

Economic Review of Improved Biomass Cooking Solutions in Semi-urban Households in Sri Lanka

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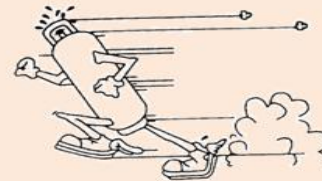
Between Two Alternatives



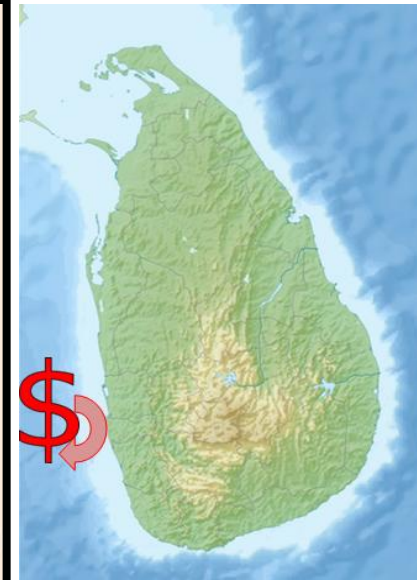
VS



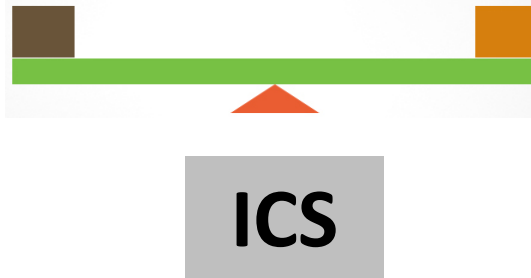
\$ 100 Mn
per year



@ 19% HH
using LPG as
main cooking fuel



Cheap;
Abundant;
Indigenous &
Renewable;
Flexible



User friendly;
Minimal IAP;
Improved
cleanliness

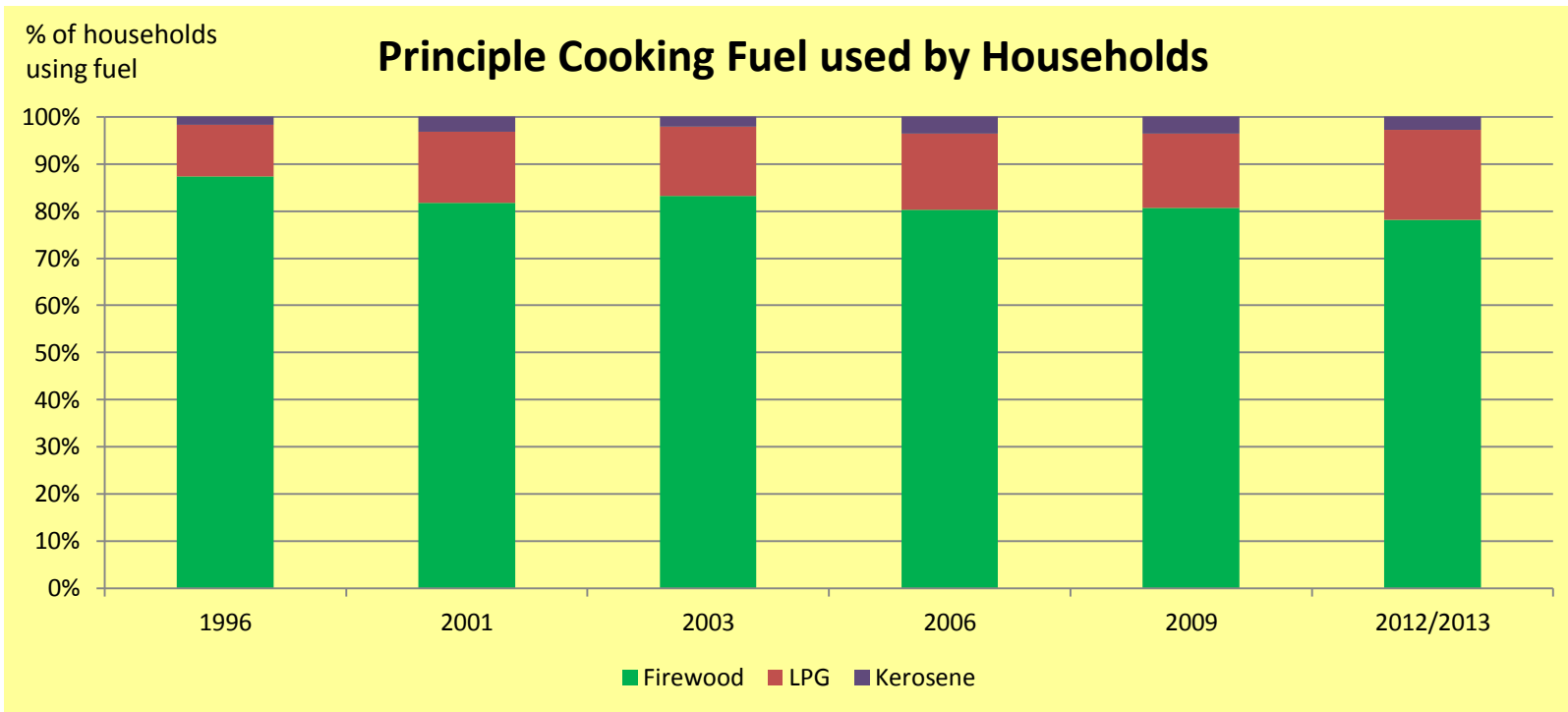


Supportive facts:

Price of LPG : Fuelwood per household per month in Sri Lanka = 3: 1

(*Source: Household Income and Expenditure Survey, Department of Census and Statistics, Sri Lanka)

Domestic Cooking Scenario in SL



Breakdown by Sector:			
Sector	2009	2012	3 yr Increment
Urban LPG	48	55.5	+15.63
Rural LPG	11.3	12	+6.19
Urban FW	39.2	35.2	-10.20
Rural FW	86.7	85.7	-1.15

(*Source: Household Income and Expenditure Survey; Department of Census and Statistics Sri Lanka)

Domestic Cooking Scenario in SL (cont.)

- Choice of the cooking fuel is directly related to “cost” and “convenience”.
- SL implemented successful intervention in dissemination of improved Cookstoves.
- Local solutions emerged with characteristics of both alternatives: “Convenient Biomass Cookstoves”
 - ✓ reduced smoke and soot
 - ✓ reduced firewood use
 - ✓ reduced time for cooking and cleaning



A Theme for a Transitional Period

“As convenient as LPG

and

Cheap & abundant as Firewood”

An Example “Convenient Biomass Cookstove”

Lakro Turbo Cookstove

- ✓ Cost around USD 33
- ✓ Charcoal or firewood splits could be used
- ✓ Use of very small amount of electricity
- ✓ Needs further improvements and performance testing
- ✓ Portable



Lakro Turbo Cookstove (below – self taken photograph when using charcoal)

Results of Economic Analysis

A Comprehensive Economic Analysis should include:

- Avoided operational cost (of LPG)
- Reduction of overall biomass use
- Avoided equipment cost of LPG accessories
- Development of local industry
 - Equipment manufacturers
 - Processed biomass (charcoal, wood chips, etc.)
- Improved Technology transfer
- Time saved for cooking activities
- Health benefits

Cont...

Towards Energy Security

Macro Economic Benefits

Description

Reduce drainage of local wealth

Through reduced LPG use.

Facilitate regional development

Improves employment opportunities & technology transfer

Local farmers and equipment manufacturers get most benefits.

Less vulnerable for market forces

Change of LPG prices in world market
Through less use of firewood



Acknowledgements for the organizers of ACEF 2015...

Thank You



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