

## Twitter Thread by Robbie Andrew



**Robbie Andrew**

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### "NO LONGER BEST IN THE WORLD"

UNEP's new Human Development Index includes a new (separate) index: Planetary pressures-adjusted HDI (PHDI). News in Norway is that its position drops from #1 to #16 because of this, while Ireland rises from #2 to #1.

Why?

<https://t.co/aVraIEzRfh>



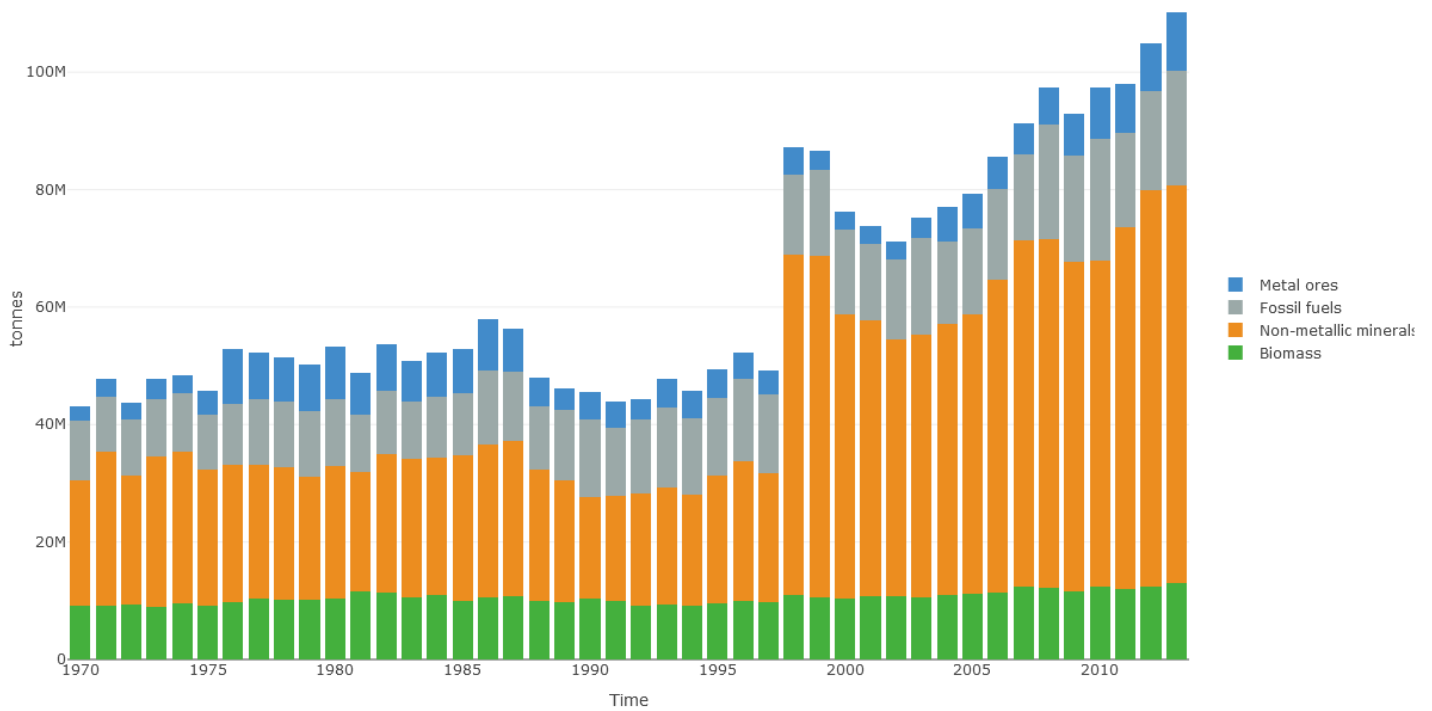
IKKE Lenger best i verden: I år rokker FNs Human Development Index ved den norske idyllen. Norge raser på lista over verdens beste land.

Check out Norway's 'Domestic Material Consumption'. Fossil fuels are no different here to Ireland's. What's different is this huge 'non-metallic minerals' category.

(Note also the jump in 1998, suggesting data problems.)

<https://t.co/5QvzONbqmN>

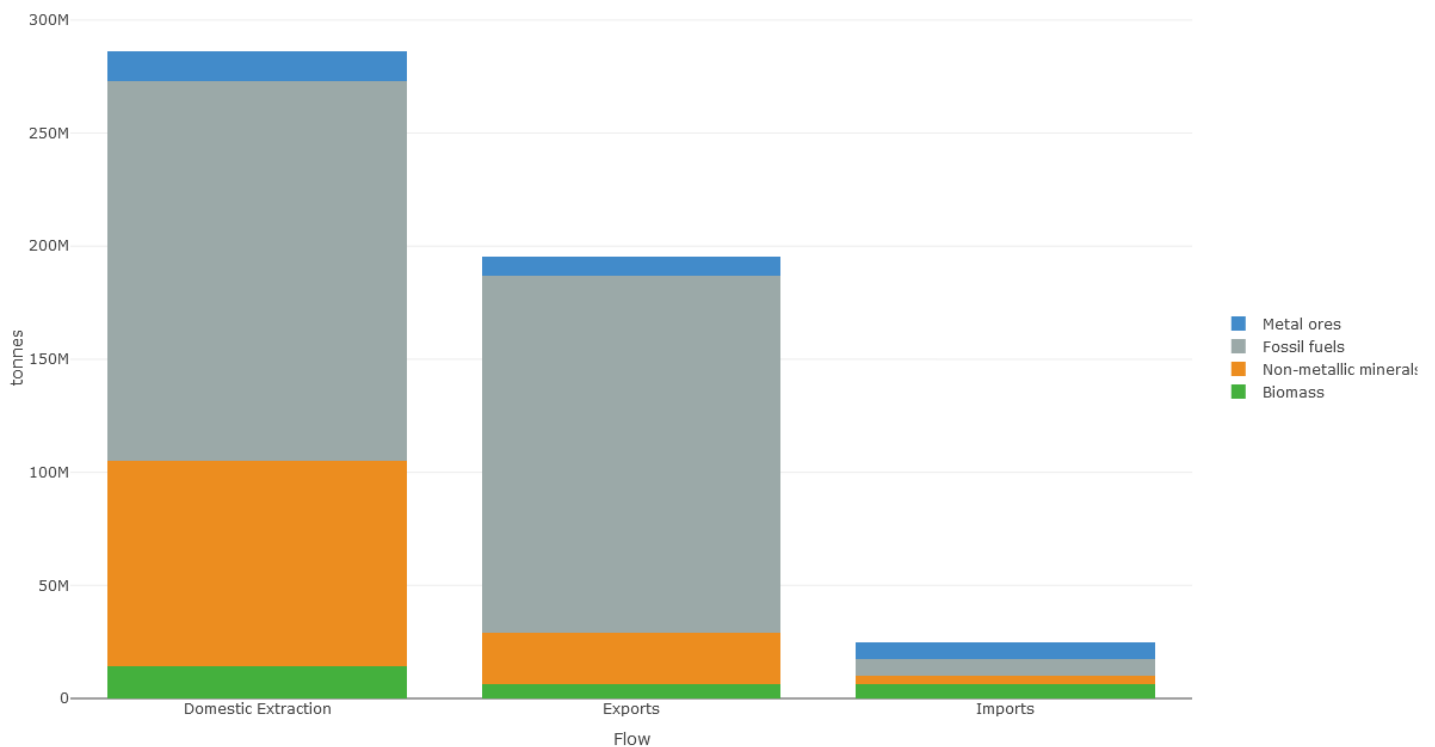
Domestic Material Consumption of Norway in 1970-2013, by material group



In Norway's case, it looks like the apparent consumption equation (production+imports-exports) for non-metal minerals is dominated by production: extraction of material in Norway.

<https://t.co/5QvzONbqmN>

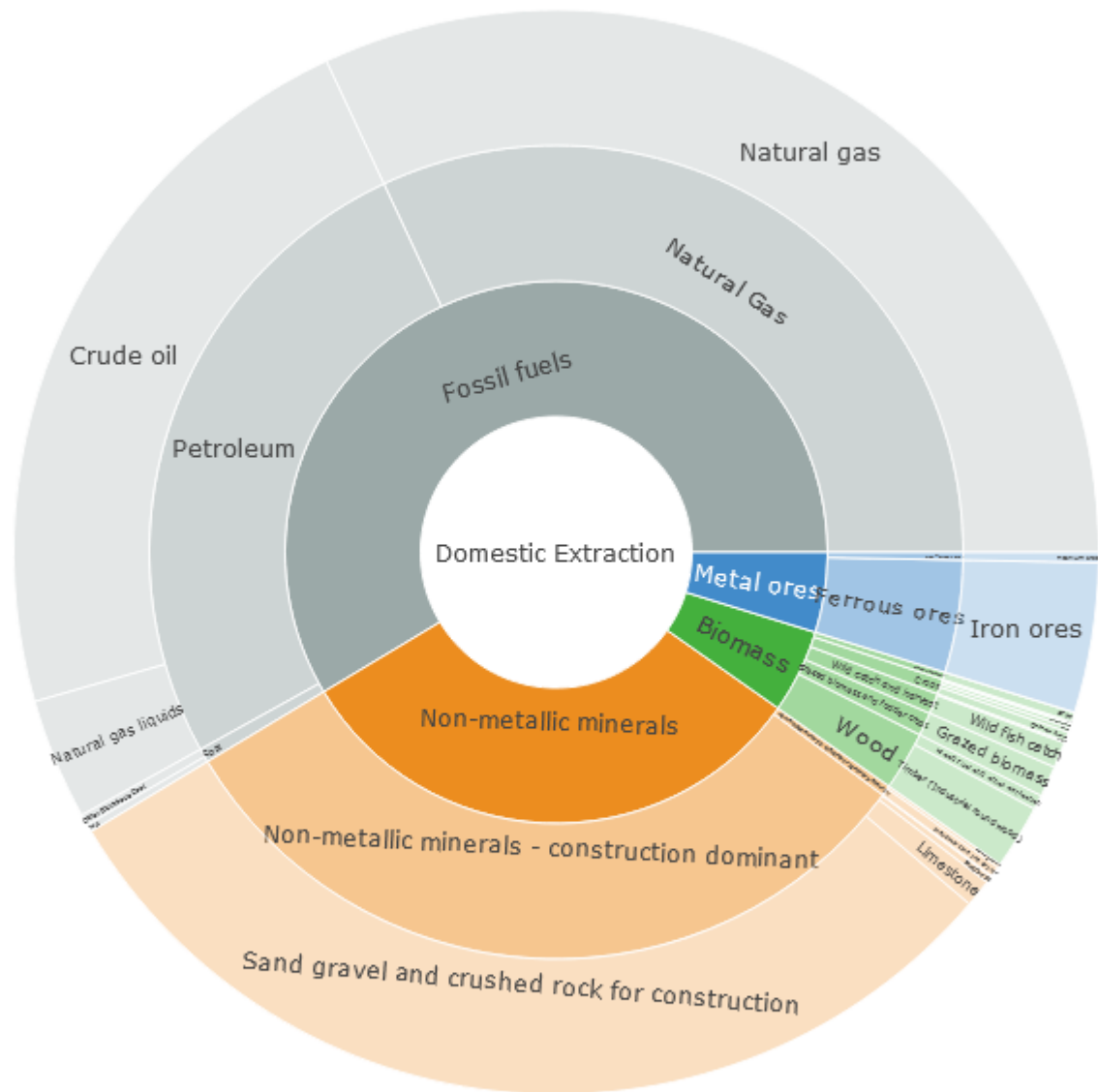
Material flow indicators in Norway in 2017, by material group



And here we see that this production of non-metallic minerals is sand, gravel and crushed rock for construction. So it's about Norway's geology.

<https://t.co/y6rqWmFVWc>

## Domestic Extraction of Norway in 2017, by material group



Norway drops 15 places on the PHDI list not because of its CO<sub>2</sub> emissions (fairly high at 41st highest in the world per capita), but because of its geology, because it shifts a lot of rock whenever it builds anything.

What do you think? Is the amount of rock and sand shifted around a good indicator of a country's contribution to "dangerous planetary change"?

Here's the story on NRK's website (in Norwegian):

<https://t.co/XqIExzKBoO>

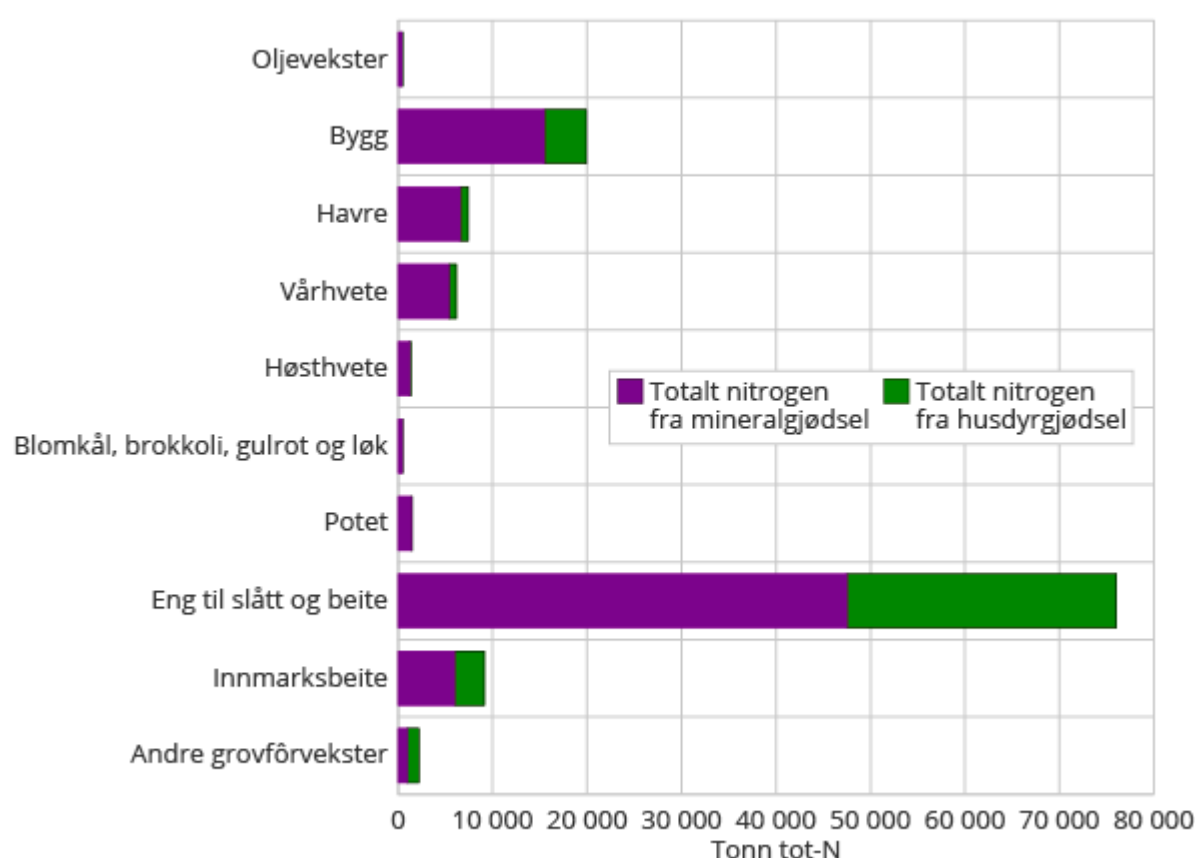
PS. I spent less than an hour looking at this. If anyone has more detailed data/understanding, please chip in.

Here's a direct link to the table in the report showing the PHDI. Ireland's index for CO<sub>2</sub> is 0.884, while Norway's is 0.881, almost the same. For material footprint Ireland is 0.859, Norway 0.752. It's the material footprint that drags Norway down.  
<https://t.co/J6YOpT6MgO>

It's always difficult for this sort of analysis using global datasets. You can't check every country. The report says Norway has high use of nitrogen fertiliser, but it calculates this as the "tonnes per 1,000 hectares of cropland". A problem?  
<https://t.co/ahqifXDMGY>

Seems to be a problem, yes, because Norway has very little cropland (again with those rocks) and about half of the nitrogen fertiliser is spread on pastures. Dividing only by cropland will greatly increase the apparent breach of this planetary boundary.  
<https://t.co/amTyCbNHY8>

### Totalt nitrogen (tot-N) spredd i mineral- og husdyrgjødsel på ulike vekster. 2013



Kilde: Statistisk sentralbyrå.

Norway also transgresses because it hasn't increased its forest area by 7.5% since 1990. As if it could? I see Iceland is off the hook on this one.

A global goal of increasing forest area by 0.25%/yr is good, but there are country-specific factors to consider.