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MAKING THE EU WORK  
FOR PEOPLE & FORESTS



Keeping forests out of offset  
mechanisms

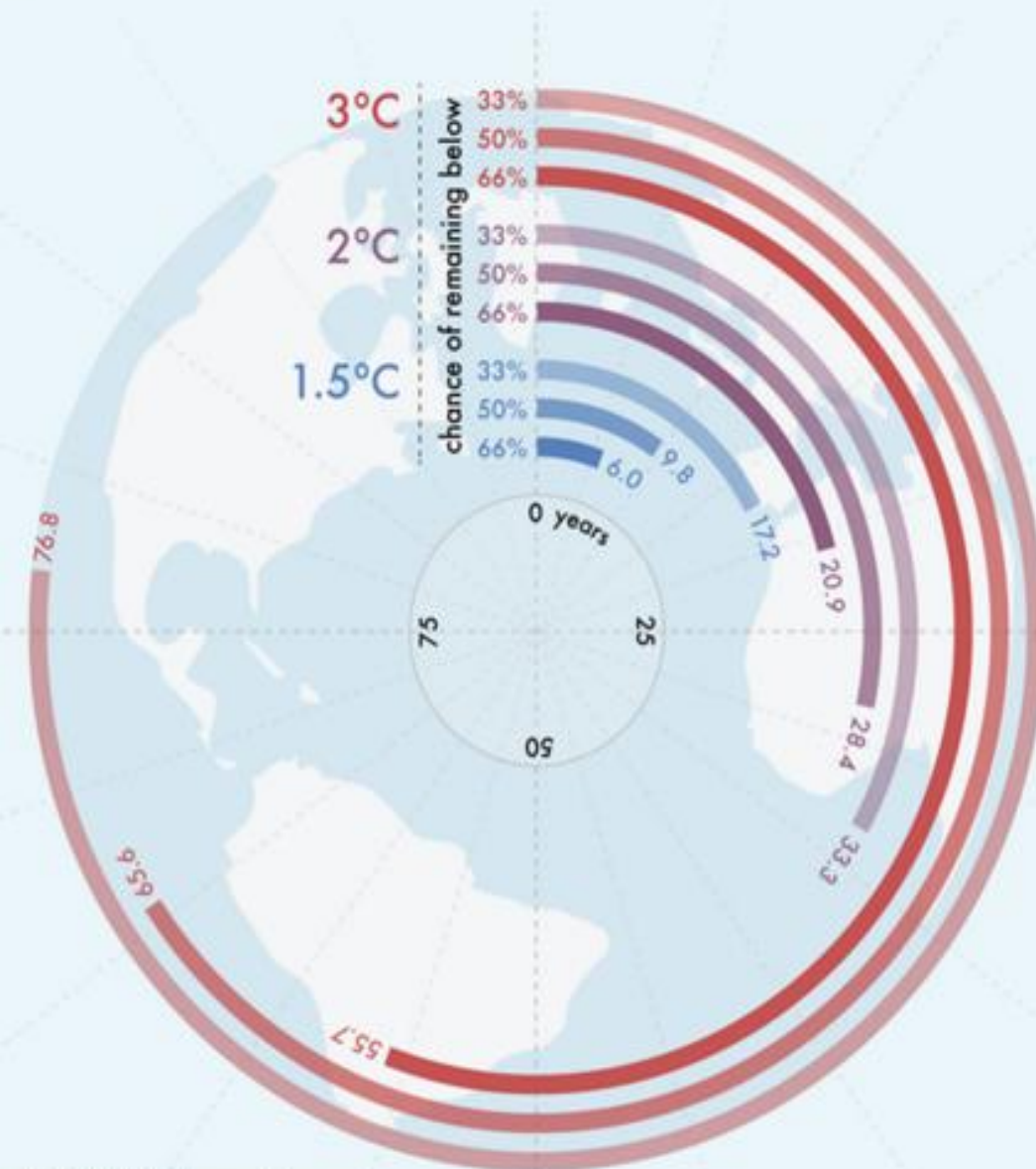






# Carbon Countdown

How many years of current emissions would use up the IPCC's carbon budgets for different levels of warming?



***"We have been overestimating the budget by 50 to more than 200%. At the high end, this is a difference of more than 1,000 billion tons of carbon dioxide"***

Joeri Rogelj et al. Nature Climate Change, 2016.



# Residence time of CO<sub>2</sub> in the atmosphere

## Untangling the confusion around land carbon science and climate change mitigation policy

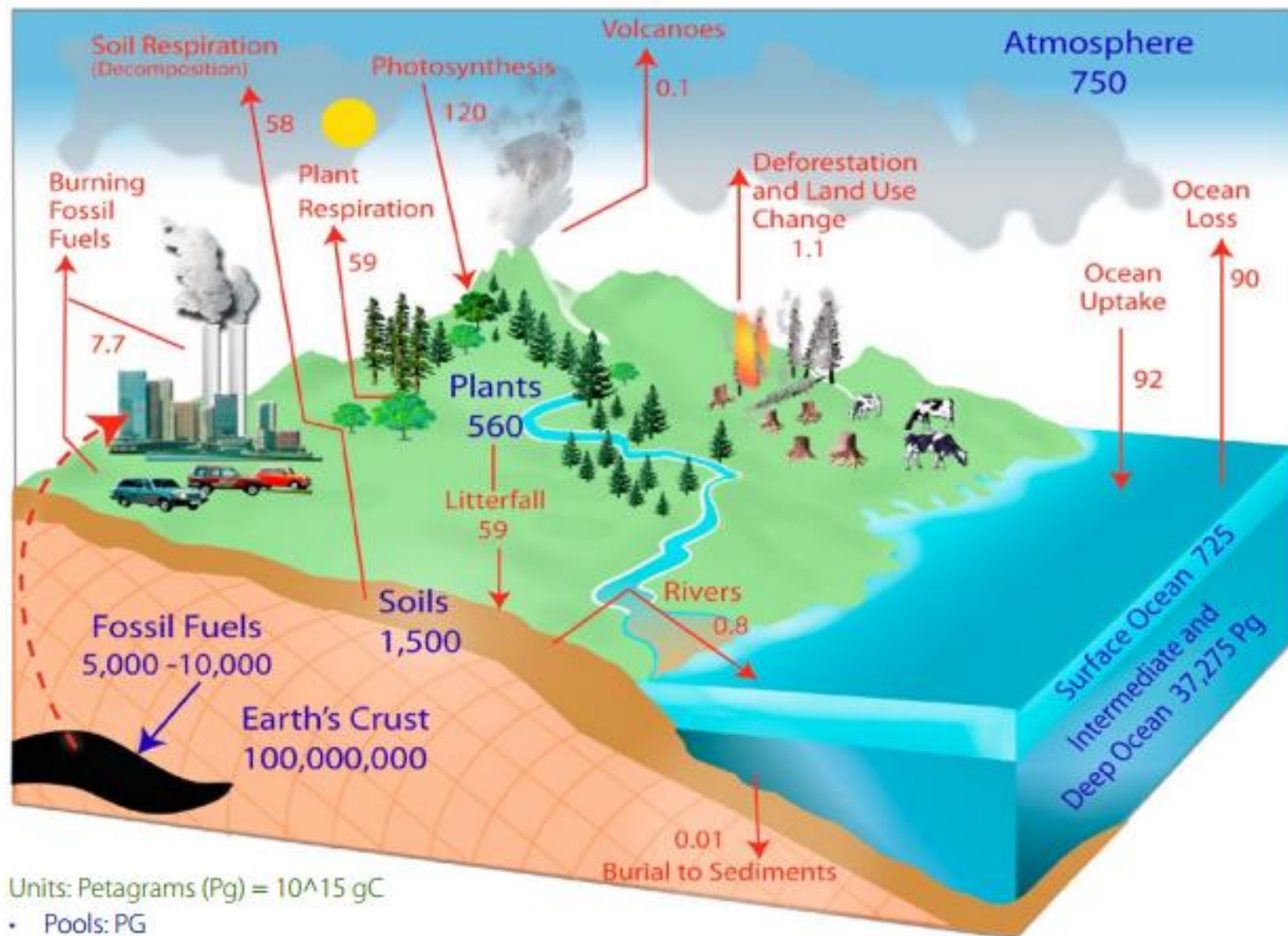
Brendan Mackey<sup>1\*</sup>, I. Colin Prentice<sup>2,3</sup>, Will Steffen<sup>4</sup>, Joanna I. House<sup>5</sup>, David Lindenmayer<sup>4</sup>, Heather Keith<sup>4</sup> and Sandra Berry<sup>4</sup>

Depletion of ecosystem carbon stocks is a significant source of atmospheric CO<sub>2</sub> and reducing land-based emissions maintaining land carbon stocks contributes to climate change mitigation. We summarize current understanding about h

lifetime conceals more than it reveals. CO<sub>2</sub> is taken up from the atmosphere by several distinct processes that have hugely different time constants<sup>7,8</sup>. Part of it is taken up by the land, and part dissolves in the ocean surface and mixes to the deep ocean. About 60% is removed from the atmosphere on a time scale of 100 years but it takes a very long time to remove the remaining fraction. A 'pulse' or unit of CO<sub>2</sub> emitted to the atmosphere is only fully removed from



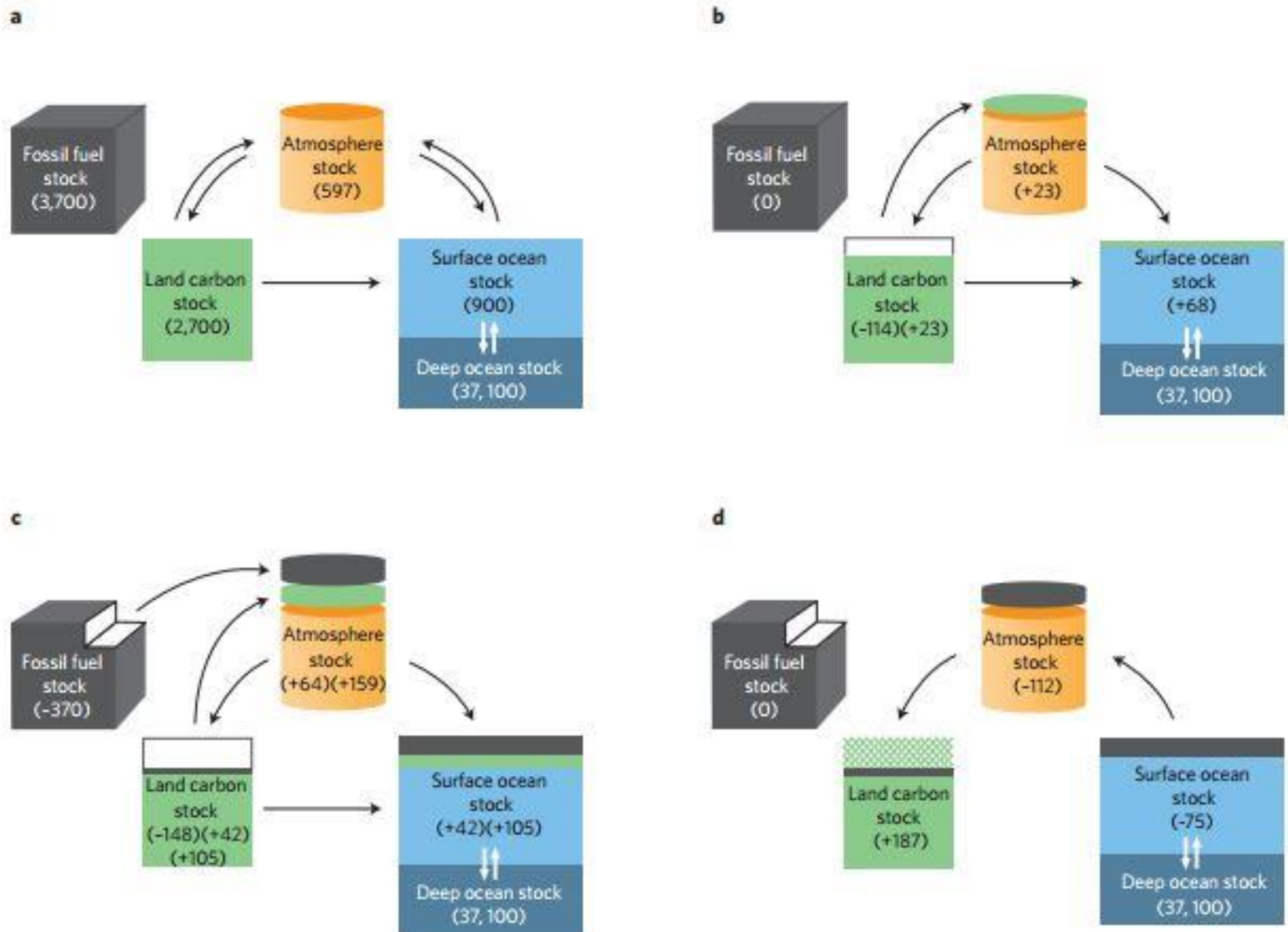
The carbon cycle shown in petagrams, designed by the GLOBE Carbon Cycle Project.



Units: Petagrams (Pg) =  $10^{15}$  gC

- Pools: PG
- Fluxes: Pg/year

Data Sources: Adapted from Houghton, R.A. Balancing the Global Carbon Budget. *Annu. Rev. Earth Planet. Sci.* 007.35.313-347, updated emissions values are from the Global Carbon Project: Carbon Budget 2009.



Source: Mackey et al. Untangling the confusion around land carbon science and climate change mitigation policy, Nature Climate Change, 2013

# ICAO GMBM – principles?

- No double-counting:  
100 countries include  
land-use and forests  
[www.fern.org/double-counting](http://www.fern.org/double-counting)
- Permanent
- Do no harm





# ICAO GMBM – principles?

- No double-counting:  
100 countries include  
land-use and forests
- **Permanent**
- Do no harm





**2003, Portugal: 417,000 ha affected**





**Where is the forest  
tipping point?**



**2012, UK: Ash Die-back  
130,000ha affected**





# ICAO GMBM – principles?

- No double-counting:  
100 countries include  
land-use and forests
- Permanent
- **Do no harm**



# Land-based offset projects are never conflict-free!

Because the 'product' being created and traded is the *absence of an activity* (emissions are avoided that otherwise *would have been* released; forests are protected that otherwise *would have been* destroyed) – *permanent surveillance and monitoring* necessary





# Recognising rights



In Brazil, deforestation in indigenous community forests from 2000 to 2012 was less than 1 percent, compared with 7 percent outside them.

Indigenous community forests contain 36 percent more carbon per hectare than other areas of the Brazilian Amazon

**Source:**

**<http://www.wri.org/sites/default/files/securingrights-full-report-english.pdf>**



# Improving governance

[www.fern.org/storiesfromtheground](http://www.fern.org/storiesfromtheground)



- VPA in Indonesia led to 75% decrease in illegal logging
- In Liberia, VPA led to cancellation of 2million ha of illegal concessions and head of the Forestry Development Authority has been jailed



**“Half of all recent tropical deforestation has been illegal conversion for commercial agriculture”**

Forest Trends, 2014



## EU Action Plan on Deforestation needed!

- Almost 70 per cent of deforestation in the tropics is for commercial agriculture, 50% of this is illegal
- EU imported beef, soybeans, palm oil and leather from illegally deforested land in 2012 worth 6 billion EUR
- EU imports 36% of deforestation embodied in internationally traded agricultural commodities







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