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Editorial: Down to earth

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Did you know that 97 per cent of the world's nitrogen fertiliser is made using natural gas? This poses an interesting dilemma for Australia. In an era when our natural gas exports are booming, experts are predicting the world will need to produce 70 per cent more food to feed the population of 9 billion expected by 2050. Will this force a 'peak fertiliser' crisis in Australia?

As our story on p. 9 reveals, by applying the 'reduce, reuse, recycle' principle to key crop nutrients – nitrogen, phosphorus and potassium – researchers are identifying more efficient ways to use fertiliser, as well as ways to capture and recycle the millions of tonnes of nutrients discharged each year into waterways, the oceans and groundwater. As an added bonus, cutting back on fertiliser use promises to reduce emissions of the greenhouse gas, nitrous oxide.

Still on the topic of looking after the land, 'Farming carbon' on p. 24 takes a closer look at some of the barriers and benefits to retaining carbon – in the form of roots and other retained organic matter – in soils. Carbon sequestration is not the only prize here: experts say that maintaining high crop yields in future will depend on high soil carbon levels.

If you've ever despaired about erosion and land degradation, the film *Hope in a Changing Climate* made by John Liu (p. 12) dramatically illustrates how China's once-arid Loess Plateau – once known as the place with the highest erosion rates in the world – was dramatically transformed into a fertile, moist landscape through revegetation.

Our focus on supermarkets looks at how some of these retail giants are beginning to use their power to 'green' their supply chains. Nevertheless, there are still concerns about their trading practices, which can negatively impact small suppliers, shops and farmers.

Do look at our story on sharks (p. 14). The Australian Marine Conservation Society claims they are being killed at the rate of 100 million each year, many through the cruel practice of 'finning' – cutting fins from often-live sharks.

Good reading.

