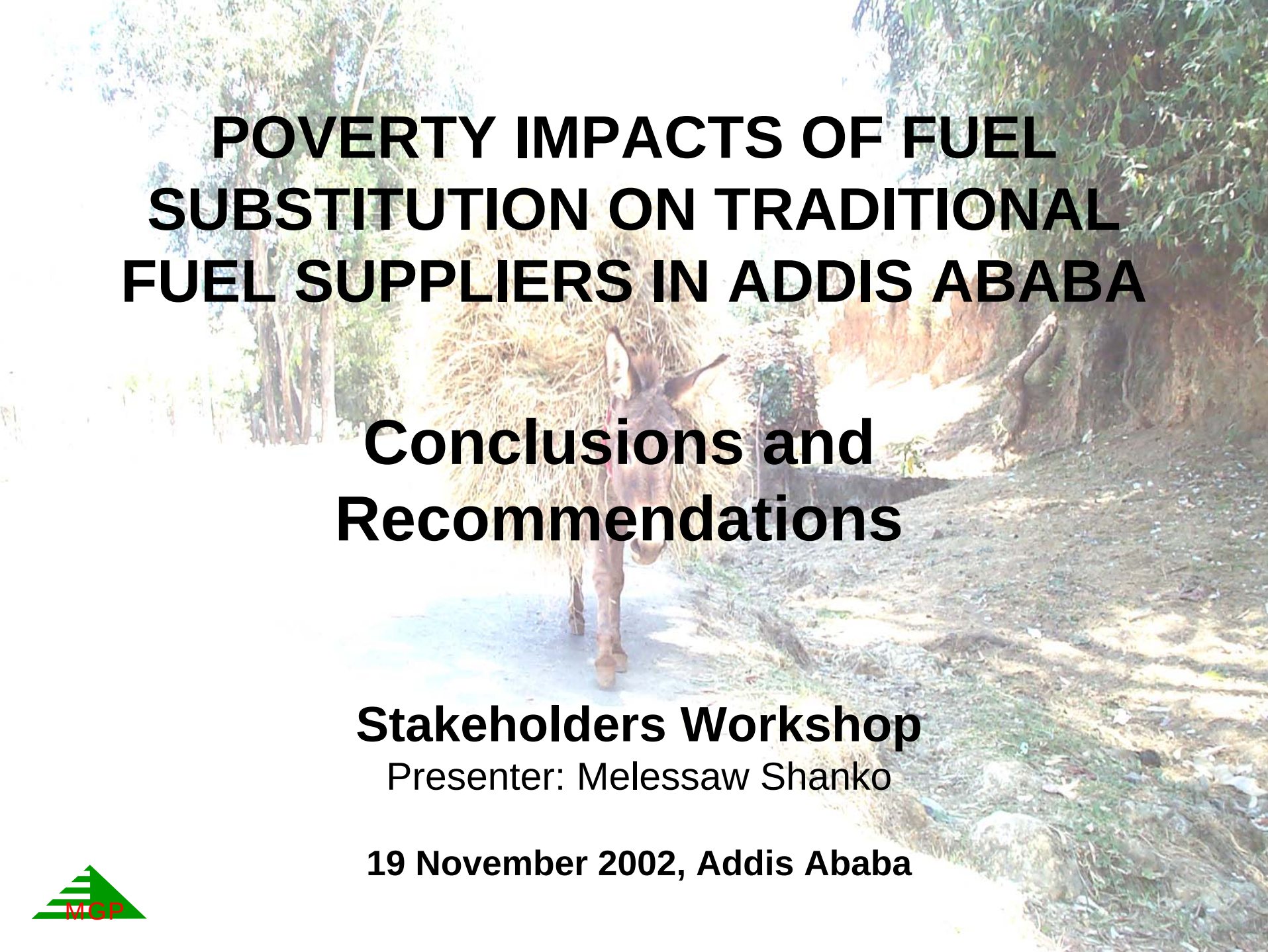

POVERTY IMPACTS OF FUEL SUBSTITUTION ON TRADITIONAL FUEL SUPPLIERS IN ADDIS ABABA

Conclusions and Recommendations

Stakeholders Workshop

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Vulnerability Context
External Shocks and Trends

These are external factors over which people have little control

Seasonal Factors

- Charcoal supply is usually low during rainy season & prices are high
- Low consumption during the dry season
- Extreme drudgery and hardship during rainy season

Technological Trends

- Trends towards motorised transport – reducing opportunities for non-motorised suppliers
- Trends towards modern fuels & appliances

Market Trends

- Opportunistic behaviour of consumers in relation to price and supply,
- Graduation of consumers on the energy “ladder”
- Easy entry, many suppliers “cut-throat” competition

Depletion of Biomass Resources

- Increasing distance to supply sources
- Increasing time and effort to collect

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Vulnerability Context
Policies and Institutions

Policies and Institutions: As sources of vulnerability

Restrictions on production and transport of wood & charcoal

- Shortage of TF supplies, unreliable supplies
  Potential for harassment and bribery.
  Poor quality fuel (adulteration) and hence lower prices

Fuel Substitution

- Consumer shift from TF to modern fuels (Kerosene and electricity)
- Improved stove programmes = reduced demand for TF.

Non-recognition of TF sector

- Lack of institutional support mechanisms
- Low bargaining power, low status occupation
- Grossly negative official attitude towards the sector
- No credit facilities are available
- Lack of storage facilities – journeys more frequent
- Lack of business premises (physical space) = corrupt practices

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Vulnerability Context Transporters

Problems Encountered

- Bribes-Confiscation; Physical assault-Robbery-Rape,
- Hard work/Drudgery,
- Scarce supply-Seasonality and Unsafe Working conditions,
- Gender Variation: Those who identified unsafe working conditions are all female; relatively larger proportion of female reported physical abuse-assault,
- Suppliers did not report marketing aspects; their focus is on supply side problems (which has important implication for vulnerability and mitigation measures

Problems Stated	Gender			Percent of:		
	Female	Male	Total	Female	Male	Total
Bribes / Confisication	11	9	20	14%	19%	16%
Scarce Supply / Seasonality	1	4	5	1%	8%	4%
Hard Work / Drudgery	10	5	15	13%	10%	12%
Unsafe Working Conditions	5	0	5	6%	0%	4%
Physical Assault / Robbery / R	15	5	20	19%	10%	16%
Not Stated	36	25	61	46%	52%	48%
Total	78	48	126	100%	100%	100%

Vulnerability Context Transporters

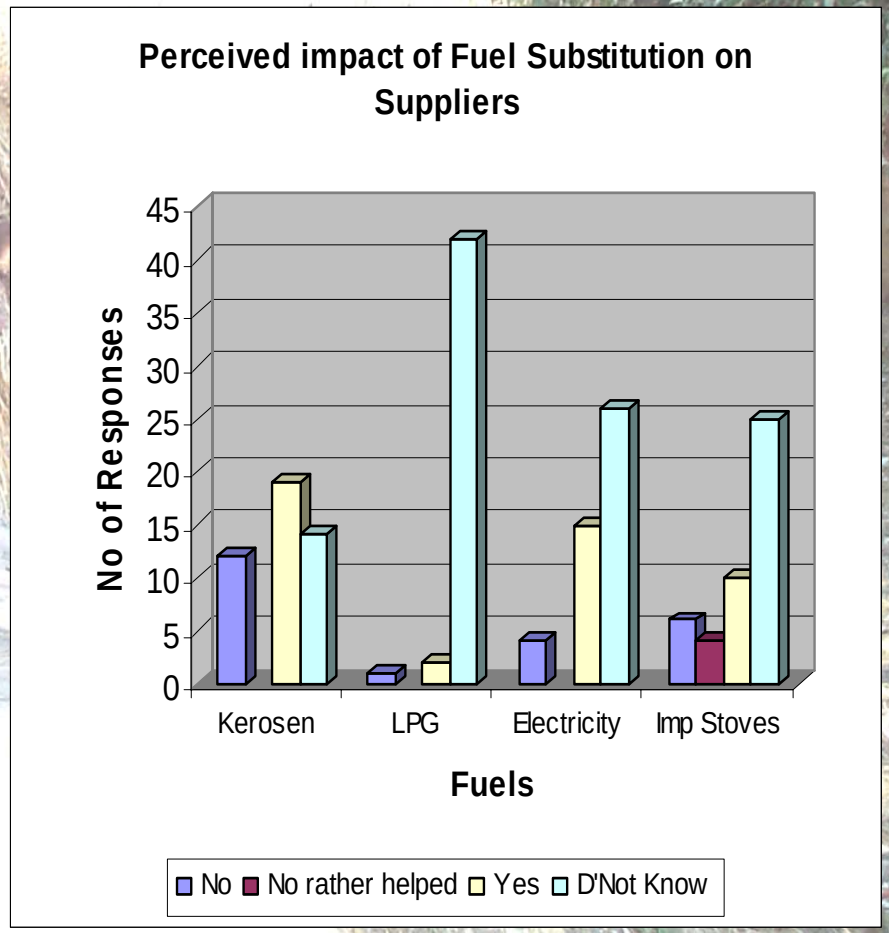
Perceptions about Impacts of Substitution

KEROSENE

31% of fuel suppliers indicated no knowledge about the effects of kerosene; 27% felt that kerosene has had negative effects, and 42 % no negative effects

The majority of female (54%) than male (24%) suppliers indicated that kerosene has negative impact. Within the female category the majority of urban than rural women suppliers perceived the negative impact of kerosene

LPG: The overwhelming majority of fuel suppliers (93%) indicated no knowledge about the effects of LPG



Vulnerability Context Transporters

Perceptions about Impacts of Substitution (continued)

ELECTRICITY

- Unlike LPG, a more pronounced perception about the effects of electricity
- 33% of the fuel suppliers thought that electricity has a negative impact on biomass fuel supply
- 50% of women fuel suppliers, all of whom are urban based felt that electricity has a negative impact on biomass fuel supply.

EFFICIENT STOVES

- 22% of fuel suppliers said that improved stoves have negative impact; 56% reported no knowledge
- A small proportion of fuel suppliers (9%), improved stoves, in fact, have positive effects on biomass supply. The explanation is related to the dynamics of demand-supply and price fluctuation. The partial liberalization of electricity tariffs (and the introduction of “mirte” enjera metad) has led to a switch back to biomass fuels.

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Vulnerability Context Vendors

Problems Encountered:

- Poor health, harassment, lack of shelter, low/seasonality of demand, and lack of capital are major problems.
- Female vendors suffer disproportionately from lack of space and capital

Problems	Gender			Percent
	Female	Male	Total	
Poor health	19	8	27	15%
Harrassment/Bribes/C	13	7	20	11%
Lack of Shelter/Space	18	1	19	11%
Low demand	10	3	13	7%
Seasonality	6	6	12	7%
Lack of Capital	9	0	9	5%
Competition	4	3	7	4%
Hard Work	5	1	6	3%
Not Stated	54	13	67	37%
Total	**138**	**42**	**180**	**100%**
Percent	**77%**	**23%**	**100%**	

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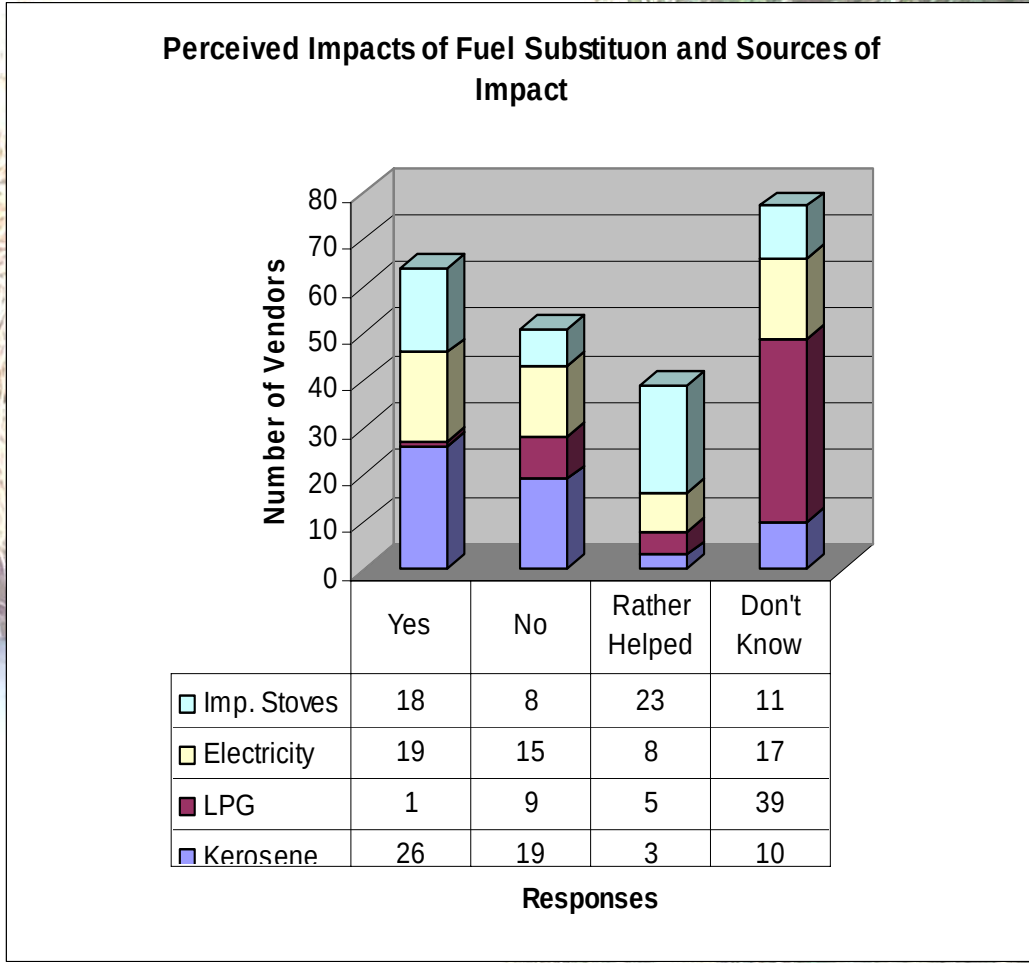
Vulnerability Context
Vendors

Perceived Impacts of Fuel Substitution

- Kerosene, Electricity and Improved Stoves had had Negative Impacts
- Significant Number of them suggested that Improved Stoves have rather had positive impacts
- Much is not known about LPG impacts as it is not a fuel for the majority



Vulnerability Context
Vendors

Strategies Adopted to Overcome the Problems:

- Majority have faced various problems
- More than 50% did nothing
- 12% quit the job for a while
- Payment of bribes and temporarily change to other jobs were other options chosen

From Case Studies

- TF suppliers rely on informal networks (relatives, friends, community associations) to cope with problems associated with their occupation

Strategies	Gender			
	Female	Male	Total	%
Nothing	24	9	33	55%
Quit	5	2	7	12%
Bribe Authoritie	4	0	4	7%
Change Busine	3	1	4	7%
Groups	2	0	2	3%
Borrow Money	1	0	1	2%
No Problem	7	2	9	15%
Total	**46**	**14**	**60**	**100%**
% Reporting P	**85%**	**86%**	**85%**	

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Conclusions

Traditional Biomass Fuel Supply:
'a business that will not go away'

- Regardless of fuel substitution measures, people will continue to use wood and charcoal
- Many people will continue to be employed in this sector
- Sustainability and improvement of this important sector can be achieved through well-informed policy measures
- Even with sustainable biomass production, employment in this sector will continue to be characterised by vulnerability and negative gender impacts.

Conclusions

- Establishing a clear link between fuel substitution and livelihood circumstances has proved difficult;
- However in each country biomass suppliers recognised changes in the traditional fuel market, which they believe related to fuel substitution measures;
- In Ethiopia the introduction of subsidised kerosene and electricity has directly competed with BLT as the preferred fuel for the preparation of the traditional enjera baking;
- However, the trend has not been uniform because of changes in policy resulting in gradual removal of subsidy on :modern" fuels, e.g., electricity
- Insecurity and unreliability of TF supplies has been a source of opportunistic behaviour among consumers and hence, vulnerability to suppliers

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Conclusions

- Fuel substitution measures intended to reduce the negative impacts of traditional biomass fuels have their own inherent disadvantages;
- While it is an important policy objective to improve access to modern fuels, the negative effects of large scale interventions must be considered by policy makers and measures taken to mitigate these effects;
- The needs of consumers have to be balanced with the livelihood requirements of the vast number of people employed in the traditional fuel sector.

Evaluation of Available Options

Options	Indicators			
	Health	**Environment**	**Sustainable Economy**	**Social**
Set up & Appliances • Improved ventilation • Chimneys & hoods • Improved stoves	• Reduced indoor air pollution • Reduced drudgery. • Etc, …..	• Reduced deforestation	• Additional employment opportunities.	• Reduced energy expenditure, • Improved health • Employment opportunities, but might impact on TF suppliers
Fuel Substitution • LPG • Kerosene • Electricity	• Improved health, reduced smoke …	• Reduced deforestation, • BUT potential for adverse impacts on climate due to fossil fuels	• Increased foreign exchange requirements, • Increased dependence and energy insecurity	• Negative impacts on TF suppliers, • Improved quality of life for consumers who can afford
Supply Management • Sustainable woodlots • Sustainable charcoal	• Negative health impacts, • BUT, can be mitigated by improving appliance	• Positive environmental impacts, • Indigenous resource	• Source of revenue, • Reduced dependence on imported fuels, • Less Forex	• More secure source of livelihood for TF suppliers, if access improved • Expanded employment opportunities

Recommendations

What can be done to reduce Vulnerability?

Enhancing livelihood assets

Assets	Improvements	Vulnerability impacts
Financial	• Increased income • Ability to save • Access to credit	• Credit may allow purchase of labour-saving aids, e.g. donkey, vehicle, etc. • Savings can support household in times of low supply & demand.
Physical	• Storage space • Designated selling areas	•Less frequent journeys •Storage for times of shortage •Less scope for harassment for lack of licence
Social	•Business networks •Community groups •Suppliers organization	•Collective bargaining power re: prices and quality of wood & charcoal •Improved security (collection in groups) •Shared resources, e.g. vehicles
Human	•Education •Training	•Training will increase opportunities to pursue alternatives in times of low supply & demand, or when modern fuels replace traditional fuels.
Natural	•Plantations •Sustainable production	•Shortage becomes less of an issue •Improved image of traditional fuel suppliers

Recommendations

What can be done to reduce Vulnerability?
Policy and Institutional Changes Needed

Policy (examples)	How/Why
Rationalize the Production and Transport of Traditional Fuels: •Remove institutional barriers •Open up and facilitate private ownership	•Improve access to and management of existing plantations by suppliers through participatory methods •Expand sustainable peri urban plantations through private, cooperative and public ownership •Introduce/promote intermediate means of transport to reduce drudgery and supply inefficiencies •Establish an institution with clear mandates to guide the development and rationalization of the sector
Remove Subsidies on "Modern" Fuels	•To reduce the vulnerability of TF suppliers •To remove market price distortions •To reduce forex expenditure •To reduce dependence on imported fuel
Recognition of TF sector : •Major Employer of the poor •Sustainable, Indigenous •Affordable, Major source of HHE	•Light-handed (hands-off) regulation, but with licensing?? •Provide space for storage and marketing •Improve access to credit facilities •Organize suppliers in to associations and cooperatives and allow them to own and manage existing plantations and develop new ones