WWF

Where are we coming from?

WWF IN BRIEF

+100
Active in over
100 countries on
5 continents

+5000
More than
5,000 staff
worldwide

1961
Founded
In 1961

+5M
Over 5 million
supporters globally

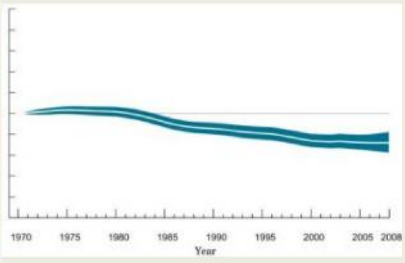
Photo: © Michel Roggo / WWF-Canon

WWF Conservation Strategy

Stop the degradation of the planet's natural environment and build a future in which humans live in harmony with nature, by:

- Conserving the world's biological diversity
- Ensuring that use of renewable natural resources is sustainable
- Promoting the reduction of pollution and wasteful consumption

Global Living Planet Index (LPI)



WWF-Australia
High Impact Initiatives


Great Barrier Reef


Southwest Australia


Heart of Borneo


Coral Triangle


Market Transformation


Climate Change


Wild Fisheries


Aqua-culture


Beef


Sugar

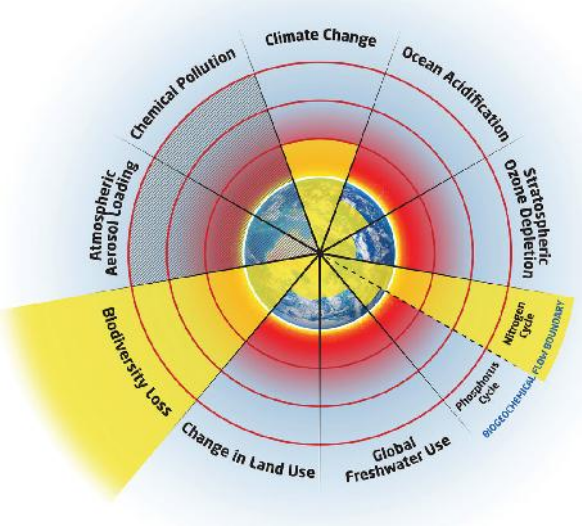

Forestry


Palm Oil

WWF

Why are we interested in fertilizer?

Growing awareness of planetary boundaries



"Human activities now convert more atmospheric nitrogen into reactive forms than all of the Earth's terrestrial processes combined...

Fertilizer production and application is the main concern."

Source: http://www.stockholmresilience.org/21/research/research-programmes/planetary-boundaries/planetary-boundaries/about-the-research/the-nine-planetary-boundaries.html

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Increasing impacts of fertilizer misuse

- Anoxic 'dead' zones in Gulf of Mexico, algal blooms in Baltic Sea, China, Mediterranean, Murray-Darling, NZ rivers, etc.
- NOx is a potent greenhouse gas
- And the decline of the Great Barrier Reef (GBR)

How excess fertilization damages the GBR

- Fertilizer in farm runoff ("N surplus") increases Dissolved Inorganic Nitrogen (DIN)
- DIN feeds microalgae
- Microalgae feed Crown-of-Thorns Starfish (COTS) larvae
- Leads to higher frequency of COTS outbreaks
- COTS estimated to have caused ~40% of coral cover loss since 1985
- Increased algae also reduces light availability, depresses corals, sea grass and other species

Source: Scientific Consensus Statement (2008, 2013); De'ath et al. (2012); Furnas (2003)

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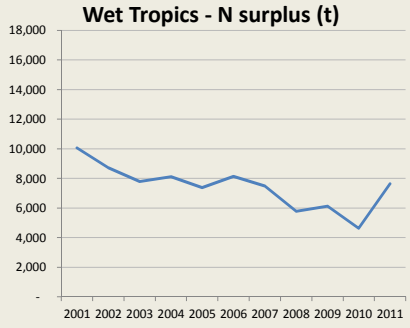
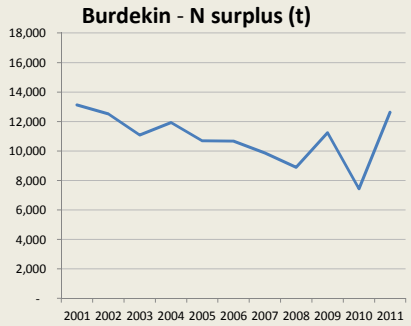
Where to from here?

How can we reduce the N surplus?

- Potential to cut N pollution up to 50% by moving from current 'best practice' to N application rates based on 15-year block yield averages
- **Increase efficiency of fertilizer use (kg N / t cane)**





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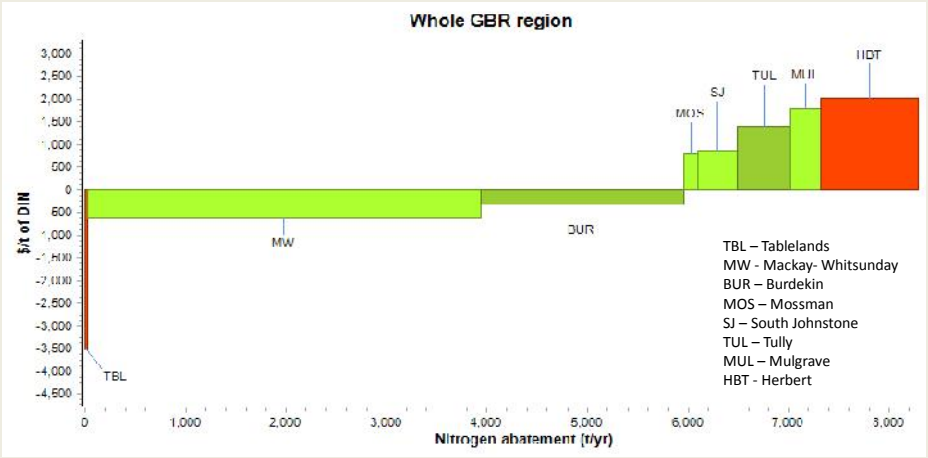
Looking for cost-effective change

Relative costs and potential magnitude of Nitrogen abatement (Stuart Whitten et al., 2013, CSIRO)



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Solutions – require partnership

- Government
  - all levels
- Industry
  - entire value chain
- Academia
  - research & teaching
- Civil society
  - NGOs, peak bodies
- Consumers
- Media

- Set SMART targets
  - codes of practice/standards
  - continuous improvement
- Encourage change
  - extension support
  - targeted incentives/taxes
- Research new methods
  - on-farm & in-laboratory
- Ensure good governance of decision-making processes
  - transparent, independent
  - inclusive, efficient
- Monitor, evaluate & report

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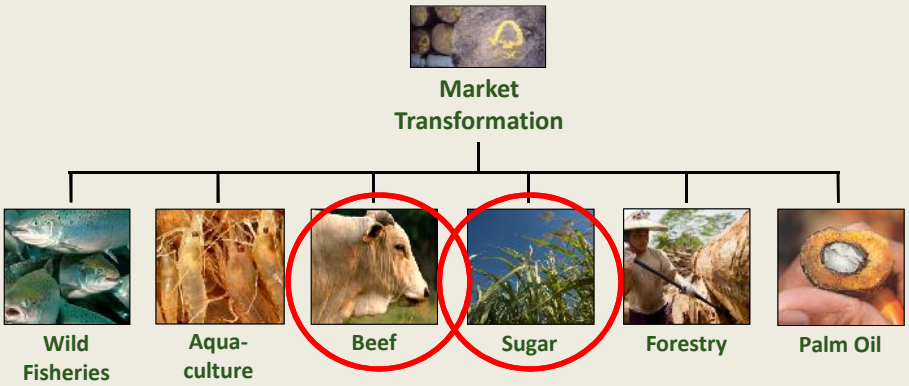
What can WWF offer?



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Market Transformation Strategies

1. Roundtables, certification and multi-stakeholder initiatives (MSIs)
2. One-on-one corporate engagement
3. Private sector finance
4. Public policies (e.g. incentives, regulations)
5. Consumer work and campaigns
6. Research and development
7. Best management practices (BMPs)




Corporate commitments to sustainable sourcing (a few examples)

Kimberly-Clark — Innovative ideas by caring people

100% sustainable sourcing of paper products

Unilever

100% sustainable sourcing of all agricultural raw materials by 2020

Cargill

Committed to trading 100% sustainable palm oil by 2015, in US/EU, and globally by 2020

Costco Wholesale, Kroger, SUPERVALU, Walmart

100% of top 20 wild-caught seafood products are sourced from sustainable fisheries, or from fisheries on a pathway to sustainability, by 2015

How to prove that production is sustainable?
The role of voluntary standards

Mature

Developing

Emerging

Sustainable Beef

Roundtable on Sustainable Biofuels

Market uptake of WWF-supported standards
(Percent as of August 2013)

Commodity	% of Market Certified	Standard	Commodity	% of Market Certified	Standard
Timber	14.25%	FSC	**Tuna**	12.7%	MSC
Pulp & Paper	6.6% (virgin) 53.4% (recycled)	FSC	**Whitefish**	52.9%	MSC
Soy	0.4%	RTRS	**Farm Salmon**	0%	ASC
Palm Oil	16.4%	RSPO	**Farm Shrimp**	0%	ASC
Cotton	4%	BCI	**Dairy**	NA	none
Sugar	2.6%	Bonsucro	**Beef**	NA	none
Biomaterial	<3%	RSB			

Partnership in practice:
Project Catalyst

http://reefcatchments.com.au/land/project-catalyst/