

An analysis of the role of the carbon neutral public sector in reducing greenhouse gas emissions in New Zealand

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OVERVIEW

- Background
- Methods
- GHG Inventories
- GHG Reduction plans
- Discussion
- Conclusions
- But first...

CARBON NEUTRALITY ENTERS FOLKLORE...



- UK, 29 June, 2007: “Chesney shows Roy the report from the eco-project he's been doing for school. Roy's café fails to come up to scratch in the eco-department and Roy feels he needs to do more to help the environment and reduce his carbon footprint, perhaps by wearing smaller shoes, who knows.” (Corrieblog)
- Roy then sits down at a table and begins plans for the cafe to **"be carbon neutral by 2008"**.



...BUT BEFORE THAT NZ ANNOUNCES

- “I believe that New Zealand can aim to be the first nation to be truly sustainable—across the four pillars of the economy, the society, the environment, and nationhood. I believe that we can aspire to be carbon neutral in our economy and way of life.” Helen Clark (13 February, 2007).
- Six government departments to be carbon neutral by 2012; the remainder (28) to develop plans during that period

SO WHAT IS CARBON NEUTRALITY?

- *These three steps form the core of the Greenhouse Gas Protocol*
- MEASURE emissions
- REDUCE as far as is practicable
- OFFSET remaining emissions

MORE FORMALLY...

- A carbon neutral organisation is “...one that causes no net accumulation of CO₂ emissions to the atmosphere. Therefore carbon neutrality allows emissions to be netted off in some other location, a process which is called ‘offsetting’. (SDC, 2005)

HOWEVER...

- “...the SDC would caution against a carbon neutrality policy which is focused solely on carbon offsetting. As the aim should be to reduce overall emissions over time, simply offsetting emissions without a carbon management strategy in place is at best misconceived, and at worst counter-productive.” (SDC, 2005).

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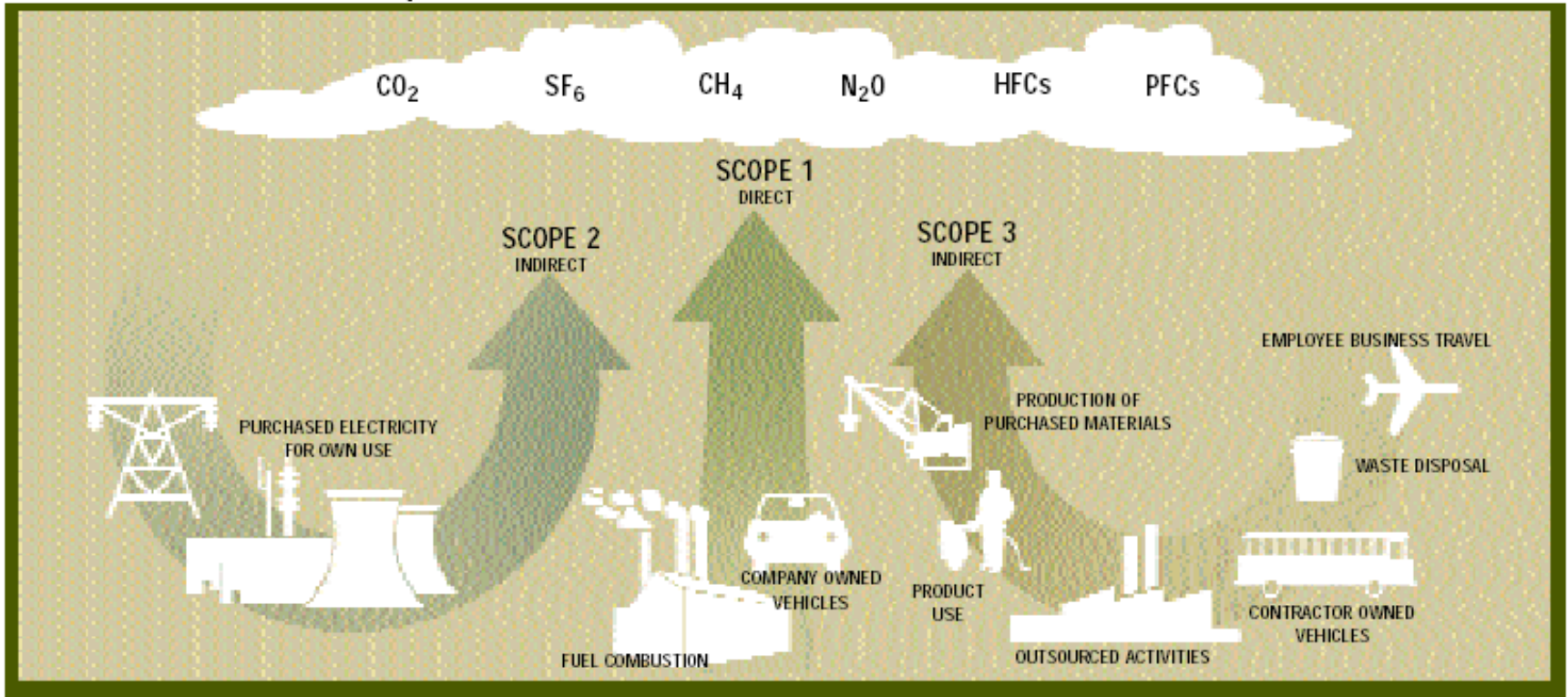
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- Scope 3 (optional): e.g. air travel; commuting...

FIGURE 3. Overview of scopes and emissions across a value chain



GOING CARBON NEUTRAL

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GOING CARBON NEUTRAL

- REDUCE: how far is practicable?
- OFFSETS: biomass – limited capacity;
CDMs – not emphasised; concerns

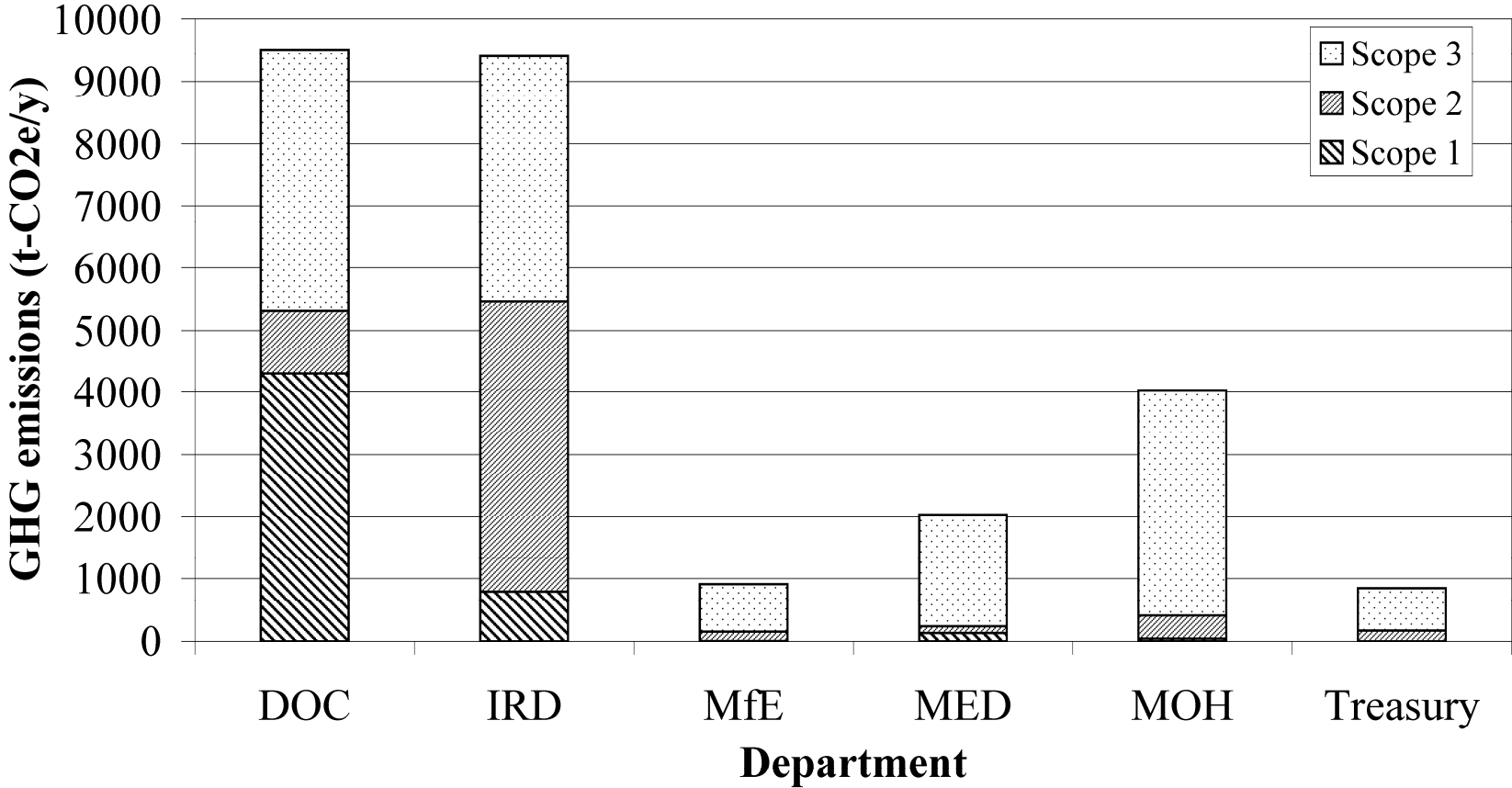
METHODS

- Interviews with key people at: DOC, IRD, MED, MFE, MOH and Treasury
- Analysis of their inventories and plans



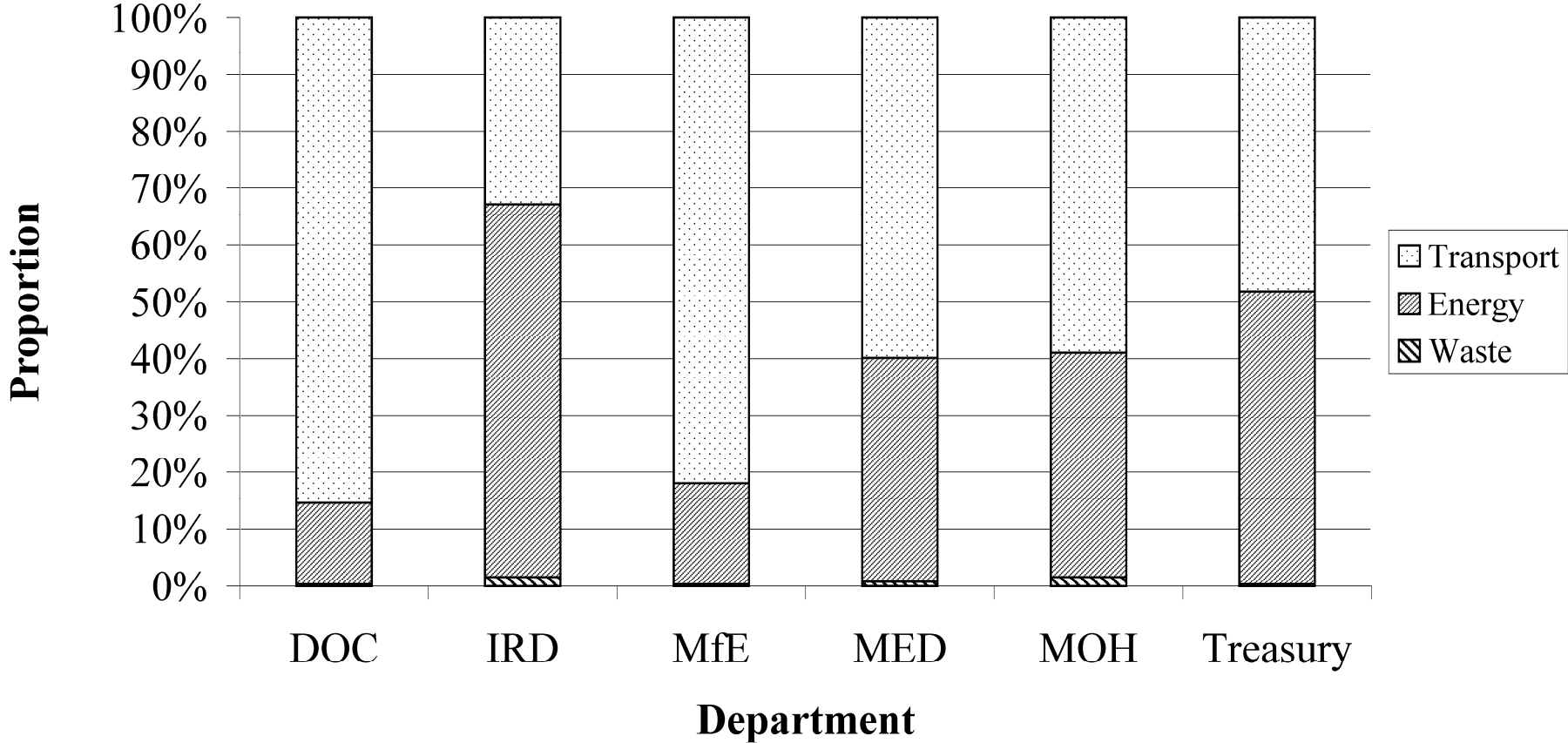
INVENTORY RESULTS

Figure 1: GHG emissions weights by scope



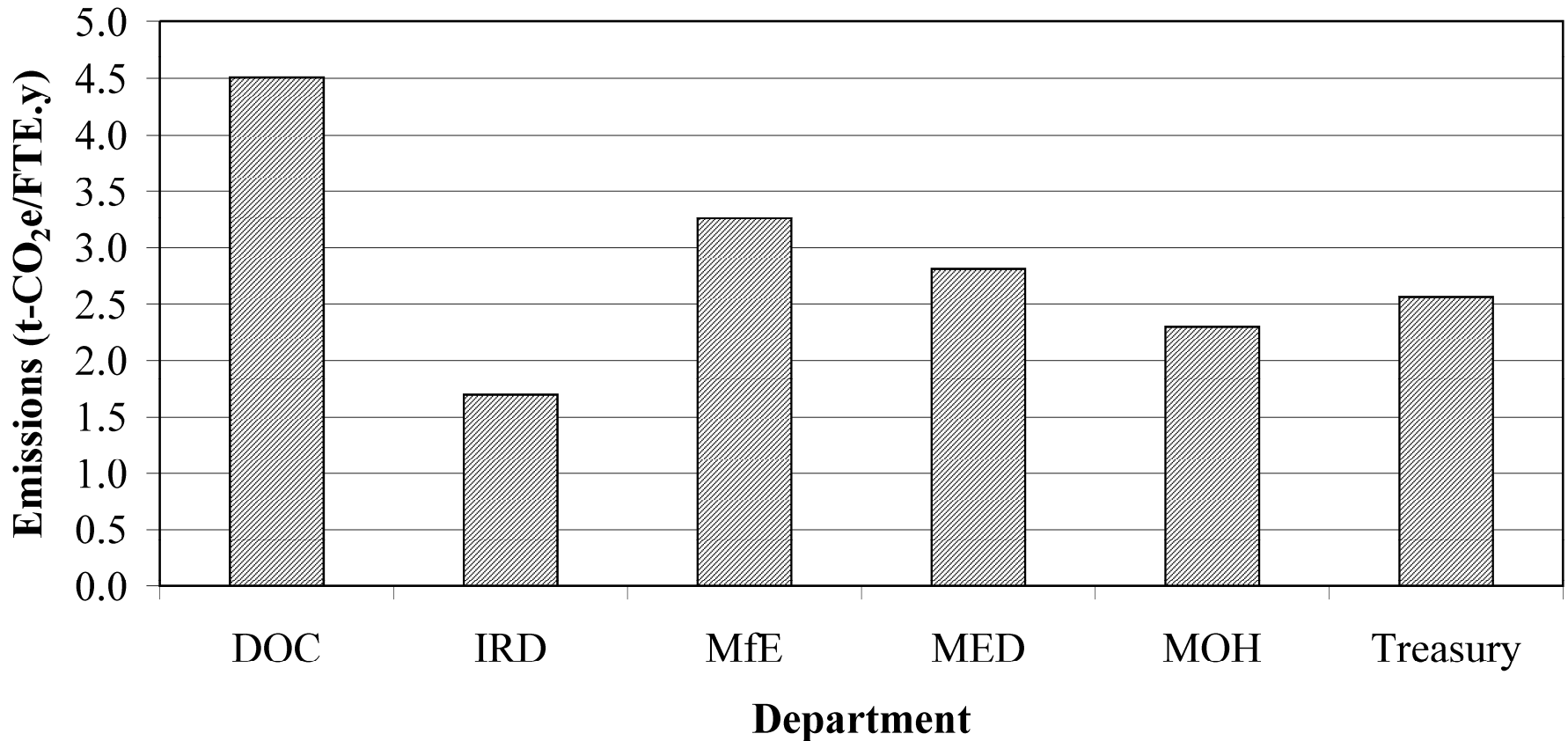
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Figure 2: Relative GHG emissions by source



INVENTORY RESULTS

Figure 3: GHG emissions per FTE



PLANS

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target year: 2012

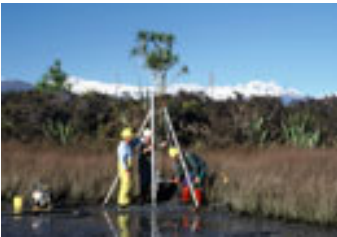
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- DOC: 19.3% reduction (1837 t-CO₂e)

ACTIVITIES



1080 aerial possum control operation for Tb



PLANS

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- DOC: 19.3% reduction (1837 t-CO₂e)
- MED: 13.2% reduction (270 t-CO₂e)
- IRD, MfE: activity and efficiency targets
- MOH, Treasury: largely descriptive targets

INTERVIEW ISSUES

- Multi-disciplinary roles
- Targets: quantitative vs qualitative
- Unavoidable activities: safety, legal compliance, economic, client contact issues
- Data: records; boundaries
- Leading the field: learning by doing; leadership role of MfE

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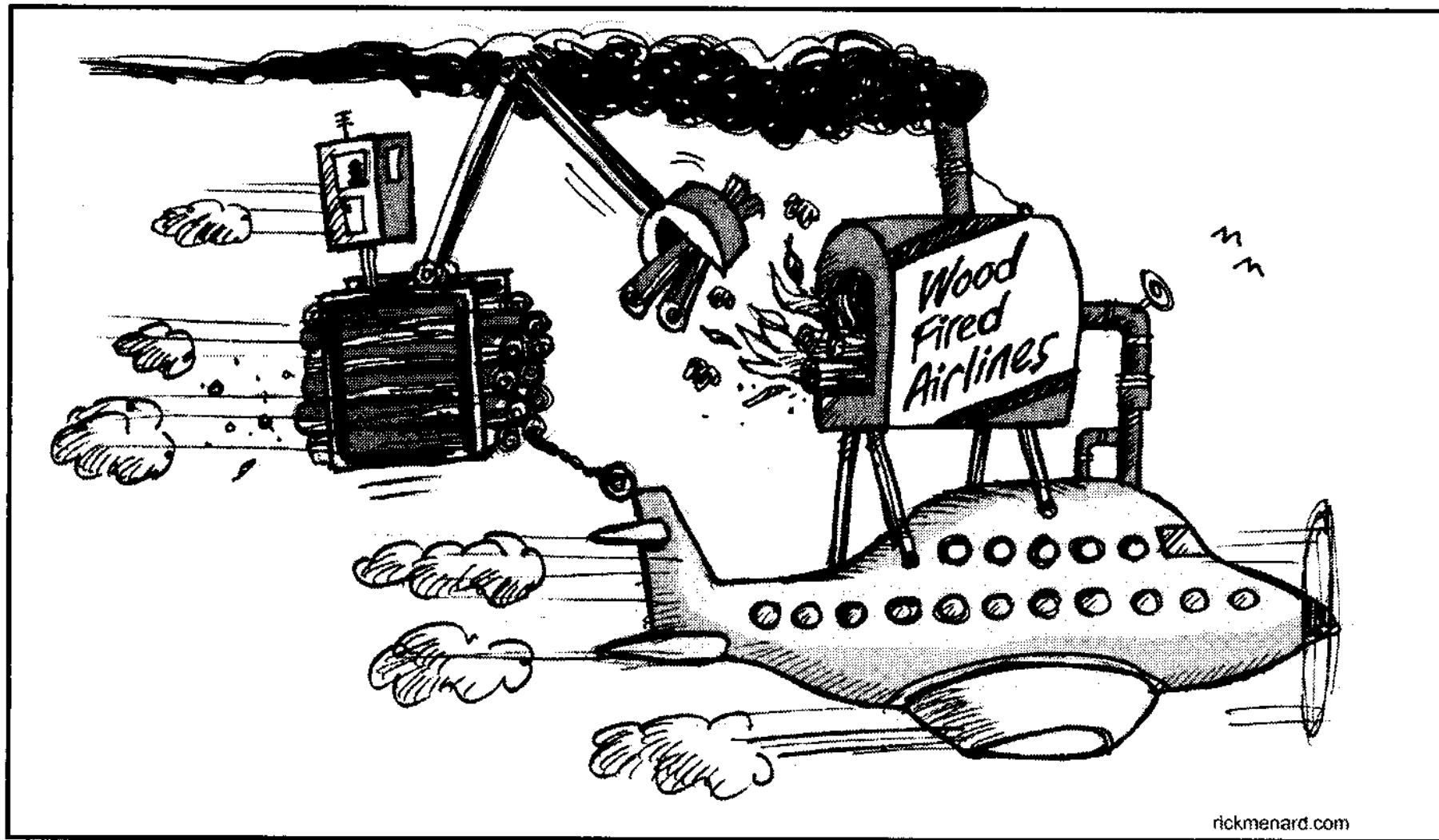


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- Leading by example
- Offset threshold: < 20% max
- Electricity
- Transport



RICK'S VIEW by Rick Menard



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- Leading by example
- Offset threshold: $< 20\%$ max
- Electricity
- Transport
- Paradigm shift?



CONCLUSIONS

- Clear and sound protocols; admirable progress by April, 2008
- Inventories dominated by transport; electricity significant; waste <2%
- Tensions evident between service commitments, service growth and emissions reductions

CONCLUSIONS 2

- Plans generally indicate “business-a-little-less-than-usual”; but DOC and IRD showing signs of paradigm shift
- Electricity emissions could reduce to virtually zero through 100% renewable generation; political leadership needed
- Transport: difficult (particularly air travel); political leadership needed

THANKS FOR LISTENING

Any questions 