



**International
Fertilizer Industry
Association**

Global policy issues, risks and opportunities for the global fertilizer industry


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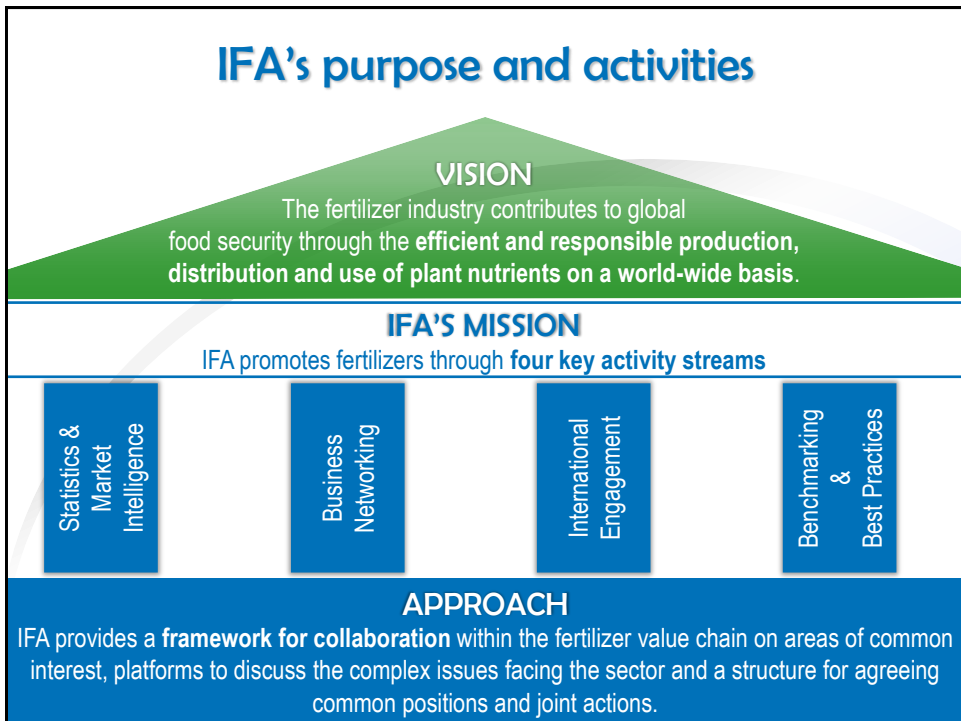
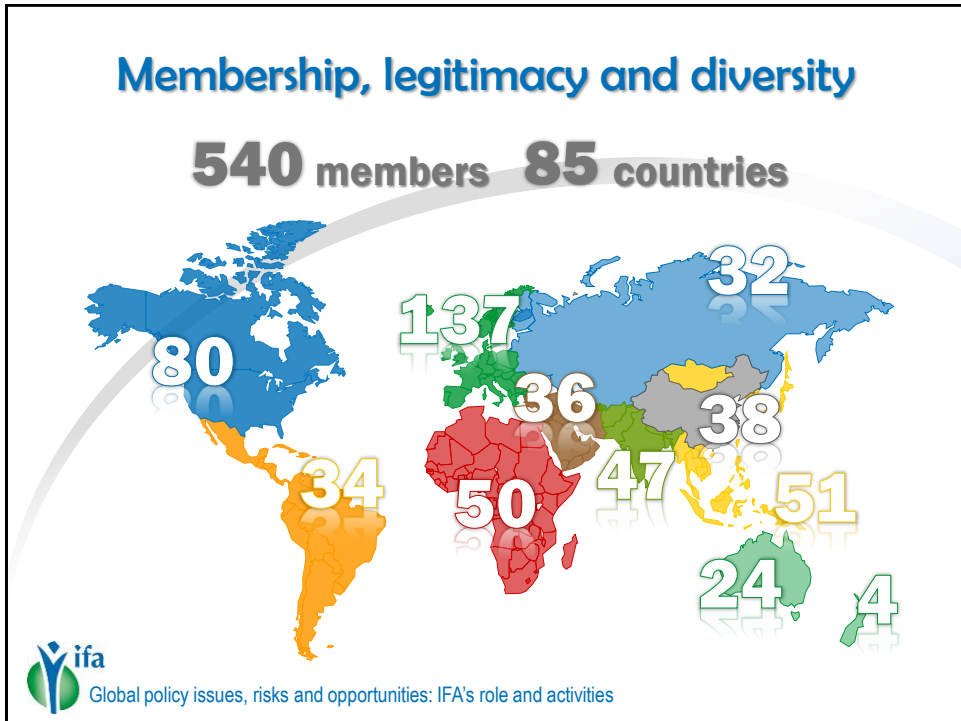
Fertilizer Association
THE ANZ FERTILIZER INDUSTRY CONFERENCE 2013


Outline of presentation

- Overview of IFA**
 - Role and activities
 - Advocacy
- Priority Policy Issues**
 - Nutrient Stewardship
 - Product Safety & Security




Global policy issues, risks and opportunities: IFA's role and activities






... To feed the world,
one must first feed
the crops...
NORMAN BORLAUG



BILL & MELINDA GATES foundation

... a few billion people
would have to die if
we hadn't come up
with fertilizer...
BILL GATES

Fertilizing Crops for Food and Nutrition Security



ZERO HUNGER CHALLENGE

The fertilizer industry contributes to meeting the goals of the Zero Hunger Challenge

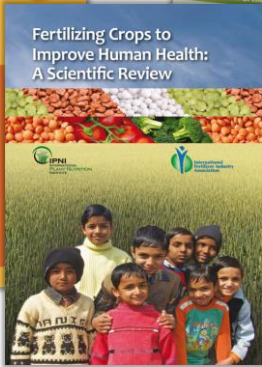
- ZERO** stunted children less than two year
- 100%** access to adequate food all year rounds
- ALL** food systems are sustainable
- 100%** increase in smallholder productivity and income

The fertilizer industry contributes to better nutrition for all, improving the nutrient quality of food through micronutrient fortification. This benefits children under the age of two, as well as women from the beginning of pregnancy.

The products supplied by the fertilizer industry help increase food production and provide nutrients essential for human health.

The fertilizer industry promotes agricultural best practices and nutrient use efficiency. Using extension services, it helps provide products and knowledge to farmers around the world to reduce their environmental impact. Through efficient use of fertilizers and the mitigation of nutrient losses, the carbon footprint of agriculture is reduced and the quality of water, oceans, soil and air is protected.

Fertilizing Crops to Improve Human Health: A Scientific Review, IFA/IFPRI, 2012.



Fertilizing Crops to Improve Human Health: A Scientific Review



Fertilizing Crops to Improve Human Health
Micronutrient deficiencies severely affect people worldwide

- 1 in 6 children are stunted
- 2.5 million children die each year
- 60% of the world's population is deficient in iron
- 1 in 3 children are deficient in zinc
- 1 in 3 children are deficient in iodine
- 2 billion people are deficient in iron
- 450,000 children are deficient in zinc
- 20% of the world's population is deficient in iron

Fertilizers provide nutrients to soils, livestock & people

- 85% of the world's population is deficient in iron
- 20% of the world's population is deficient in zinc
- 20% of the world's population is deficient in iodine

Interventions to fertilizers can eradicate deficiencies in Zn, Se and I

- QUANTITY** > 40-60% increase in yield
- DIVERSITY** > 20% increase in crop diversity
- SAFETY** > 20% increase in crop safety


OF CROPS

HEALTHIER LIVES

BETTER NUTRITION

SAVING AND IMPROVING THE LIVES OF CHILDREN

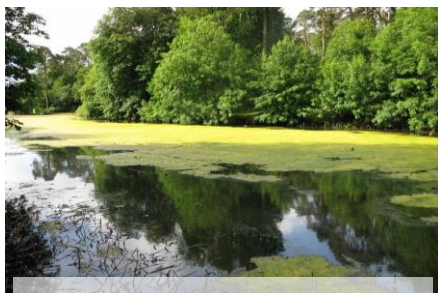
www.ifa.net www.fertilizer.org



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Nutrient Stewardship



- Eutrophication • Acidification of ecosystems • Loss of biodiversity • Climate change • Stratospheric ozone depletion • Particulate matter formation (dust) and photo-oxidant formation
- Nitrate in drinking water and food



- Soil nutrient mining • Soil fertility degradation • Erosion • Low productivity • Food insecurity
- Malnutrition



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Calls for improved efficiency are not new...

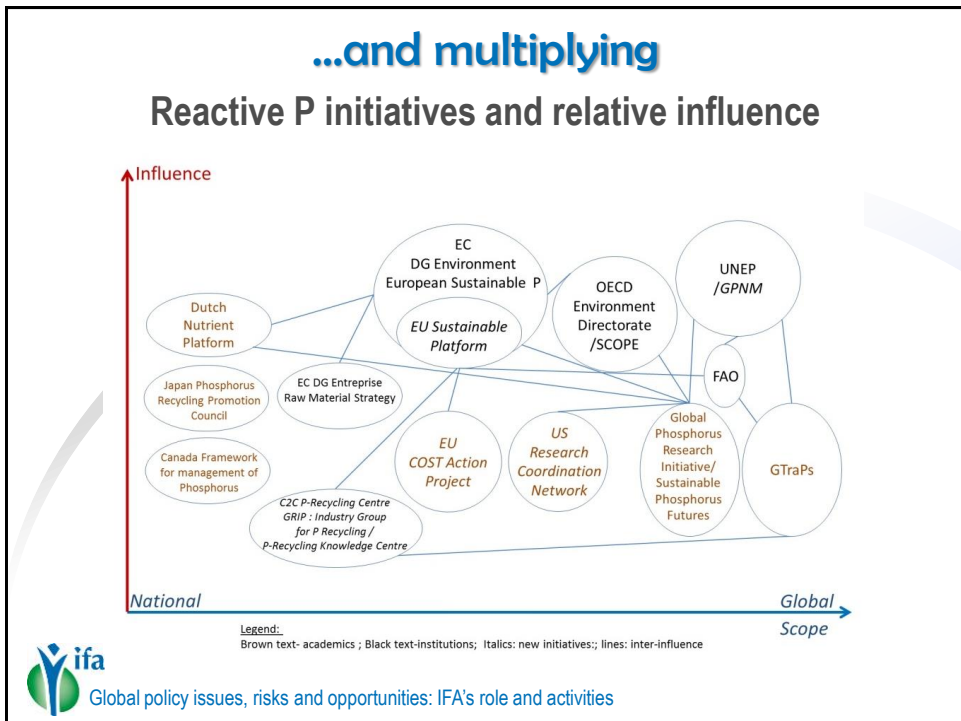
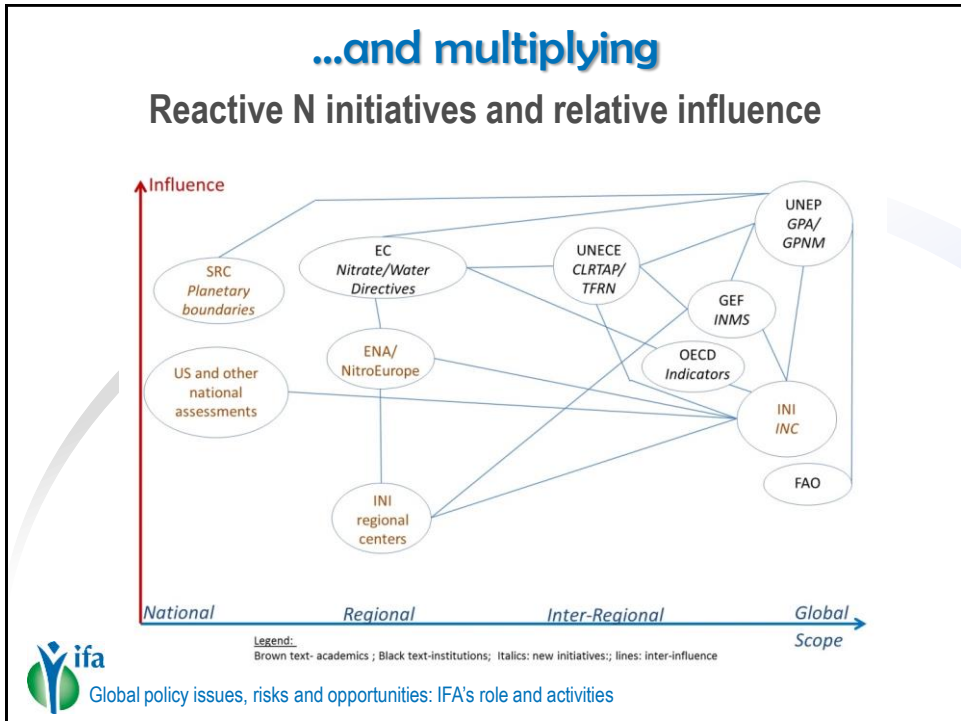


“We need to develop new products that will deliver just the nutrients that the growing plants require and diminish environmental externalities,...to invest in advanced fertilizer research,...and coordinate with advanced plant genetic research so that we can achieve synergy between more efficient use of available nutrients by plants and more efficient delivery of nutrients.”

Dr. Norman Borlaug, 2008

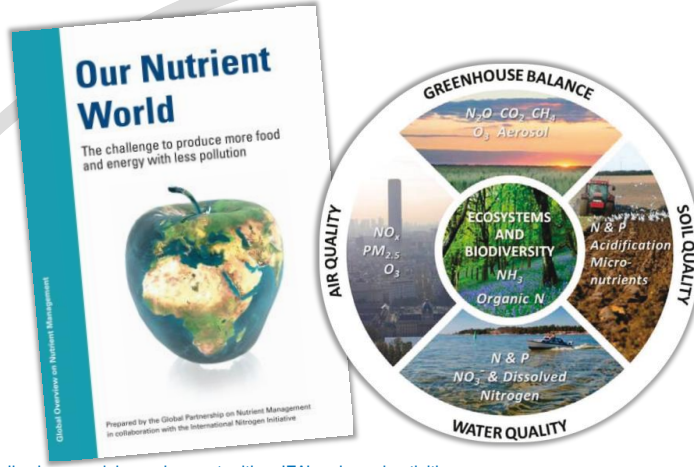


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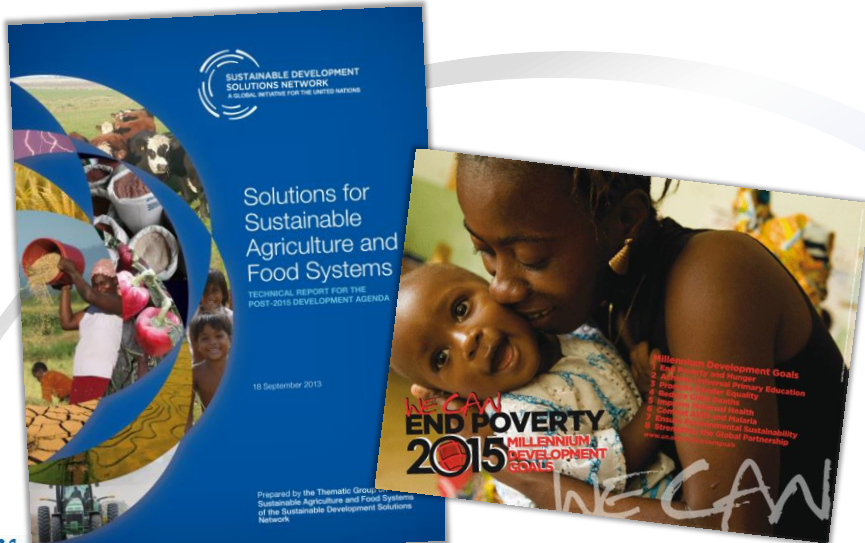
Environmental concerns

- Improve nutrient use efficiency (NUE) by 20% by 2020
- Establish a global intergovernmental framework on the nitrogen issue



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Sustainable solutions....



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Nutrient stewardship

- Focuses on nutrient end use (contrary to product stewardship)
- Refers to nutrient management practices that improve social, economic and environmental sustainability through implementation of scientific management principles
- Recognizes economic, social and environmental goals vary regionally and from farm to farm
- Development and adoption of site- and crop-specific best management practices are critical to achieving the performance improvements logically embedded in any nutrient stewardship system
- The principles of the right use of nutrient source, rate, time and place form the minimum basis of any local nutrient stewardship system
- Must extend also to last-mile delivery, which includes access to knowledge, to fertilizers and related services

IFA will promote end use nutrient stewardship efforts recognizing the minimum principles of applying the right use of nutrient source, rate, time and place and of last-mile delivery.



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Promoting Stewardship Programs



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Effective last-mile delivery



IFA is a member of
the Farming First coalition

- Improving the efficiency in farmers' use of agricultural inputs
- Developing improved crop varieties
- Heavily investing in agricultural research and development
- Closing existing "yield gaps"



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Special products

Slow- and controlled release fertilizers	Stabilized fertilizers	
Fertilizers supplemented with micronutrients	Soluble / liquid fertilizers (fertigation, foliar sprays)	

- Mostly used on specialty crops
- Constrained by price differential
- New products could alleviate the price constraint
- Virtual Fertilizer Research Center (launched in 2010 by IFDC): creating the next generation of fertilizers



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Promoting product safety

West (USA), 2013



Toulouse (France), 2001



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Product security

GLOBAL TASK FORCE

Review areas include topic like:

1. Fertilizer coloring
2. Detonation prevention
3. Rigorous standarts
4. Awareness and education



- Stakeholder outreach (JIEDDO, World Customs Organization, ...)
- Local Task Forces (Europe, US, ...) and events (Central Asia, ...)
- Local cooperation (Europe, US, Pakistan, ...)
- Individual company leadership (Russia, ...)



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Product Stewardship Protect & Sustain

12 SHE Principles

IFA developed 12 guiding principles for SHE (Safety, Health and Environmental) management.



- More efficient workplaces = increased productivity
- Risk mitigation = < few incidents < less remedial expenses
- Safe and secure workplace = improved business performance



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In summary



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