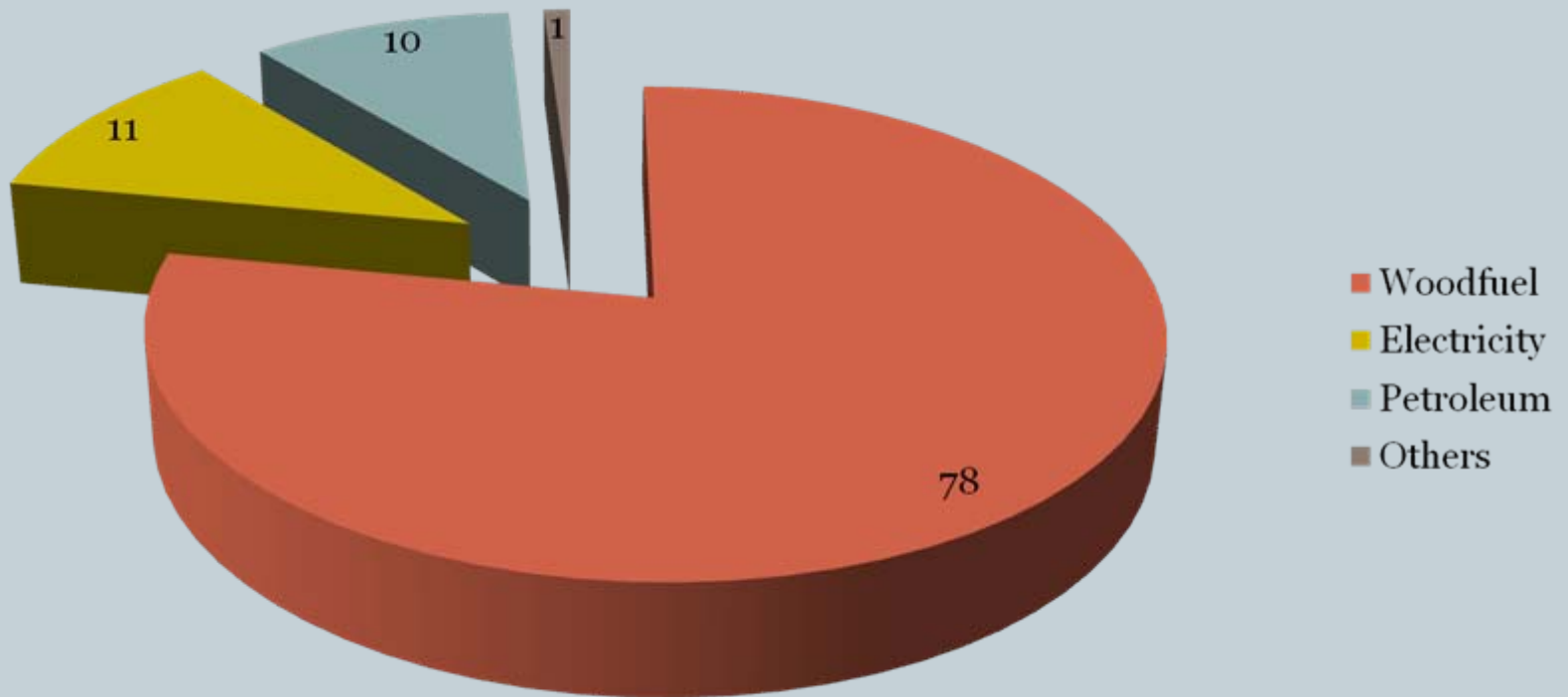




MINISTRY OF ENERGY AND WATER DEVELOPMENT

BIOENERGY POLICY IMPLEMENTATION IN ZAMBIA
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DIRECTOR- ENERGY

Zambia: National Energy mix



Policy on Bioenergy



Overall policy measure on Biomass

“ensure environmentally sustainable exploitation of biomass resources by ensuring efficiency through better management and introduction of new sources such as biofuels” through,

- a) Providing appropriate financial and fiscal instruments for stimulating production and use of biomass
 - b) Raising public awareness on the benefits and opportunities of other modern biomass energy sources and develop capacity for their implementation
- Develop a regulatory framework for biomass

Policy measures for woodfuel



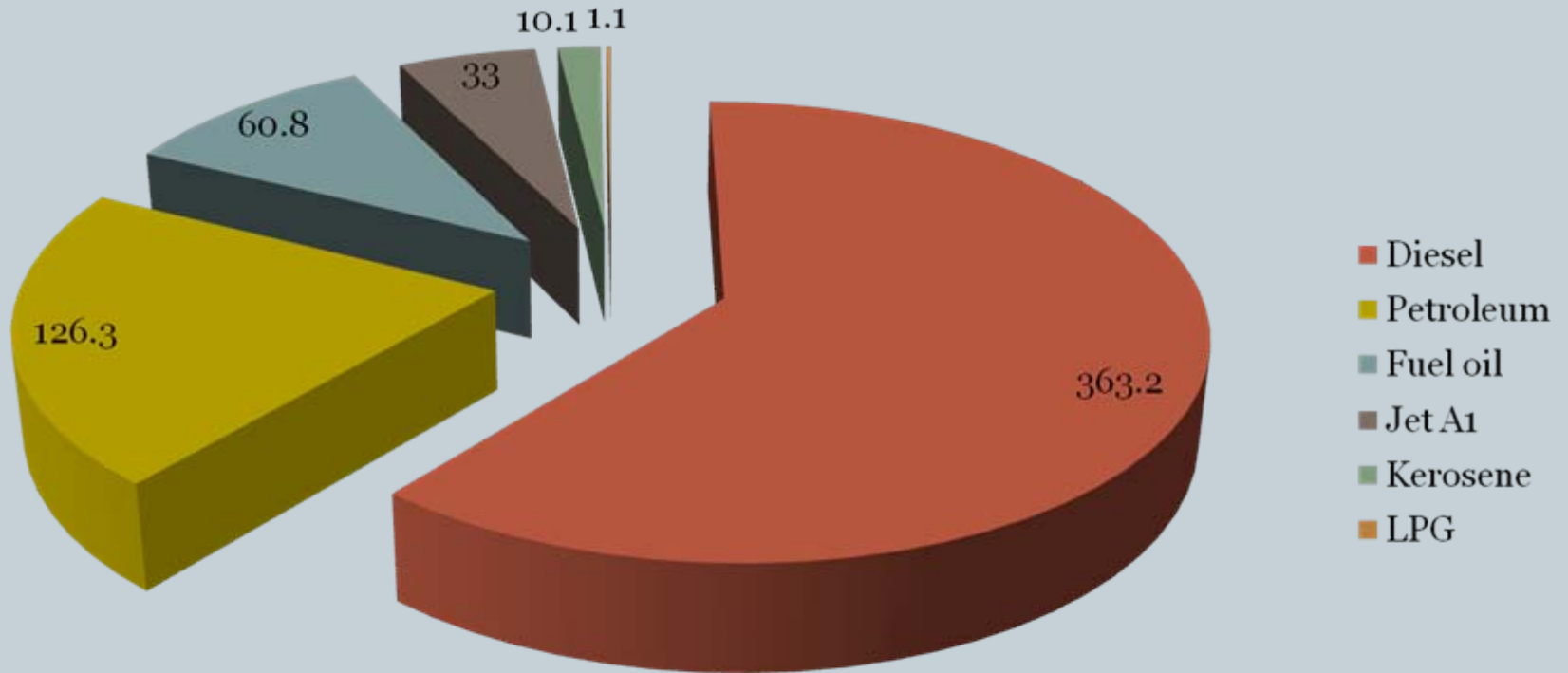
- **Ensure better management of woodlands and forests as sustainable sources of woodfuel**
- **Improve the technology of charcoal production and utilisation**
- **Promote appropriate alternatives to woodfuel and reduce its consumption**
- **Encourage use of agro, forest and sawmill residues for combustion and gasification**
- **Improve revenue collection from the woodfuel industry**

Policy measures for Biofuels



- ▶ **Make biofuels part of the National fuel mix:**
 - Introduce ethanol as a blend with petrol
 - Introduce biodiesel (straight or blend with diesel) in the transport and other
- ▶ **Ensure security of supply and stabilization of prices of fuels by promoting the utilization of biofuels for transport as an alternative to petroleum**

Petroleum consumption 2007 (000' TOE)



Biofuel policy measures cont...



- **To ensure availability of data and information on market demand, resource assessment and applicability of biofuels**
- **Provide a legal and institutional framework for the biofuels subsector**
- **Support investment in Biofuels industry through appropriate incentives**

Bioenergy implementation measures

- Biofuel policy objectives have been defined
- Biofuels are defined as 'fuel' under Energy Regulation Act
 - Minister of Energy recently issued a SI in 2008
 - The ERB has mandate to offer regulatory oversight to the sub-sector
- The Ministry of Energy & Water Develop. is developing a long term Energy Strategy (2009-2030) that includes biofuels
- Within the national economy, biofuels are to be defined as a priority sub-sector

Issues in biofuels



- **Can we produce biofuels in an environmentally friendly way?**
 - **Issues**
 - ✦ Biofuels can contribute to increased emissions of green house gases e.g. use of fertilizer for higher yields
 - ✦ Biofuels can lead to loss of biodiversity
 - **Fact**
 - ✦ Is there any environmental friendly energy source?
 - ✦ Isn't general agriculture currently contributing to environmental degradation?
 - **Possibility**
 - ✦ Can biofuels lead to sustainable agriculture?

Issues continue...



- **Can there be sufficient land for both food crops and biofuels?**
 - Fact – there is nothing that is sufficient in the world
 - Land is a finite resourceto be used wisely
- **Can biofuels be produced and used profitably?**
 - With constant changing oil prices (from US\$147 in July 2008 to less than US\$50 in early 2009, now about US\$60/barrel) can investments be secured?

Issues



- Can we produce and use biofuels without jeopardising food security?
 - Is Zambia food secure?
 - ✦ No – our agricultural system is under-producing
 - We invest very little in agriculture and expect to harvest more
 - You can only reap where you have sown!
 - ✦ Can biofuels contribute to productive agriculture?

Economic meltdown and Bioenergy: current issues in Zambia



- **There is an increase in job losses;**
 - More people will shift to use of woodfuel
 - ✦ To impact on Zambia's goal to reduce dependence on woodfuel from over 70% now to less than 40% by 2030.
 - Evidence in the past have shown that most urban people losing jobs go into charcoal production as an alternative income generating source
 - ✦ This creates pressure of depleting on forest resources
- **Main investors in biofuels are closing down;**
 - This will impact negatively on small scale farmers engaged in out-grower schemes
 - ✦ Who will provide the farming inputs for energy crops?
 - ✦ Who buys the energy crops which are already available?

THE END



THANK YOU FOR YOUR ATTENTION