

# Cause of poverty or driver of development?

## *The role of charcoal in national energy strategies for Malawi and Tanzania*



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# High levels of biomass energy dependency

- **Malawi:** 89% of energy demand met by biomass fuels (2008)
- **Tanzania:** >90% (2003)
- Firewood share is levelling off in favour of charcoal - 6.5 % p.a. growth in Malawi, 9% in Tanzania



# High value of charcoal industry

## Malawi:

- Charcoal trade worth \$63 mill./yr
- Biomass energy industry employs 133,000 people

## Tanzania:

- Charcoal trade worth \$650 mill./yr  
(coffee & tea generates \$100 mill./yr)
- Employs >100,000 people



# Developmental benefits of charcoal

- capitalises on available assets – land, sunshine, labour
- suited to decentralised production and processing
- generates employment and income flow to rural areas
- shortens distances from source to market, reducing supply chain risks
- saves on foreign currency for imported energy
- conditionally renewable & climate-friendly  
(if sustainability standards are met)



# Missed opportunities

- Governments could generate much more revenue from charcoal (none collected in Malawi; \$100 mill./yr uncollected in Tz)
- Significant untapped interest from development partners in:
  - success stories in the charcoal sector
  - better governance (e.g. in revenue collection)
  - supporting private enterprise
  - “M4P” to address systemic bottlenecks to business
  - “bottom of the pyramid” solutions
  - synergies with PFM movement (with knock-on benefits)
  - links to REDD and other carbon opportunities
  - bio-char potential



# Private sector interests

*e.g. "3<sup>rd</sup> generation" stoves*

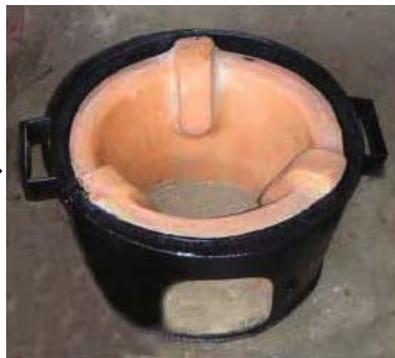
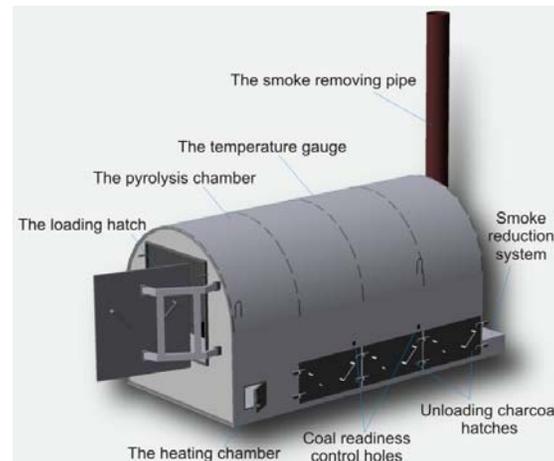
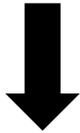
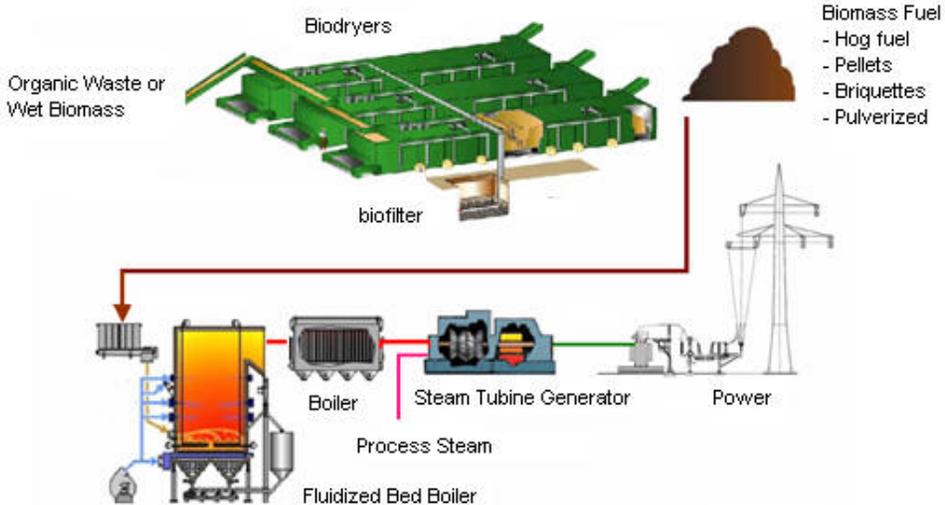
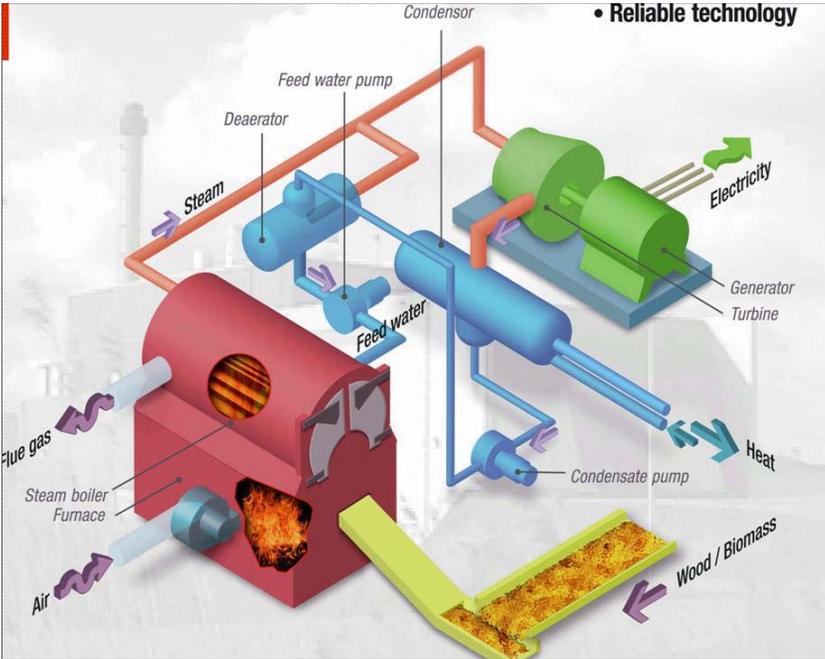


ILLUSTRATION: BRYAN CHRISTIE

# Better conversion methods



# Industrial heat & power plants



# *Diversification of energy sources & suppliers*

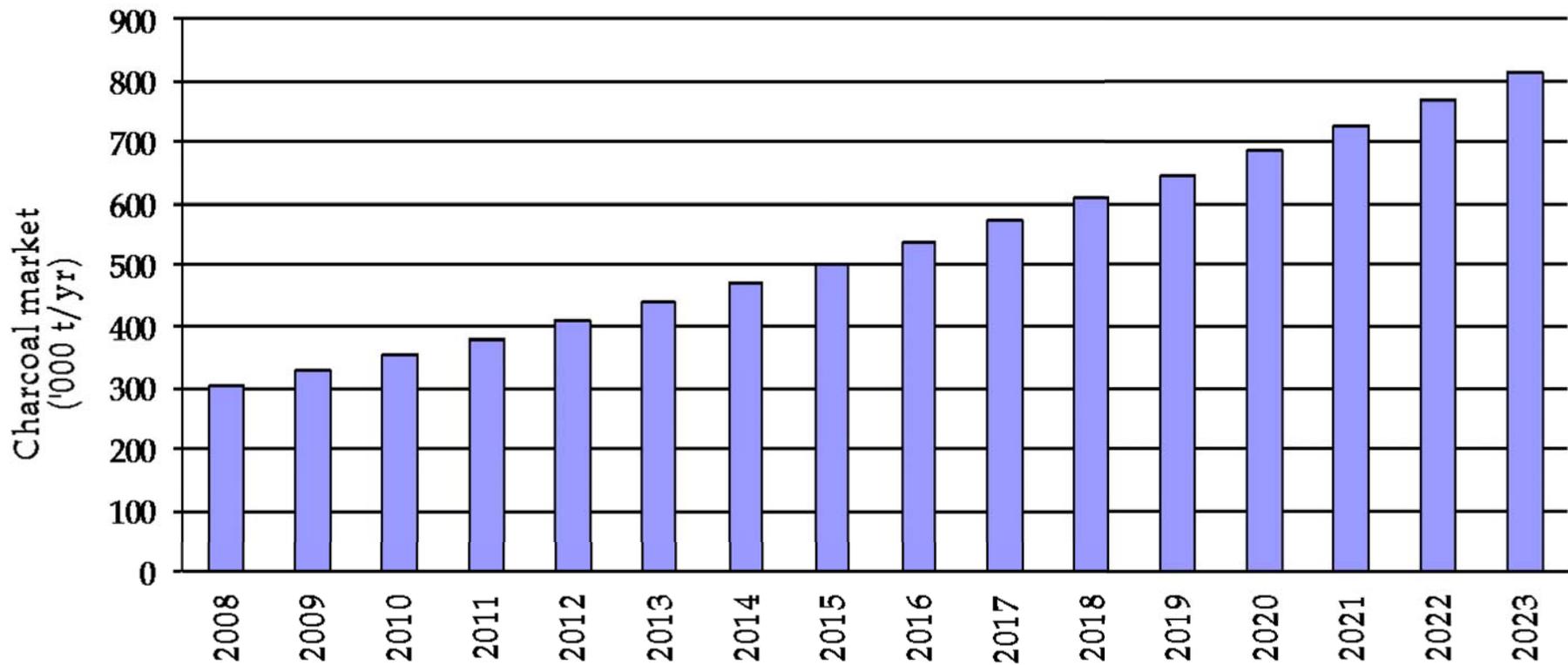


# But...

- Charcoal seen as a “traditional” source of energy
- Associated with poverty, under-development and environmental degradation
- Generates little or no formal revenue
- National Energy Policies endorse a shift to “modern” forms of energy
  - Malawi: Reduce biomass to 50% of energy demand by 2020
  - Tanzania: Increase non-biomass fuels from 10% to 20% by 2015
- Charcoal seems to be tolerated until alternatives can be found

# But...

By 2023, charcoal demand in Malawi will double, and may triple if uptake of electricity for cooking slows down



## and in Tanzania...

- Number of people living in poverty is rising
- Many consumers cannot afford alternatives (kerosene, LPG)
- People also like cooking with charcoal, especially in towns
- Therefore consumption is growing at 9% p.a.
- 71% of Dar residents cooked with charcoal in 2007 (47% in 2001)



# Policy conclusion

- Charcoal already makes a significant contribution to national economies and rural development in Malawi and Tanzania
- This contribution could be massively increased, capitalising on donor interest and missed commercial opportunities
- But charcoal is perceived negatively and national policies promote a switch to other energy sources
- This is not proving realistic; neither is it entirely rational



# What needs to change?

## 1. National Energy Policies

Focus on fuel switching is unrealistic; leaves charcoal industry marginalised, inefficient and quasi-legal.

*Requires shifts in perception among high-level policy-makers:*

- *modelling and projections of energy demand to convey reality*
- *sound data on lost tax revenues and economic benefits*
- *exposure to clean, modern biomass energy industries*
- *engagement beyond NR and energy sector*
- *working with influential champions for change*

# What needs to change? (cont.)

## 2. Economic incentives

Playing field not level: Legal operators penalised, tax evaders rewarded, “big men” control industry

*Ideas:*

- *tax breaks/subsidies for start-ups in charcoal & alternative fuels*
- *VAT-exemption on charcoal and briquettes*
- *more pilots on sustainable charcoal for VERs, incl. within REDD*
- *decentralised resource management to incentivise community control, e.g. PFM*
- *sustainable branding and certification of supply chain*
- *more professional, upscale marketing*

# What needs to change? (cont.)

## 3. Charcoal pricing:

Typically trades at 50% of true cost:

- prevents entry of modern, capital-intensive players
- deters efficiency improvement in production and use
- undermines efforts to promote sustainable harvesting, improved kilns, better stoves, industrial applications, etc

*Requires prices to rise so competition can develop:*

- *independent monitoring of forest law enforcement & governance*
- *target setting for charcoal revenue in performance assessment frameworks*
- *out-sourcing of revenue collection to private sector*
- *new systems for licensing and control (e.g. coloured bags, tags)*

*In the end, charcoal needs to cost more!*