



# Gender Mianstreaming the RETs Sector

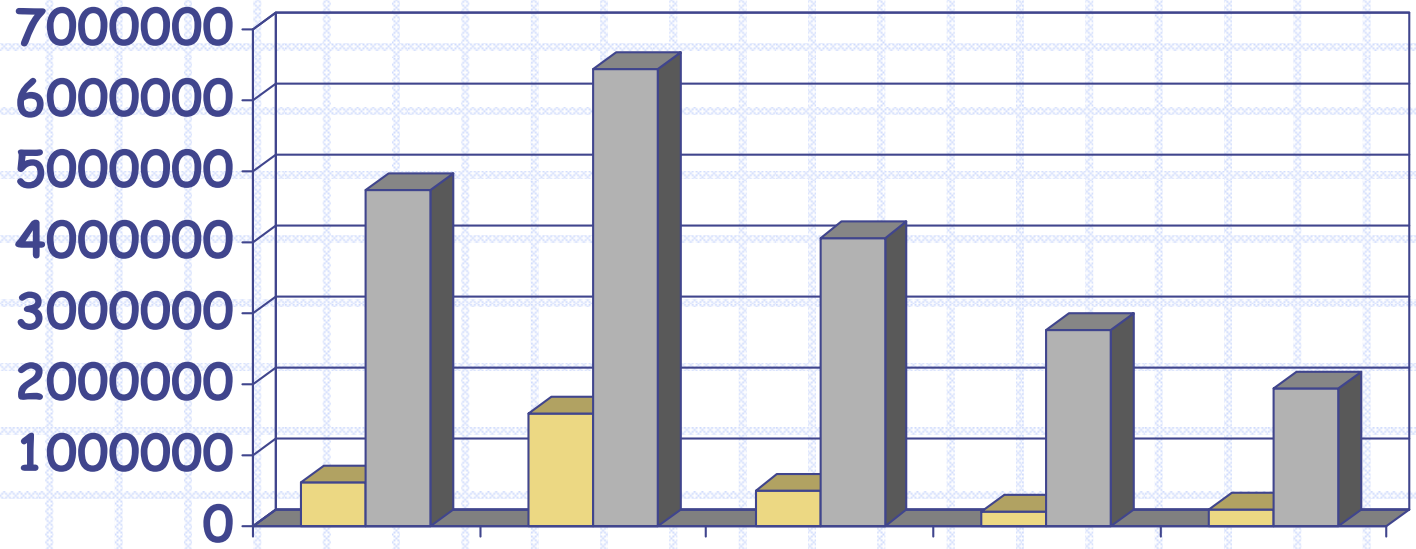
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Gender, Energy And Water Network GEWNet, CRT/N

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# Urban-Rural Population (2006)



Eastern    Central    Western    Mid    Far  
Western    Western

Urban
Rural

19%	50%	16%	7%	8%
24%	32%	20%	14%	10%



# The Nepalese Situation



Households – largest energy consuming sector

- ◆ Cooking dominates end use 72 % total HH energy supply is met by fuelwood & crop residues, animal dung

Lighting - about 1.5 % of total rural energy us

- ◆ Supplied largely by kerosene, about 10% only have access to electricity



## Different End-uses of Biomass fuels in Urban and Rural Residential Sector

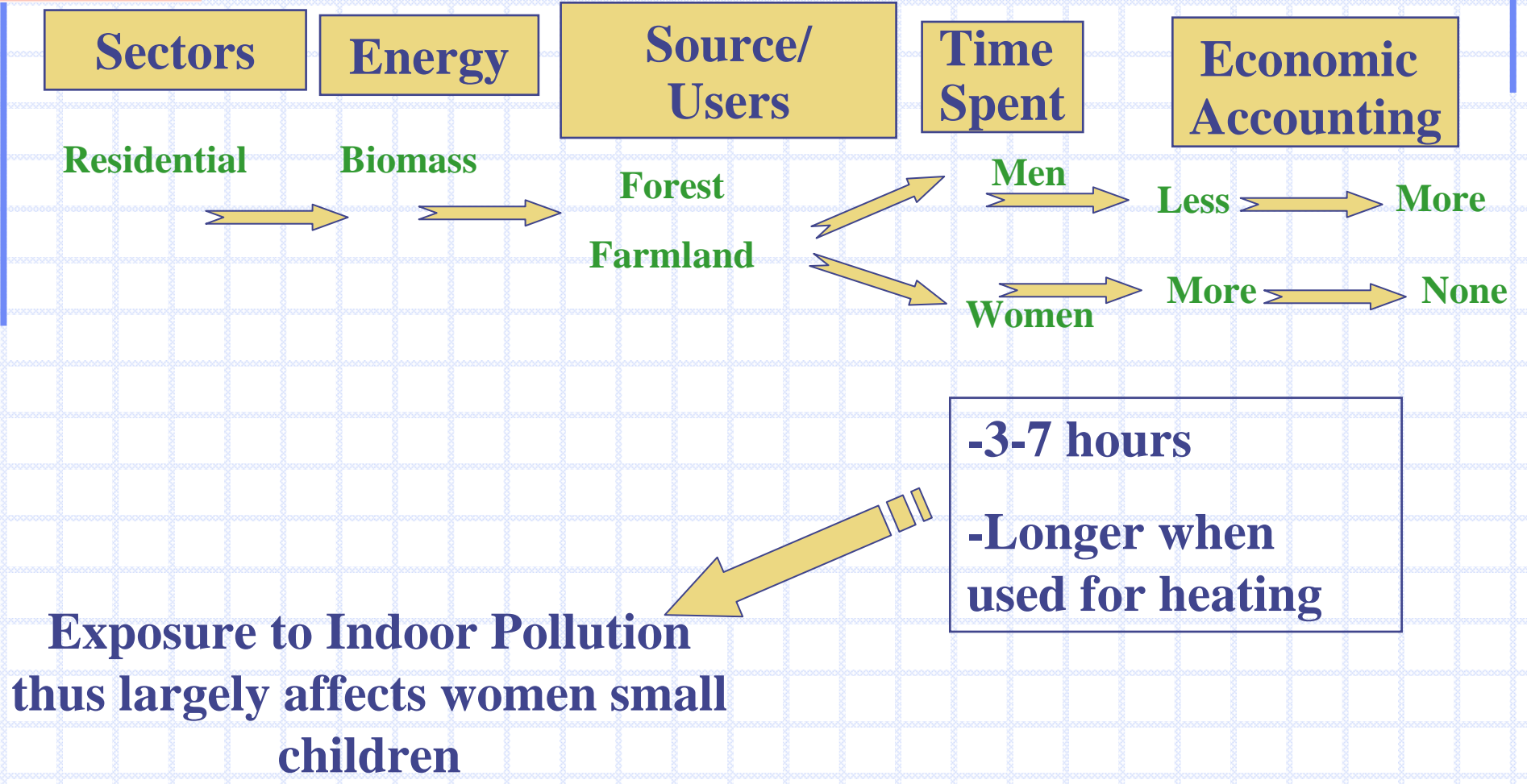
Purpose	Urban (%)	Rural (%)
Cooking	67.42	65.39
Heating	15.47	8.35
Agro-processing	5.37	3.33
Animal Feed Preparation	7.58	16.41
Religious Purpose	4.16	4.28
Water Boiling		2.23

*Source: WECS 2004*





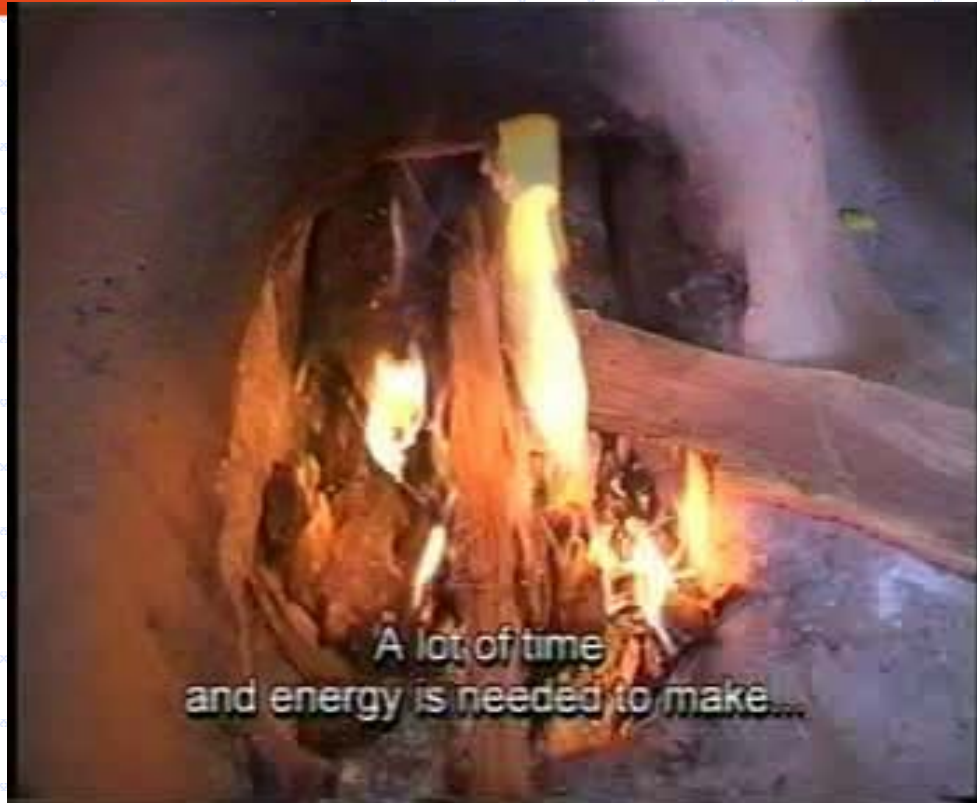
# Gender and Domestic Energy (Cooking)





# Role of Women

# Domestic Cooking



**a. Are the primary energy managers in Nepali families**



**b. Suffer from the highest levels of drudgery managing these resources**



# Fuel Collection



...than their mothers.



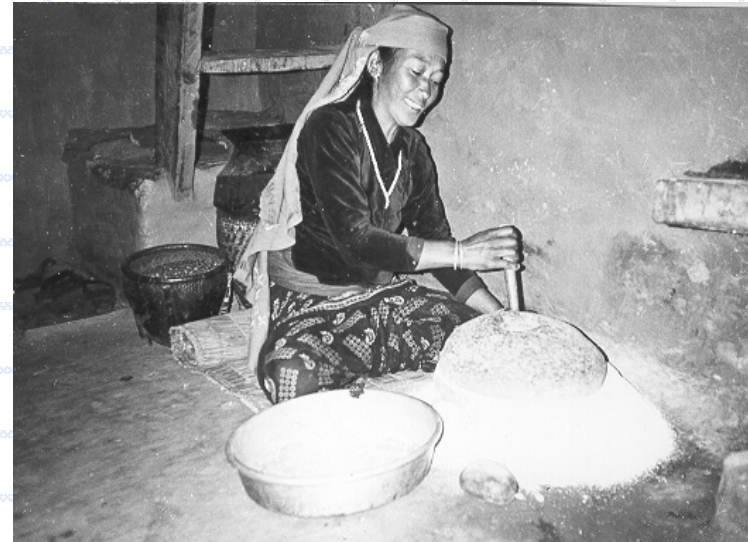




# Fuel, Fodder and Water Collection



# Agriculture and Animal Rearing



# Energy Scenario in Nepal

A. A Typical Kitchen

B. Fuel Source and Collection

C. The Home Environment

## Why link Gender and energy? Specific needs

- **Practical/vital:** cooking, grinding, water collection, agricultural activities
- **Social:** health, education/training, transport
- **Productive:** conservation, processing, marketing, access to credit
- **Strategic/political:** participation to decision-making, associative activities, environment protection, and decentralization.



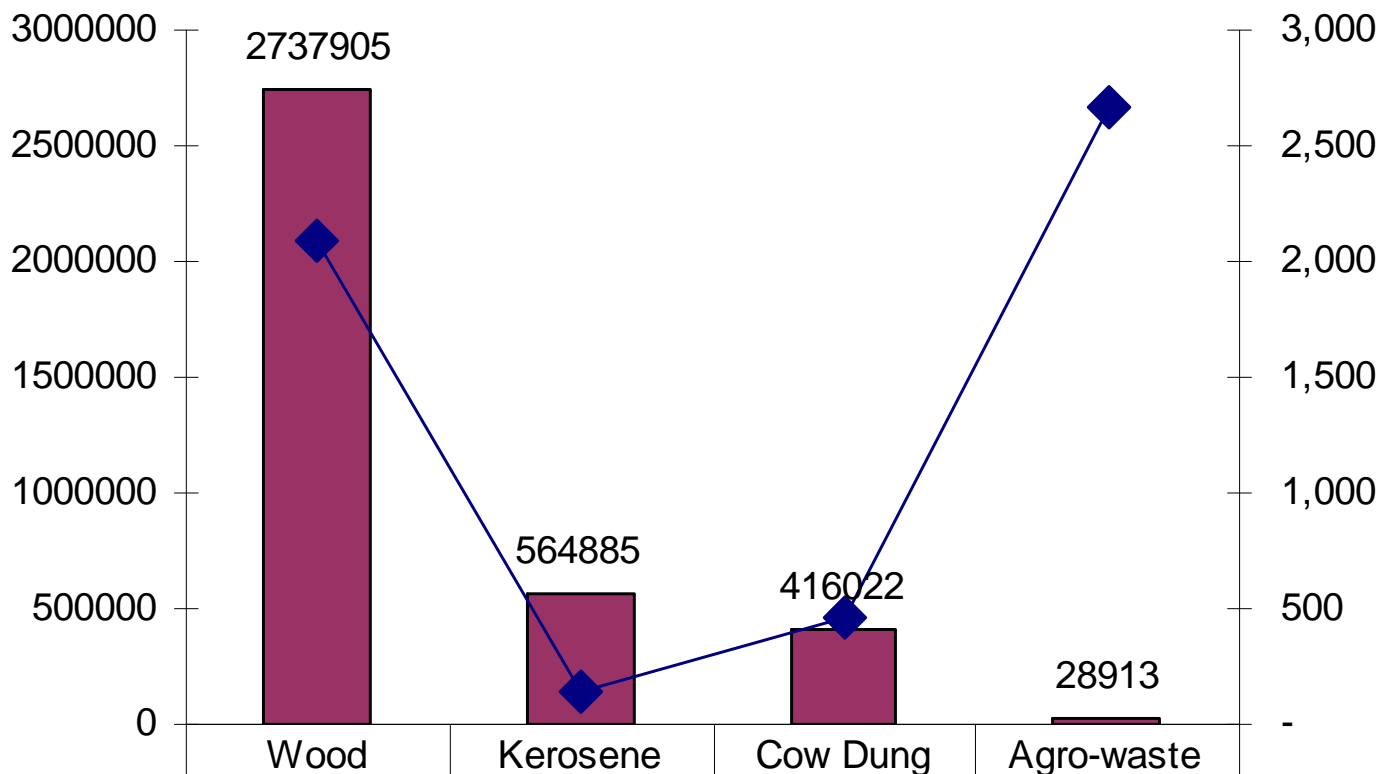


## Why link Gender and energy? Determined commitment

- **Rejecting inactivity.**
- **decency within the society.**
- **Refusal of compassion.**
- **Outpacing the limits.**
- **Pride in the effort.**



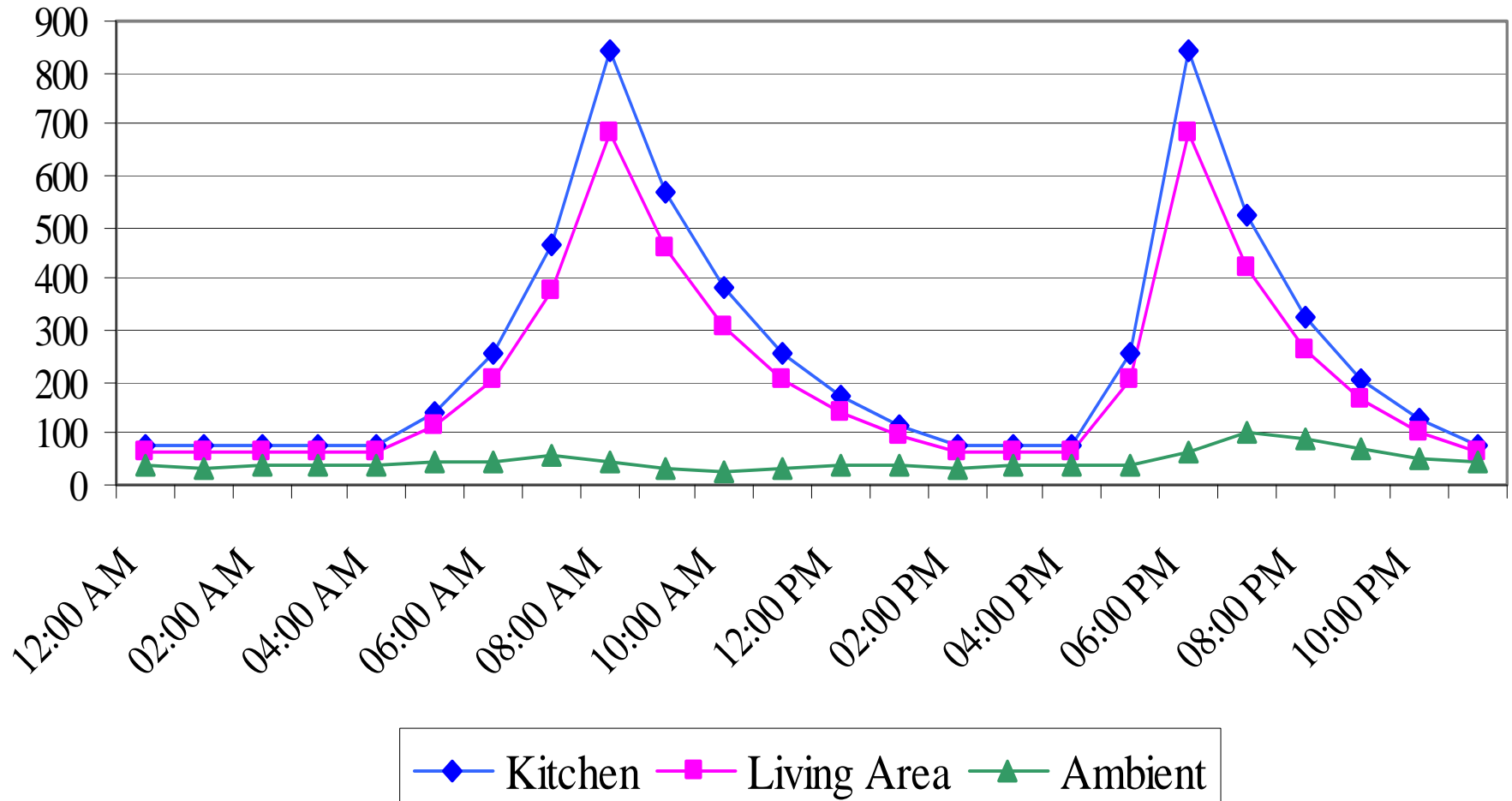
# Households by Fuel Use for cooking alone and Resulting Pollution



Households	2737905	564885	416022	28913
Total Pollution (g/day)	2,090	141	456	2,667



# Daily PM<sub>10</sub> Concentrates by Location





# Daily Average PM<sub>10</sub> Exposure by Age and Gender

Age	Typical Household	
	Female	Male
0-1	216	214
1-5	212	212
6-8	173	172
9-19	207	174
20-60	227	116
60+	220	161

Source: World Bank 2004





# Implications of the Present Energy Use

## *Direct Impact:*

- ◆ burns to children falling into open fires,
- ◆ child and adult health problems, low birth weight, prenatal mortality (still births and deaths in the first week of life) asthma and middle ear infection for children, nasopharyngeal and laryngeal cancer
- ◆ acute lower respiratory infections (ALRI) in childhood, particularly pneumonia, asthma, tuberculosis, cataract in adults.

# Implications of the Present Energy Use (contd.)

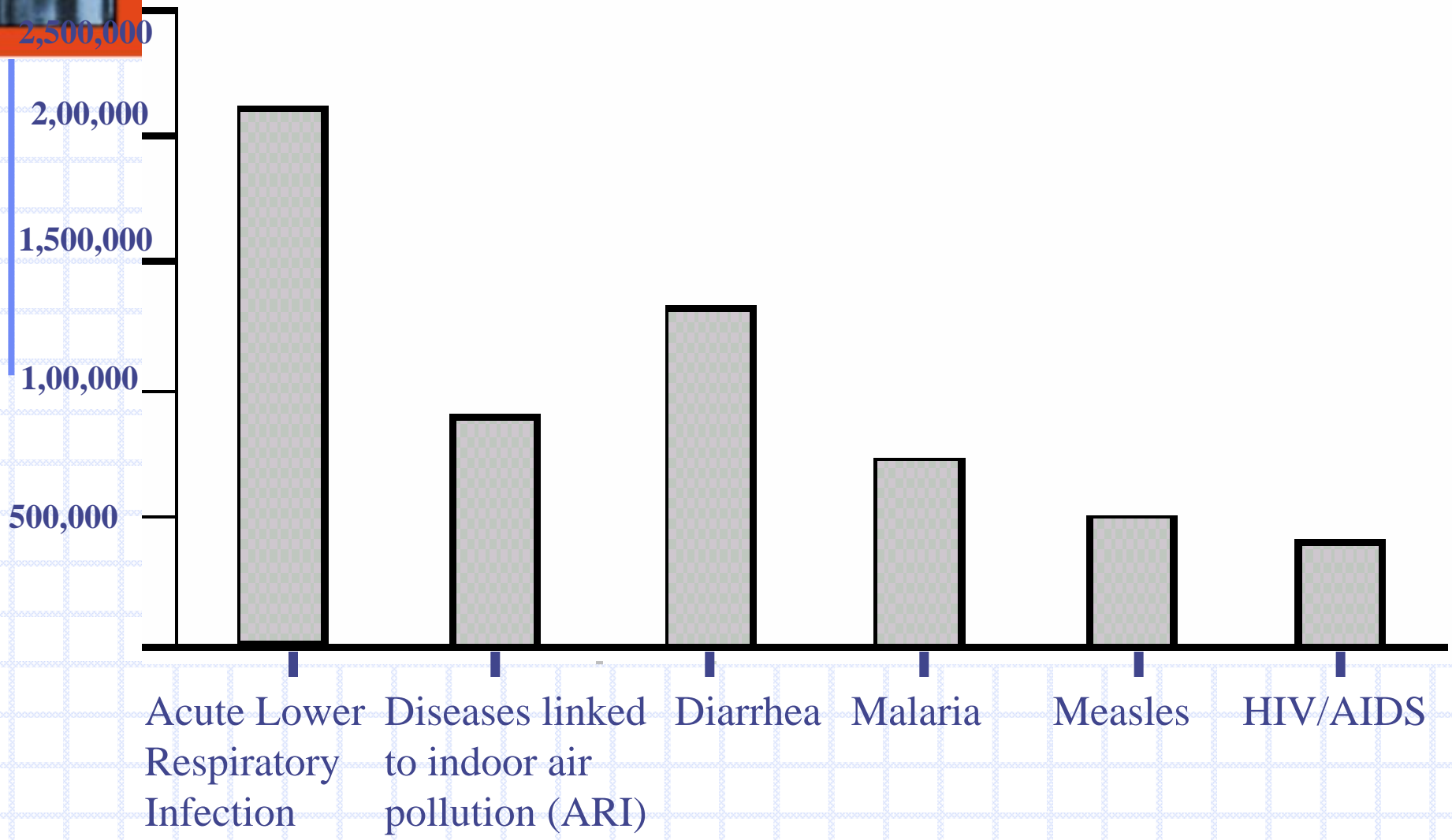


## *Indirect*

- ◆ The opportunity cost of women's (and children's) time spent collecting fuel, estimated at 0.5-2 hours per day;
- ◆ Vulnerability of women to injury and violence when collecting fuel, especially when supplies are scarce and in areas at times of political unrest
- ◆ Accidental poisoning of children drinking kerosene stored in soft drink containers
- ◆ Restrictions on economic and educational activity in the home due to poor air quality, lack of adequate light, and the inflexibility in use of available fuels and appliances
- ◆ Degradation of the local environment:
- ◆ Perhaps more important is that poor people who are dependent on wood in areas where the environment is under stress will have more difficulty in meeting their energy needs, and women may have to spend more time collecting wood or alternative biomass.



# Deaths in Under fives by Various Causes





# Gender relationship to health

In addition, the health effects of domestic use of biomass fuels (wood, dung, agricultural residues) and coal are suffered largely by women. Important issues can be summarized as follows:

- ◆ Women are hit hardest by shortage of fuel, since the onus is on them to find solutions.
- ◆ Household coping strategies can affect nutritional status since fuel availability affects cooking habits and food availability.
- ◆ Better understanding is needed of the health impact of restricting poor communities' access to natural resources.
- ◆ The linkages between fuel, food, water, women's time and women's health warrant further exploration.
- ◆ Women's respiratory disorders are linked to domestic exposure to cooking smoke; however, respiratory disease in women often goes untreated.



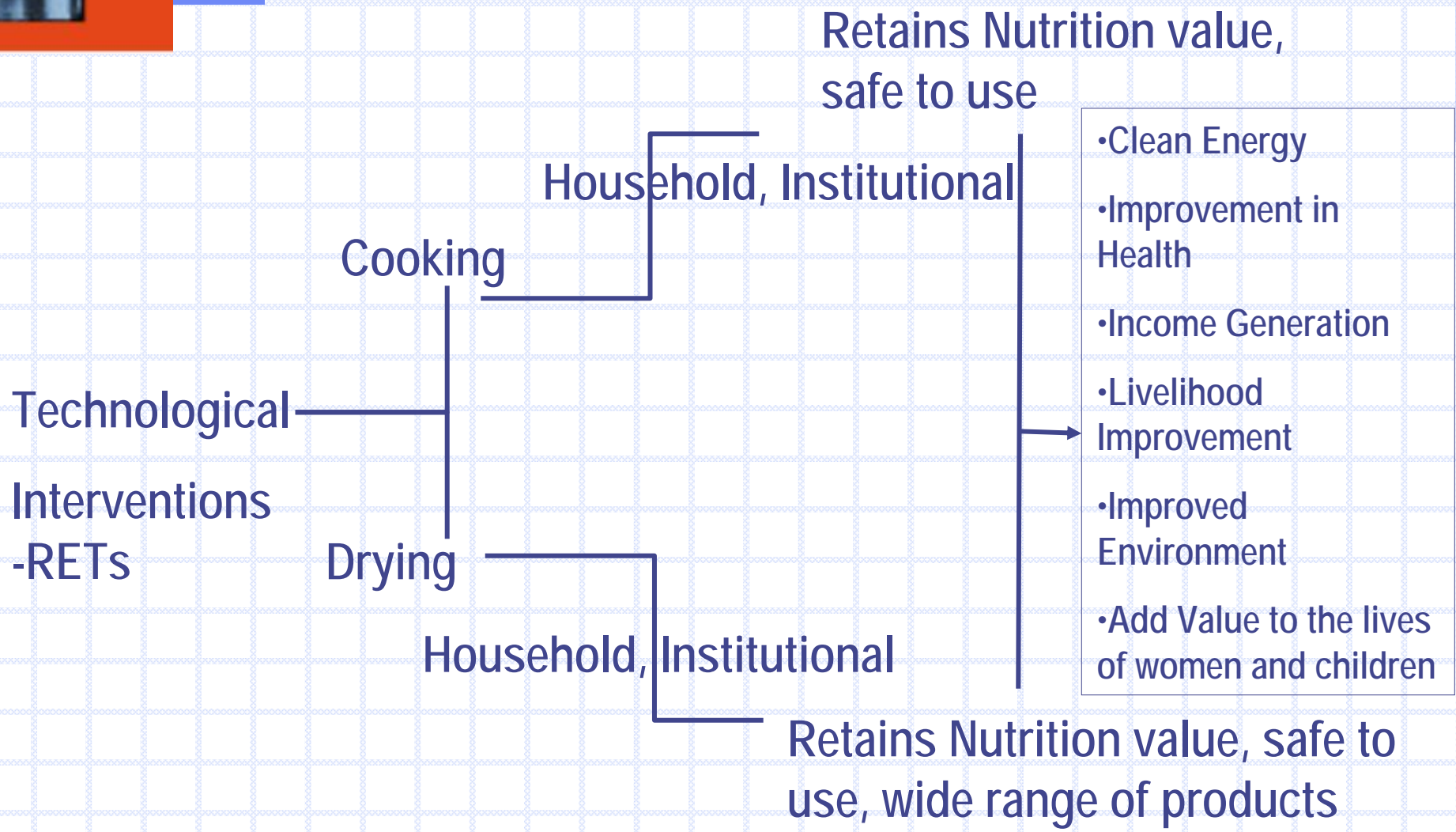


## Other Impacts of Present Energy Use

- ◆ Feminisation of poverty
- ◆ Predominance of biomass in energy consumption and adverse impacts on the environment



# A Possible Technological Intervention





# Technological Interventions and Impact

# APPROACH of Technological Interventions



- ◆ Addressing 'practical gender needs'
  - For cooking: ICS, Biogas, Solar, Community Forestry
  - For agro/food processing: Micro-hydro, Solar
  
- ◆ Addressing 'strategic gender interests'
  - Equal and effective mobilization of women
  - Promotion of income generation as practiced by
  - Rural Energy Development Programme (REDP).



# Technological Interventions

- ◆ Improved Cook Stoves
- ◆ MMHP
- ◆ Biogas
- ◆ **Briquetting**
- ◆ Solar Technology



# Reduction in Fuel Consumption per Household/day from Biogas Installation

<b>Fuel Type</b>	<b>Before</b>	<b>After</b>	<b>Decrease</b>	<b>Decrease %</b>
Fuelwood (kg)	11.74	5.735	6.005	+51.15
Agriculture Residue (kg)	2.5	2	0.5	+20.0
Dung (kg)	18	0.1	17.9	+99.4
Kerosene (Litre)	0.58	0.215	0.365	+62.93
Liquefied Petroleum Gas (LPG) (No. of Cylinders)	4	6	-2	-50.0

*Note: 12.5% Leakage of CH<sub>4</sub> is considered for this estimation (as per the IPCC guidelines).*



# Time spent in collection Traditional Fuel Sources (Minutes/day)

Fuel Source	Tarai			
	Before		After	
	Male	Female	Male	Female
Fuel-wood	63.1	111	38.8	58.97
Dung	0.4	3.07	0.13	1.73
Agri-waste	1.07	1.6	0.3	0.6

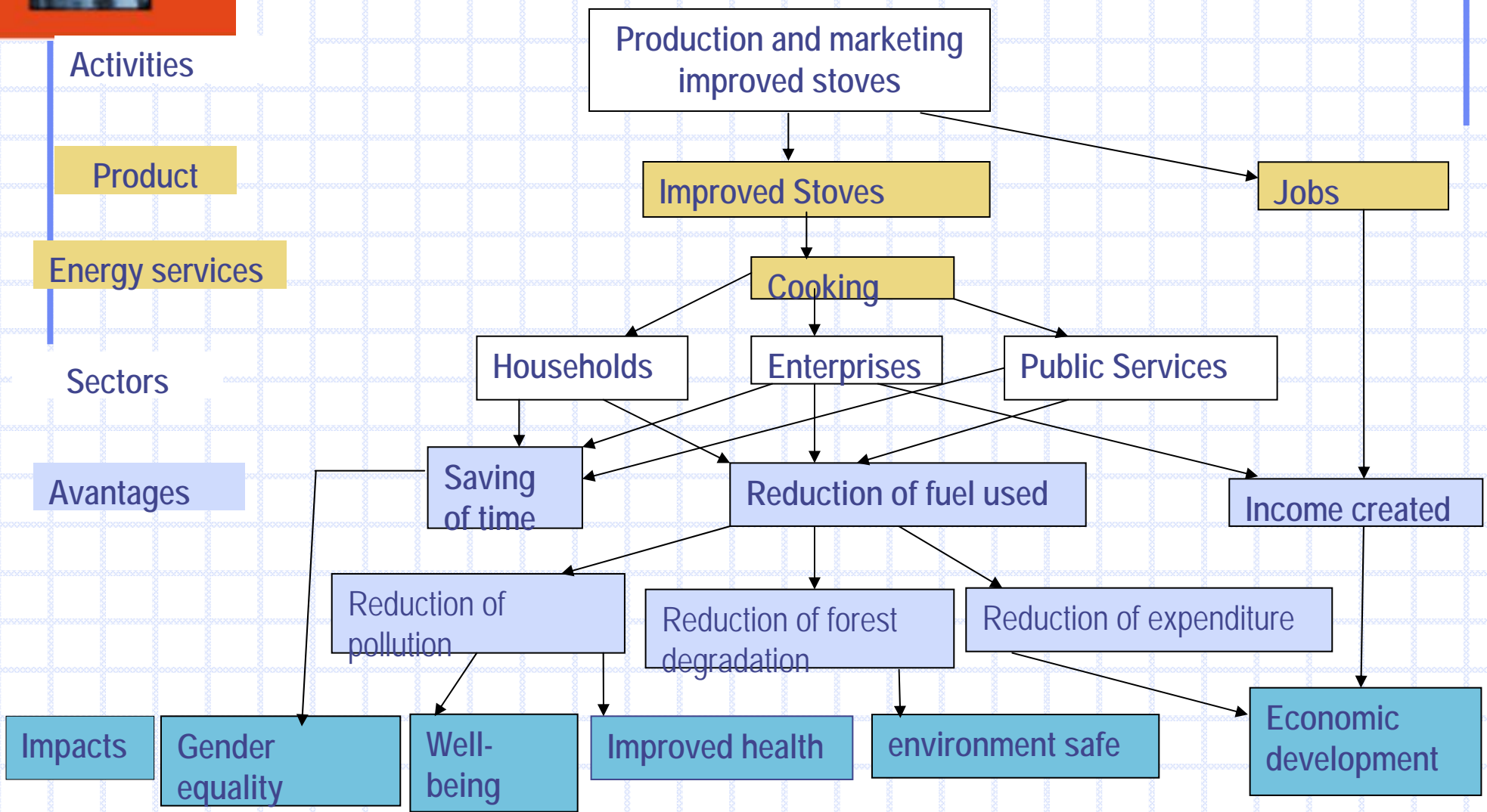
## Cause and effect chain

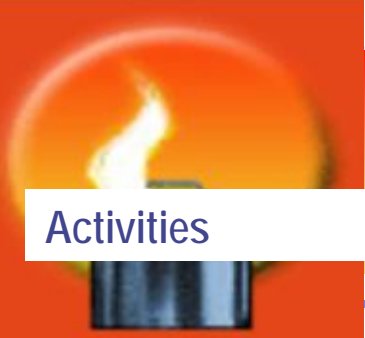


- ◆ Projects must necessarily take into consideration existing causalities between Gender – Energy - MDGs/Poverty alleviation and other factors.
- ◆ Develop a good apprehension of these linkages by women to be familiar with the factors of success of the projects and their social, economic and environmental impacts.



# Cause and Effect Chain





Activities

Product

Energy services

Needs/interests

Advantages

Tasks distributed

Impacts

# Cause and effect chain

Small- and Medium-Sized Enterprises Solar and gas powered fruit and vegetable drying  
Production & commercialisation

Dried fruit & vegetables, syrups and jams

Drying

Practical

Productive

Strategic

Access to energy services

Well being

Development of enterprise

Increased productivity

Jobs

Community life

Tasks distributed

Balanced diet

Children go to school

Less dependent

Good management

Decision-making body

IGA

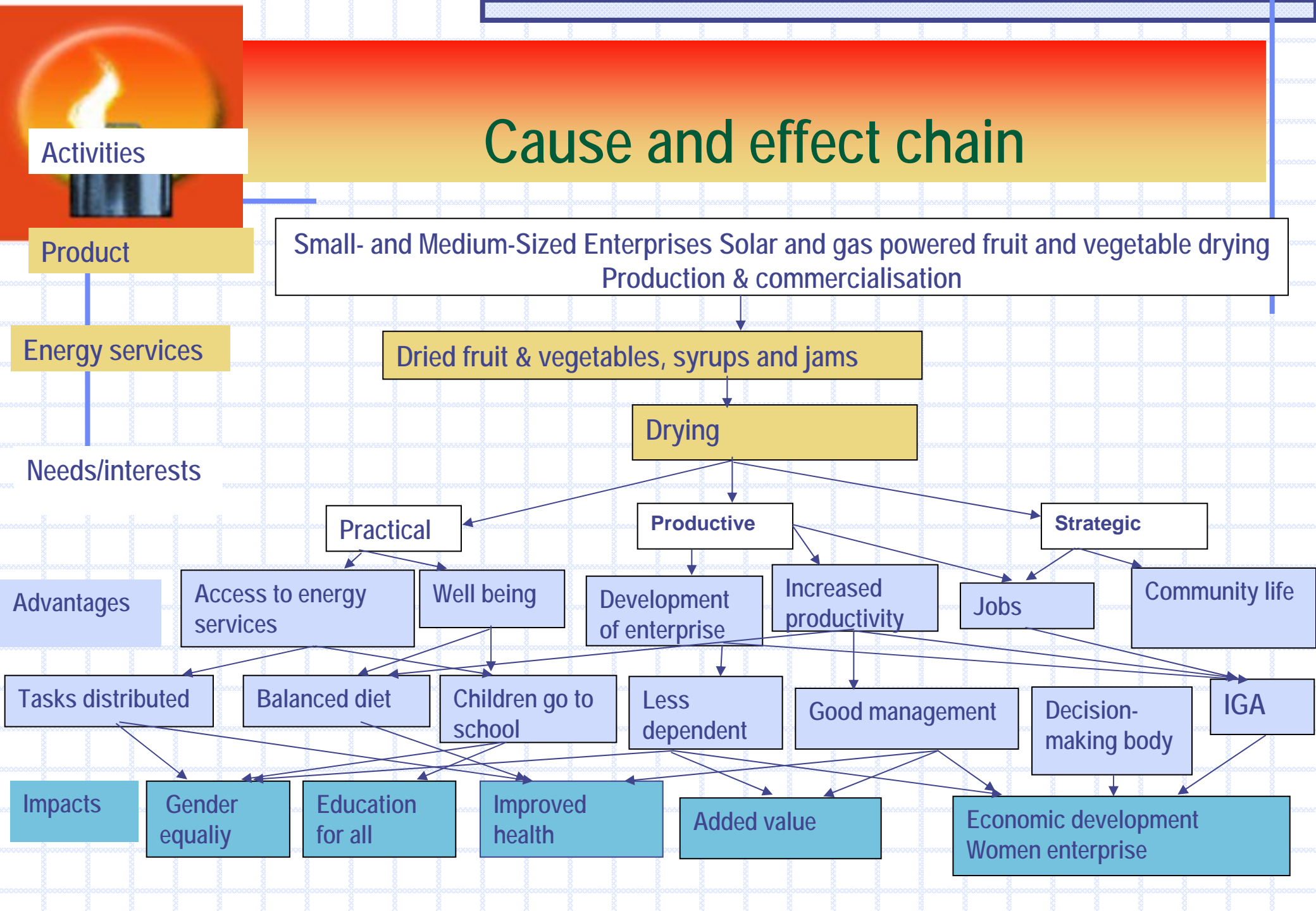
Gender equality

Education for all

Improved health

Added value

Economic development  
Women enterprise







EXISTING SITUATION - POLICIES,  
CONSTRAINTS  
AND  
CHALLENGES



# Policy Gaps

## ◆ *Energy Policy*

- electricity development sector policy aims at improving the quality of life by increasing rural women's participation (implying in rural electrification users groups) in the electricity generation, distribution and the use
- The new Rural Energy Policy-2006-mentions the need to promote RETs for improving lifestyle and reducing adverse health situations and drudgery of women and children

***Otherwise both Policies are completely “gender blind” in its situational analysis, identifying strategies and hypothesizing expected outcomes.***

# Policy Gaps (*contd.*)

## ◆ *Sectoral Policies*

- **Environment sector policy**
- expects to achieve gender equality through motivation for
- women in environment related activities especially by
- awarding women's environmental conservation groups
  
- **Social sector policy on women,**
- no linkage made between energy and women's
- empowerment



## Policy Gaps (*contd.*)

- ◆ *The forestry and soil conservation sector policy*
  - empowering women and enhancing their income generation through their active participation within forest user committees, especially by targeting women and *dalit* communities in leasehold and partnership forestry
  - emphasizes in gender sensitisation and women's leadership building to ensure access to and control over resources related to forestry and soil conservation capacity building embraces gender concerns in its training programme.

# Constraints and Challenges

- 
- ◆ *Heavy Financial Investment and Lack Of Access To Credit*
  - ◆ *Traditional Mind-set about Gender*
  - ◆ *Donor Dependence*



# Constraints and Challenges

## ◆ *Gender and poverty status in Nepal*

- Nepali women are poorest among the poor because of: discrimination in socio-economic and educational opportunities, ownership of assets (land and water) legal rights, decision making, employment opportunities and wage differentials
- 38% of multi-ethnic and multi caste 23.15 million people (49.95% males and 50.05% females) live in income consumption poverty earning \$1/day (World Bank)
- Human deprivation poverty: curtailed in intra-household resource distribution in poor households as well as households in poverty threshold drawing them into poverty situation
- 83% of the Nepali women live in rural areas
- It is imperative to address the “feminization of poverty” issue for breaking the vicious cycle of poverty



# Constraints and Challenges

- ◆ Mismatch between Need and Technology
- ◆ Lack of need based R&D



# ENERGY, GENDER & MDGs

**MDG 1: Eradicate Extreme Poverty and Hunger** - Income Generation and Enhancing Productivity.

**MDG 2: Achieve Universal Primary Educations** - Time saved, education opportunity for children; Reducing IAP, improves health and increases the numbers of children attending school.

**MDG 3: Promoting Gender Equality and Empowering Women-**  
Appropriate interventions saves time; opportunities to increase women's social capital, new skills development, access to information.

**MDG 4: Reducing Child Mortality** - Children are most affected by IAP. IAP reduction improves their health.

**MDG 5: Improving Maternal Health**- Mothers and the baby in the womb are most affected by IAP. IAP and drudgery reduction improves health of the mother and child.

**MDG 6: Combat HIV/AIDS, Malaria and other Diseases** -  
Opportunities for attaining awareness related to health in general; ability Preserve & Sterilize Medicine

**MDG 7: Ensuring Environmental Sustainability** - Reduces IAP, lessening in greenhouse gas emissions and conservation of forest areas



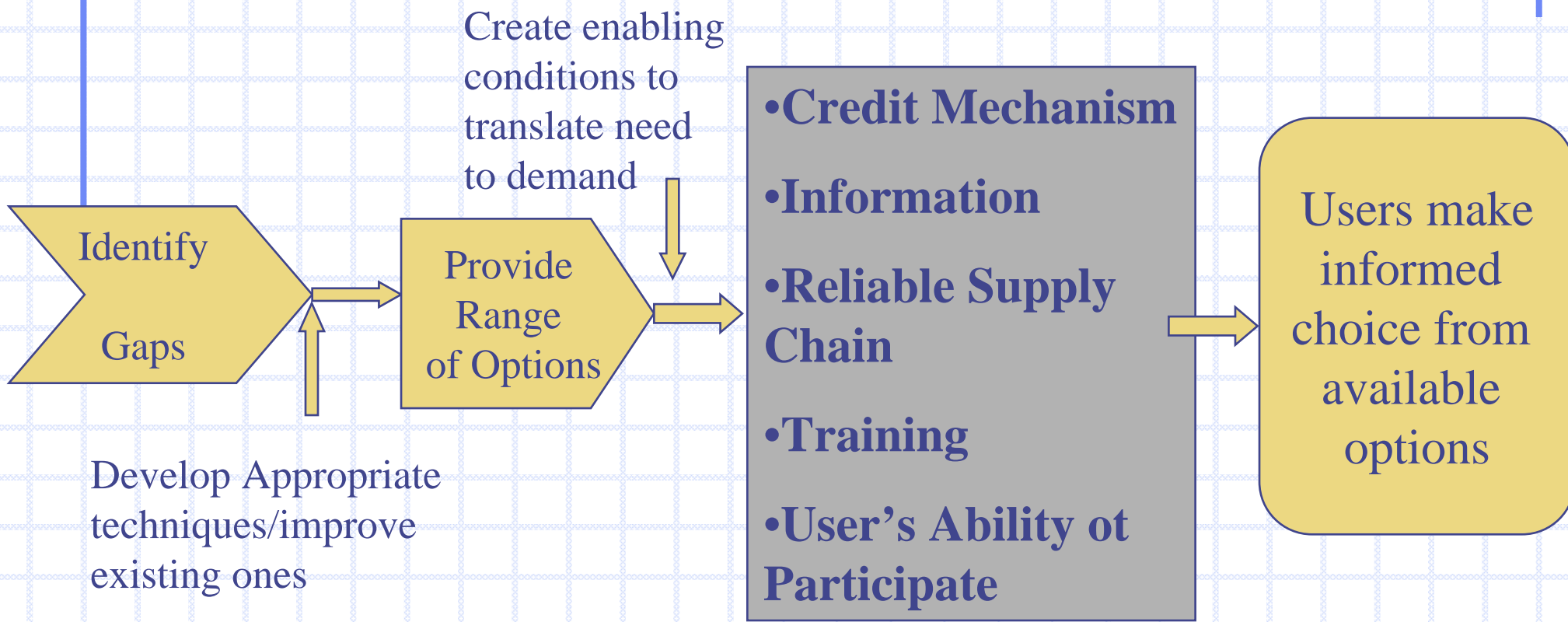
# Recommendation

- ◆ Recognition
- ◆ Assess
- ◆ Identify and Implement
- ◆ Capacity Building
- ◆ Enabling Access and Affordability



# Overall Policy Directions

- Shift in 'technology' from Market to 'service provision' mode







## Recommendation for Achievement of MDG

1. Gender Mainstreaming in Energy Policies, Planning and Decision Making Processes
2. Affirmative Actions to Bring a Critical Mass of Women in Energy Sector Decision Making
  - Reservations/Quotas
  - Capacity building of women
  - Legal provisions for positive discrimination in favour of women
  - Creating enabling environment for women considering their biological and gender roles
  - Ensuring violence-free working environment (both within domestic and the public sphere) and recognizing their rights.



## Recommendation for Achievement of MDG

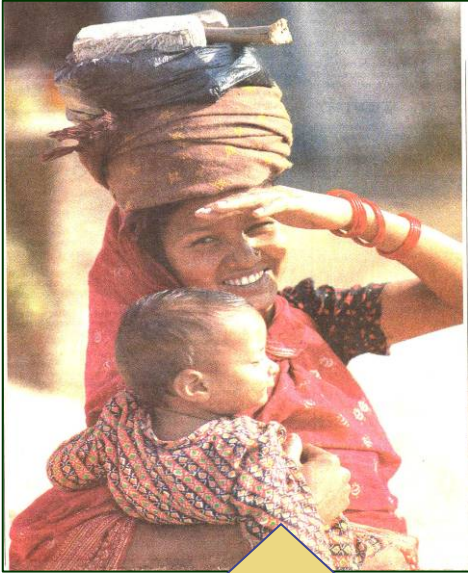
3. Adopting Gender Responsive Budgeting in Energy Sector
4. Adopting Gender Perspective in M&E and Impact Assessment



## Ten "Golden Rules" for a Gender Approach in Energy Programmes

1. Gender-sensitive M&E scheme
2. Dissemination
3. Targeting
4. Facilitating access to available and new resources
5. Building upon existing resources
6. Building capacity of the disadvantaged
7. Improving women's entry into technical positions
8. Working with women's cooperatives in the extension of RETs to rural areas
9. Engendering the institutions involved in the energy sector
10. Gender Budgeting

# What is your vision of social development for Nepal ???



*This ??*

**OR**

*This ??*





# Our Prime Duty

◆ The future generation





# Acknowledgement

- ◆ AEPC
- ◆ WECS
- ◆ CRT/N
- ◆ BSP/N
- ◆ REDP
- ◆ Practical Action
- ◆ Kathmandu University



THANK YOU