

## **New Zealand's Energy Performance within an International Context**

**Transport:**



### **What are the impacts of human settlements?**

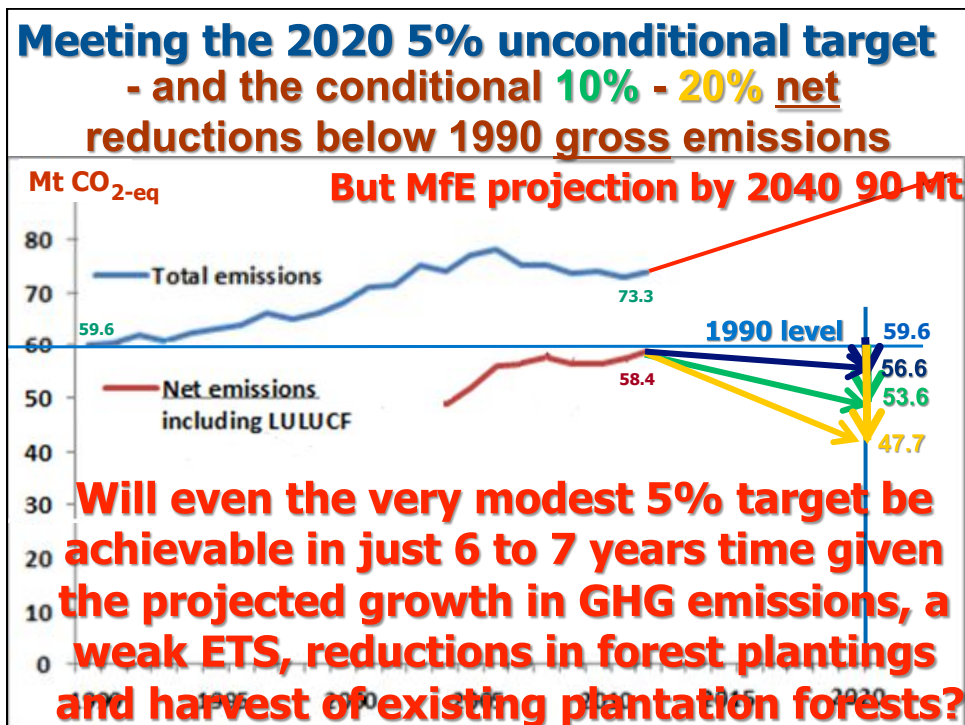
- **Mitigation in urban areas is most effective when planning strategies and cross-sectoral policy instruments are aligned to increase accessibility, promote mixed land-use, and reduce urban sprawl.**
- **In established cities and towns, there is potential for retrofitting existing urban forms and infrastructure to reduce building and transport emissions.**

**If our planet is to have any chance to stay below the 2°C agreed target level, the IPCC (2007) collective emission reduction targets for developed countries need to be:**

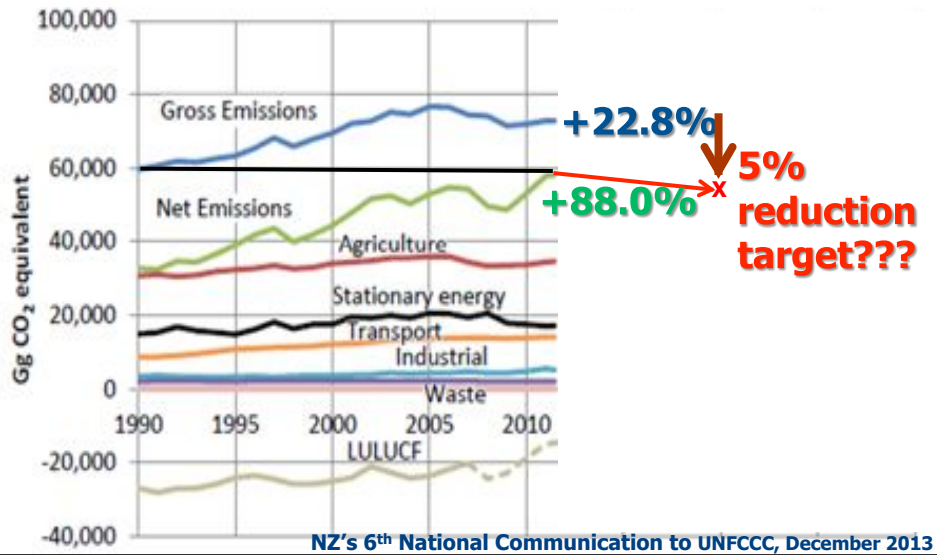
**25 - 40% reduction below 1990 levels by 2020.**  
**80 - 95% reduction below 1990 levels by 2050.**

**New Zealand's present targets:**

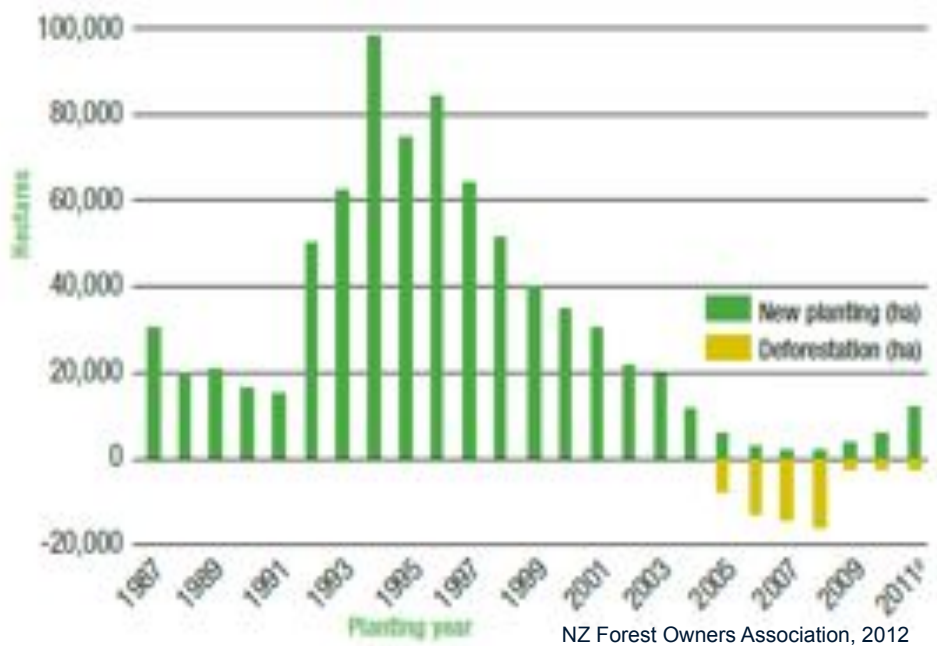
- > 5% reduction below 1990 levels by 2020;
- > 10-20% net emission reduction below gross 1990 levels by 2020 - but with conditions;
- > 50% reduction below 1990 levels by 2050.



## NZ's actual GHG emissions 1990-2012 and projections to 2030.



### NZ new forests and deforestation





### Mitigation role for AFOLU?

- A variety of low cost, land-based mitigation options are outlined.
- The AFOLU sector also provides options to remove carbon dioxide from the atmosphere through afforestation, soil carbon increase, and bioenergy CO<sub>2</sub> capture and storage.
- These options play a key role in low-stabilization scenarios and can influence other mitigation efforts.
- Bioenergy annex: There is potential from more bioenergy and biofuels but the total is highly uncertain due to land competition and sustainable biomass production issues.

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Greenhouse gas emissions:



So what should our emission reduction targets be?