

RESULTS OF INFLOW SURVEYS AND SUPPLIER INTERVIEWS

1. Biomass Inflow Surveys
2. Suppliers Interviews
 - Vendors
 - Non-motorized Suppliers
 - Motorized Suppliers

Methodological Issues

- Purpose: Understand suppliers profile for detailed poverty impact study.
- Methods:
 - Inflow surveys on 5 major roads
 - Supplier Interviews:
 - Non Motorized Suppliers (42)
 - Vendors (40)
 - Motorized (20)

Biomass Inflow by Major Roads and Carriers

- Donkeys (34%) followed by women (19%) major carriers
- In terms of head count, motorized transport of biomass constitutes 33% of the total
- Gojam road (34%) followed by D. Zeit (23%) are major inflow routes
- Least important is Jima road

Carrier	Inflow Roads							
	Ambo	Gojam	Entoto	Jima	Asmara	D. Zeit	Total	%
Bus	66	106	1	46	144	448	811	9
Donkey	673	1,261	303	460	553	3	3,253	34
Women	249	906	439	66	195	-	1,855	19
Private Car	20	35	-	20	43	108	226	2
Men	89	502	68	12	72	-	743	8
Mini Bus	80	204	4	35	184	59	566	6
Part Load Lorry	55	151	7	40	67	779	1,099	12
Part Load Pick up	23	36	9	2	19	558	647	7
Dedicated Pick up	1	48	3	11	37	212	312	3
Samll Taxi	2	1	-	2	-	2	7	0
Total	1,258	3,250	834	694	1,314	2,169	9,519	100
%	13	34	9	7	14	23	100	

Types of Biomass Fuels by Carriers

Carrier	Wood	BLT	Charcoal	Dung	Other	Total	%
Donkey	1,495	1,277	332	96	53	3,253	34
Women	523	1,077	70	158	27	1,855	19
Part Load Lorry	358	21	603		117	1,099	12
Bus	211	15	540	2	43	811	9
Men	362	153	146	60	21	742	8
Part Load Pick	216	3	405		23	647	7
Mini Bus	138	111	258	3	56	566	6
Dedicated Pick	145	4	153		10	312	3
Private Car	65	1	153		4	223	2
Small Taxi	5		2			7	0
Total	3,518	2,666	2,662	319	354	9,519	100
%	37	28	28	3	4	100	

- Wood (37%) closely followed by BLT (28%) and Charcoal (28%) are major fuels
- Donkeys 34% and Women 19%
- Total Non-motorized inflow 61%

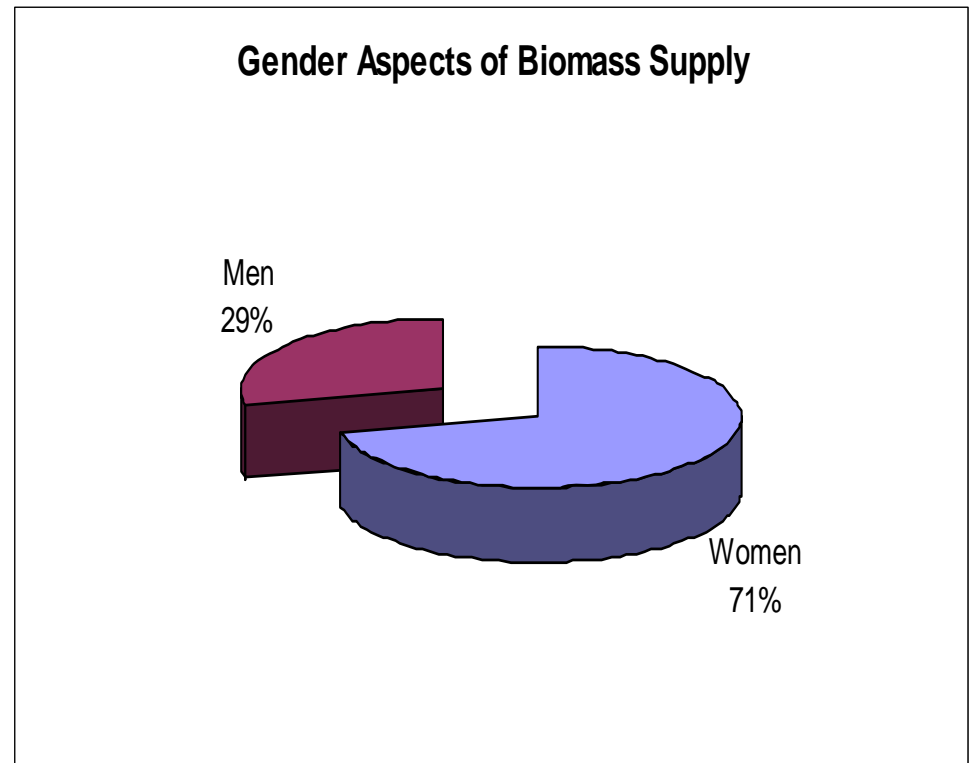
Inflow of Biomass Fuels by Roads

Roads	Wood	BLT	Charcoal	Dung	Other	Total	%
Gojam	1270	1365	412	165	43	3255	34
D. Zeit	606	0	1416		160	2182	23
Asmara	450	478	313	10	60	1311	14
Ambo	486	468	249	32	22	1257	13
Entoto	384	297	40	111	2	834	9
Jima	322	58	246	1	67	694	7
Total	3518	2666	2676	319	354	9533	100
%	37	28	28	3	4	100	

- Gojam Road is most important route for wood, BLT & Dung inflow
- Debre Zeit is important for charcoal and 'other' (wood/charcoal) combo.

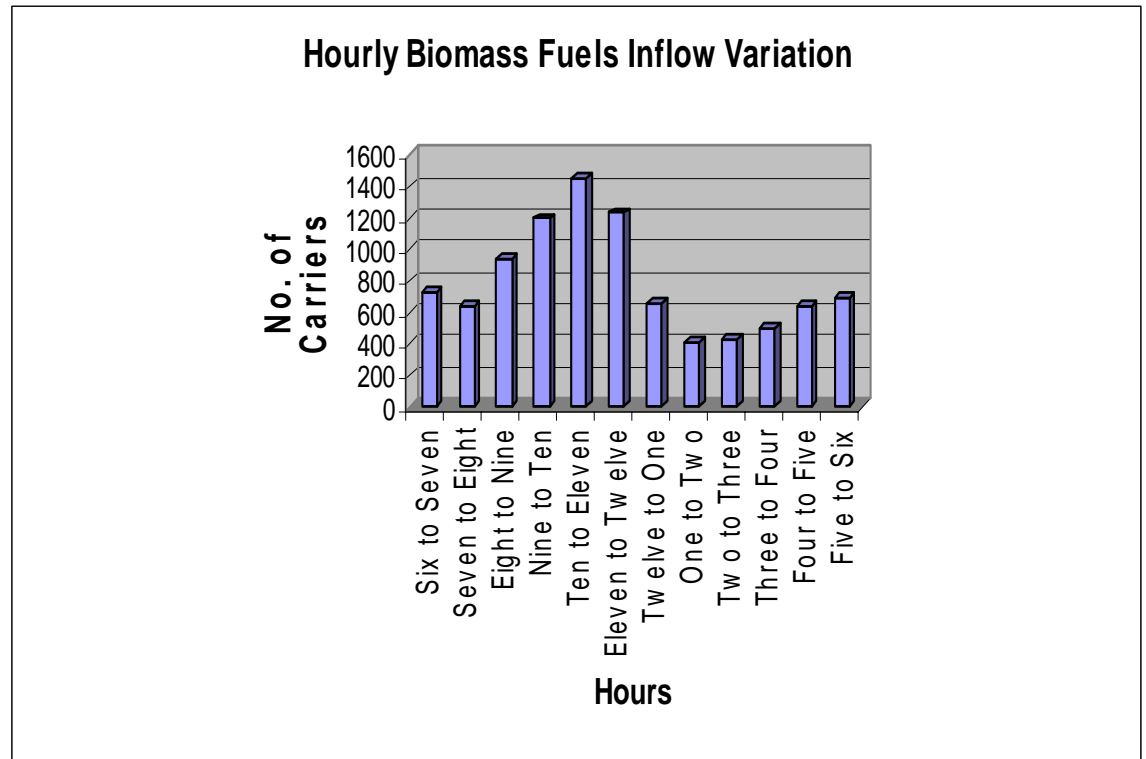
The Role of Women in Traditional Fuels Supply

- In terms of head count human carriers constitute 27% of the total
- Out of the total human carriers women constitute the majority (over 70%)



Biomass Inflow Hourly Variation

- At peak hour (10:00 am to 11:00 am) over 1400 carriers enter the city in one hour



PROFILE OF VENDORS AND TRANSPORTERS

Profile of Vendors

Profile ... Vendors

- Sample size 42 interviews
- Female 69% and male 31%

Roads	Sex		Total
	Female	Male	
Ambo	8	3	11
Entoto	11	5	16
Kotebe	10	5	15
Total	29	13	42
%	69	31	100

Types of Fuels and Markets

- Fuels:
 - Wood
 - Chacoal
 - BLT
 - Combination
- Markets:
 - Depot owners
 - Retailers
 - Gulit
 - Peddelers

Fuels	Total	Type of Market	Total
BLT	7	Depot	5
Charcoal	9	Gulit	17
Combination	11	Peddle	1
Other	1	Retail	19
Wood	14	Grand Total	42
Grand Total	42		

Profile of Vendors

By Mode & Frequency of Acquisition

- 90% of vendors acquire from merchants and producers
- Vendors obtain supplies frequently in small quantities

Mode of Acquisition	Total	Frequency of Acquisition	Total
Merchant	22	Daily	10
Producer	16	More than Once/Week	16
Self Collected	4	Weekly	8
Grand Total	42	Other	8
		Grand Total	42

Profile of Vendors

By Additional Income & Years in Business

- The Majority of vendors Do NOT have additional sources of income
- Close to 80% were in business for less than 5 years

Additional Source of Income?	Female	Male	Total
No	26	11	37
Yes	3	1	4
Total	29	12	41
Years in Business	Number		
< 1 Year	13		
1-5 Years	20		
5-10 Years	6		
>10 Years	3		
Total	42		

Profile of Vendors ...

Reasons for Engaging in Biomass Trade

- The main reason for joining the biomass industry is lack of alternative employment

No Alternative	34
Family Business	2
Pays Well	1
Other	5
Total	42

PROFILE OF SUPPLIERS

Non-Motorized Suppliers

Non-Motorized Suppliers

By Road, Gender and Means of Transport

Road	Number
Ambo	10
Belay Zeleke	10
Jima	11
Kotebe	9
Grand Total	40
Sex	
Female	15
Male	25
Grand Total	40
Carrier	
Donkey	24
Donkey Cart	1
Human Load	15
Grand Total	40

- Even distribution among roads
- More male respondents than women due to reluctance of women to be interviewed
- Donkeys and human load main means of non-motorized transport

Non-Motorized Suppliers Profile ...

By Fuel Types and Mode of Acquisition

Types of Fuels	Number
Wood	14
BLT	10
Charcoal	11
Other	4
Total	39
Mode of Acquisition	
Produced	23
Collection	10
Purchase	7
Total	40

- All major fuels except cow dung are represented
- The majority (50%+) of non-motorized suppliers are also producers of the fuels
- Only about 18% of them purchase fuels to resell

Non-Motorized Suppliers Profile ...

Sources (Places) of Supply and Estimated Distance

Places of Origin of Supply	Number	Kms. I
Abada	1	na
Burayu	2	30
Fiche	2	115
Kara	3	25
Kara Kore	1	30
Kare	1	na
Kela	3	15
Kersa	1	na
Korke	9	na
Mizan	1	na
Mulo (Muger Area)	2	60
Sendafa	1	40
Tafo	1	30
Total	1	10
Welmera	3	35
Woleya	1	na
Woserbi	5	30
Not Stated	2	
Grand Total	40	

- Non motorized suppliers travel up to 40 kms (one way) with with average estimated load of 4okgs (donkeys) and 25 kgs (humans)

Non-Motorized Suppliers Profile

By Frequency, Income & Years in Business

Frequency of Supply	Number
>1times/Week	18
Daily	1
Other	11
Weekly	10
Total	40
Other Sources of Income	
Farming	18
No Other Source	22
Total	40
Years in Business	
< 1 Year	10
1-5 Years	19
5-10 Years	5
>10 Years	6
Grand Total	40

Non-Motorized Suppliers Profile...

Problems Faced by Suppliers

Problems Stated	Number	%
Confiscation	4	10
Bribes to Forest Guards	3	7.5
Lack of Selling Place	3	7.5
Travelling at Night	2	5
Shortage of Fuel	2	5
Previously PA Control	1	2.5
No Problem	25	63
Total	40	100

- Close to 40% reported that they have experienced problems.
- Main problems mentioned include confiscation, bribes, lack of selling space and the danger of traveling at night.

PROFILE OF SUPPLIERS

Motorized Suppliers

Motorized ...

By Ownership of Vehicle, Fuel and Main Business

- 50% of drivers own the vehicles
- 75% of the drivers transport fuel for other suppliers (absentee and or passengers)
- Fuel transport reported as main business by more than half

Vehicle Yours?	
No	10
Yes	10
Grand Total	20
Fuel Yours?	
No	15
Yes	5
Grand Total	20
Transporting Fuels Main	
No	9
Yes	11
Grand Total	20

Motorized Years in Business

- The majority (75%) were engaged in fuels transport business for only less than 5 years

Years	Number
< 1Year	7
1-5 Years	8
5-10 Years	4
>20 Years	1
Total	20

Motorized ...

Distance of Sources of Supplies

- Half of the fuels supplied from less than 40 kms.
- NB: Charcoal transporters not included, in which case the distance could go up to 500 kms, due to illicit nature of the business

Distance (kms)	Number	%
25 to 40	10	50
41 to 60	4	20
61 to 100	4	20
100+	2	10
Total	20	100

Motorized...
Destination of Supplies

Destinations	Number
Abune Petros	1
All Constructi	1
Arat Kilo	1
Chew Berenda	1
Doro Manekia	1
Legahar	1
Agoza	1
Piazza Area	1
Rurael Area	2
Sebategna	2
Shola Gebeya	3
Shola Yeka Ar	1
Teklehaymano	1
TOTAL Area	1
Various Hotels	1
Grand Total	19

Motorized ... Problems Stated

Problems	Number
Confiscation	5
Lack of Demand	2
Control of Pas	1
Night Driving	1
No Problem	11
Total	20

- Nearly half of them reported to have experienced problems in this business.
- Confiscation at checkpoints is the most important problem mentioned by motorized transporters.