

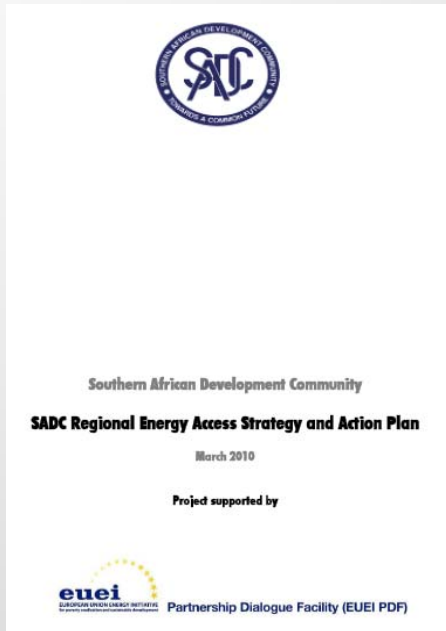
Energy Poverty and Energy Access in the SADC Region

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Pro-Poor Biomass Innovation Workshop
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Topic hierarchy and PPT outline



- **Pro-poor Innovation – the Case for Effective Biomass Usage in Rural Households**
- > ***Energy Access and Sustainable Development***
- >> **Energy Poverty and Energy Access in the SADC Region**
- **Energy and poverty**
- **Energy access**
- **Sustainable development**
- **Macro and micro interventions**
- **Biomass**

Energy poverty in SADC

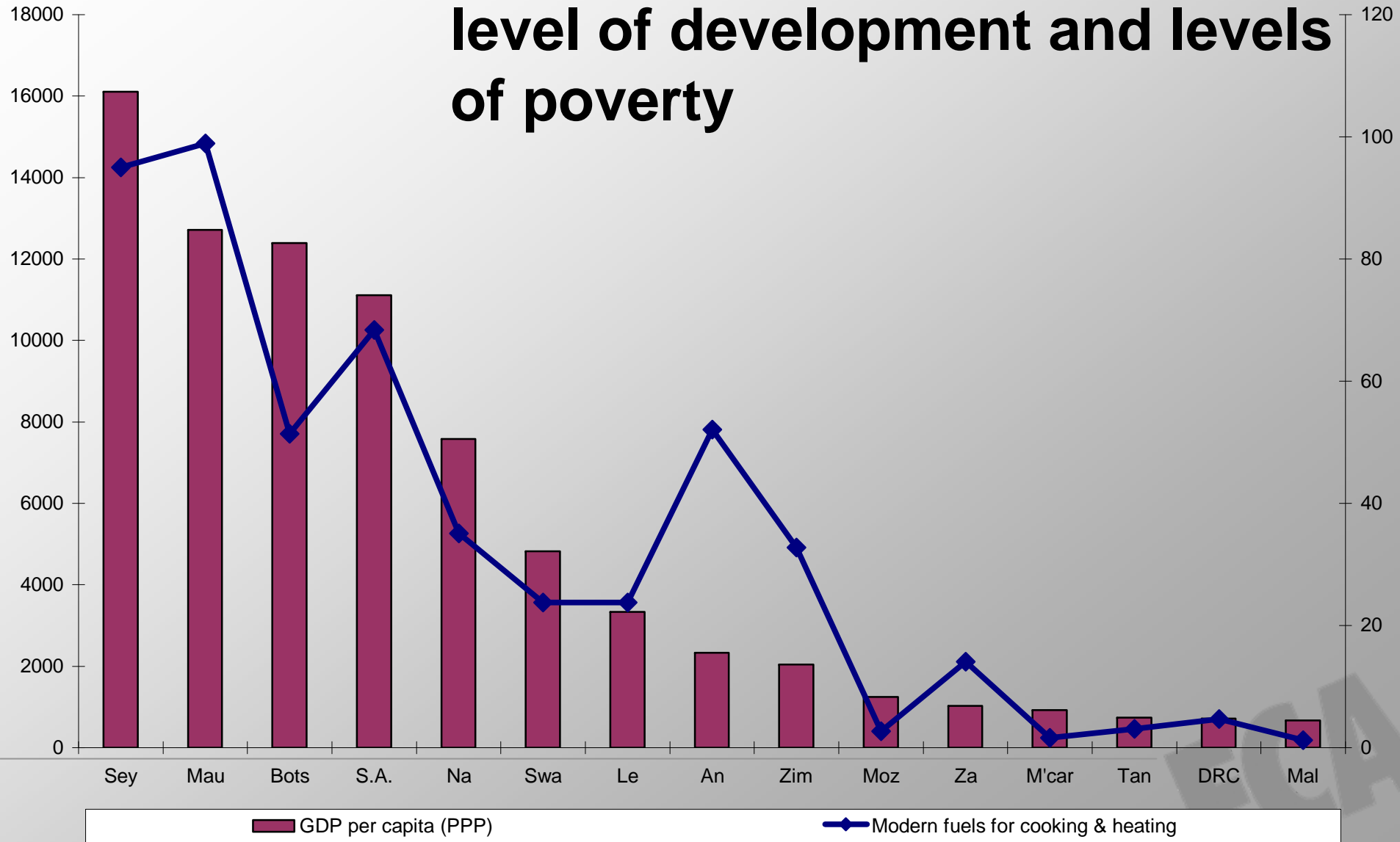
- 'Energy poverty' is difficult to distinguish from poverty per se
- Poor people spend a high proportion of their income, typically on inadequate forms of energy

Percentage of Households in South Africa

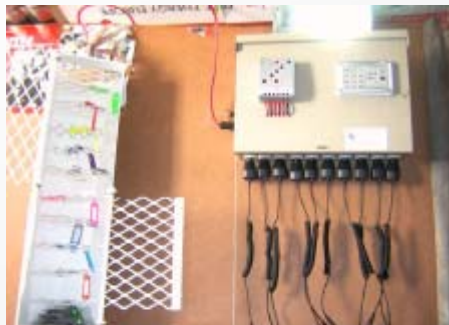
Fuel/income group	Rural Limpopo	Urban Khayelitsha	National
	Cooking Fuels		
Wood	91	0	21
Kerosene	3	37	21
LPG	3	6	3
Electricity	4	56	51
	% income spent on energy		
Lowest	19	14	
Middle	8	6	
Highest	6	3	

Poverty in SADC

- SADC has 15 member states
- Enormous differences in size, level of development and levels of poverty



Energy access



energy shop,
Namibia

- **Access to energy** unpacks into 3 more A's
 - **Availability**
 - **Affordability**
 - **Acceptability**
- **Access is best defined as the actual use of energy**
- **Availability** is not sufficient to ensure usage
 - Petroleum products and an electricity grid may have reached a remote rural village but do poor people really have access?
- **Affordability** is crucial but available and affordable forms of energy may still not be chosen, even by well-off households
- **Acceptability** embraces both economic and non-economic factors
 - **Economic:** willingness to pay (both capital costs and recurrent costs)
 - **Non-economic:** cultural preferences and habits, eg social discourse around family fires

Energy portfolio

- *Availability
- *Affordability
- *Acceptability

- Energy is needed for different purposes
 - lighting and small power (eg radios)
 - heat (cooking, water and space heating)
 - heavy power (machinery and pumps)
- Households have a *portfolio* of energy sources, for example
 - electricity is used first and foremost for lighting but much less often for heat
 - continued use of biomass should NOT be automatically equated with poverty
 - overriding issue is one of **ability to choose**: well off households have wider energy choices

Multiple fuels in use

- Old idea – uniform progress up an ‘energy ladder’
- New concept: households adjust their portfolios with income but are also influenced by other factors
- Mauritius data shows multiple energy sources even with near universal electrification (% of total households)

Households in Mauritius

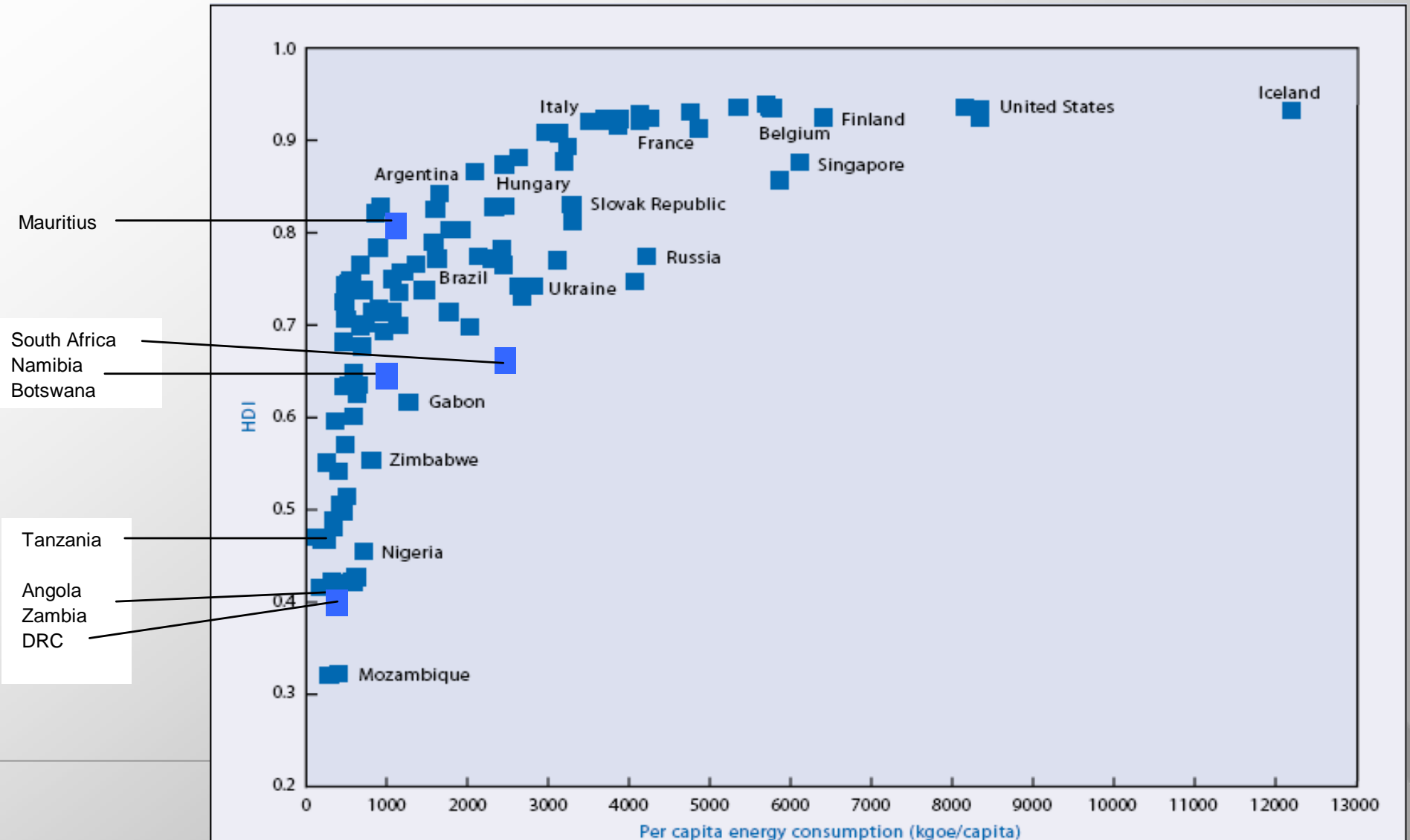
Fuel	Cooking	Cooking	Bath-water
	1972	2000	2000
Wood	55.1	4.3	
Charcoal	6.4	0.2	
Kerosene	32.4	3.4	
Electricity	3.7	0.5	25.1
LPG	1.2	91.5	39.2
Other/none	1.2	0.1	11.8/23.9

Energy access to overcome poverty in SADC

- Everyone in SADC has some degree of access to energy
- Goal is to increase access to **higher quality energy** on a **sustainable basis**
 - make high quality energy available at an affordable price
 - facilitate productive use of energy to create **virtuous cycle** of income growth and improved affordability
- Improved access and higher per capita energy usage are fundamental to:
 - **sustaining economic development**
 - **allowing people to improve their standards of living**
 - **reducing poverty**

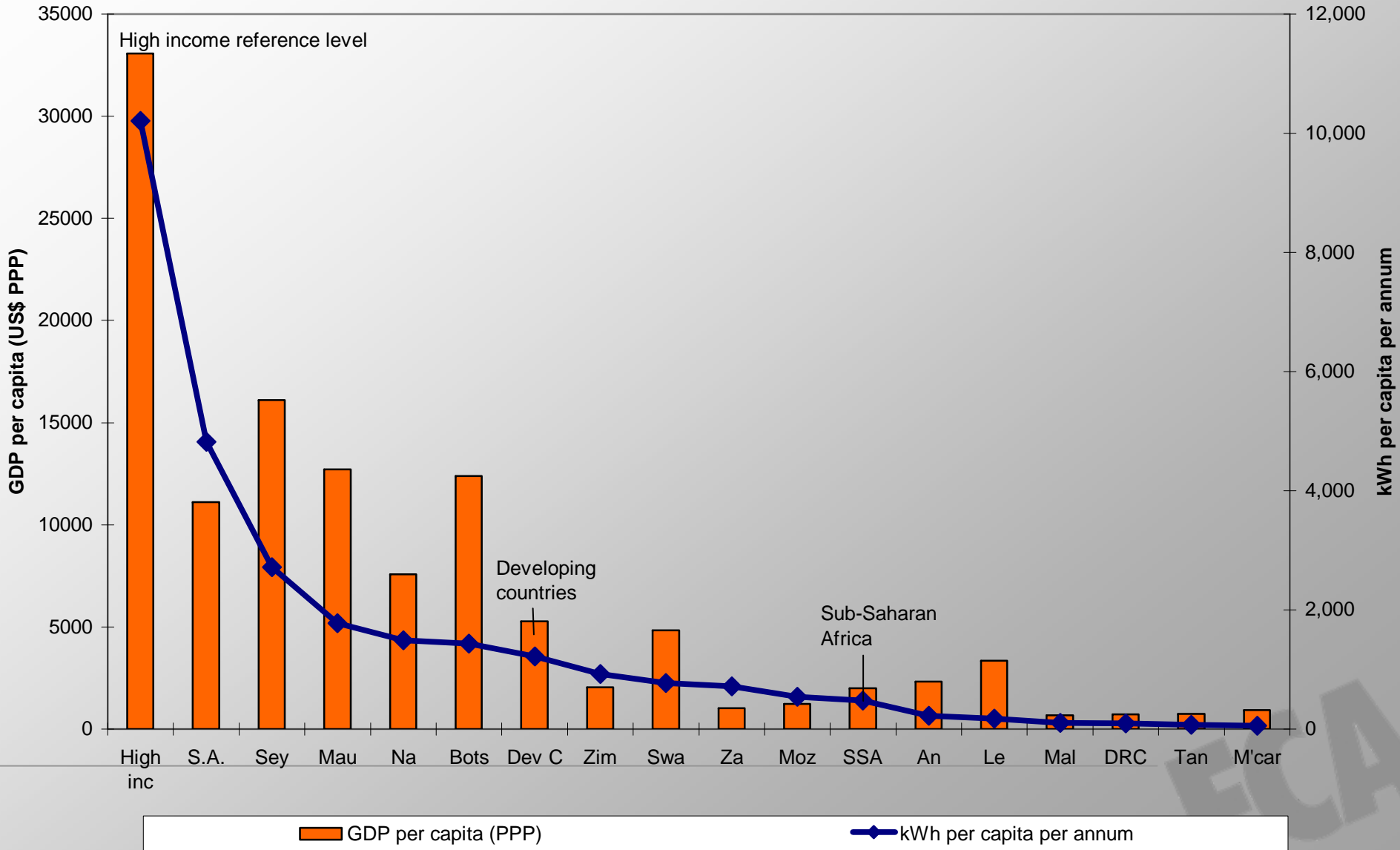


Per capita energy consumption and human development



Per capita electricity and GDP

(kWh per capita is national electricity consumption divided by population)



Misplaced poverty concerns



- Criticism this week of World Bank's \$3.75bn loan for Medupi coal fired power station
 - Earthlife Africa: “None of Medupi's output will be for the **poor**, but will be used to service multinational firms.”
- This misses a crucial point > without adequate electricity, socio-economic development in Africa will be reversed
 - Africa Infrastructure study – more than 30 countries have inadequate, irregular electricity
 - annual cost of up to 4% of GDP
- Power sector expansion and economic growth are **necessary (but not sufficient)** for poverty to be **effectively tackled**

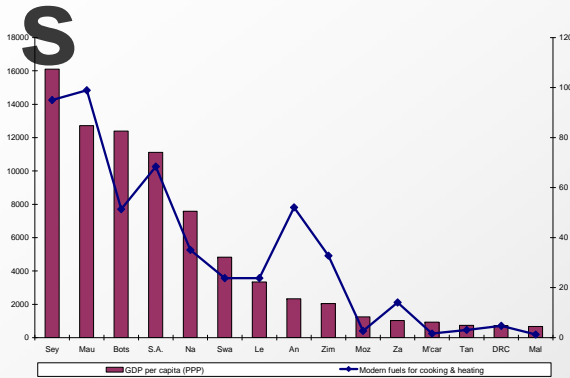
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Macro and micro interventions

- While addressing the macro-level energy constraints, countries should also be addressing immediate needs at the household and small enterprise level:
 - for sustainability, bias in micro interventions should be towards **productive use of energy**
 - People with higher incomes will have their own resources to cater for their own household energy needs
 - Higher incomes open up energy **portfolio choices**: these are to be made by households and communities, not by development agencies



Biomass



- Recognition of the continued importance of biomass is an important element of the SADC Regional Energy Access Strategy

- demographic and economic growth trends mean biomass is here to stay
- make a virtue out of this reality

- Need to change attitudes: far from being ‘inferior’, biomass is to be rebranded as a modern, desirable component of household energy portfolios

- smart new products are intended to be part of this

Questions



- In designing sophisticated new biomass devices is sufficient attention being given to the ultimate end-user:
 - ease of use
 - reliability
 - loss of non-economic attributes of traditional energy
 - acceptability for everyday use
- Is it possible to make these products affordable?
- Is modern packaging and marketing going to increase actual usage of these devices?
- What will be the uptake in
 - peri-urban areas?
 - rural areas?
- Fuel supply
 - scope is there for upstream employment?
 - sustainability of fuel supplies?
- > This workshop is a timely opportunity to discuss these and related issues

Danke schön

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