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‘Planting Seeds’ for ‘Good Growth’: Sustainability Discourses in Multi-National Agrifood Companies

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HAL Authorization

‘Planting Seeds’ for ‘Good Growth’

Sustainability Discourses in Multi-National
Agrifood Companies

- Allison Loconto, PhD
- Researcher, French National Institute for Agricultural Research





Research

PLANTING SEEDS FOR THE FUTURE OF FOOD

THE AGRICULTURE, NUTRITION
AND SUSTAINABILITY NEXUS

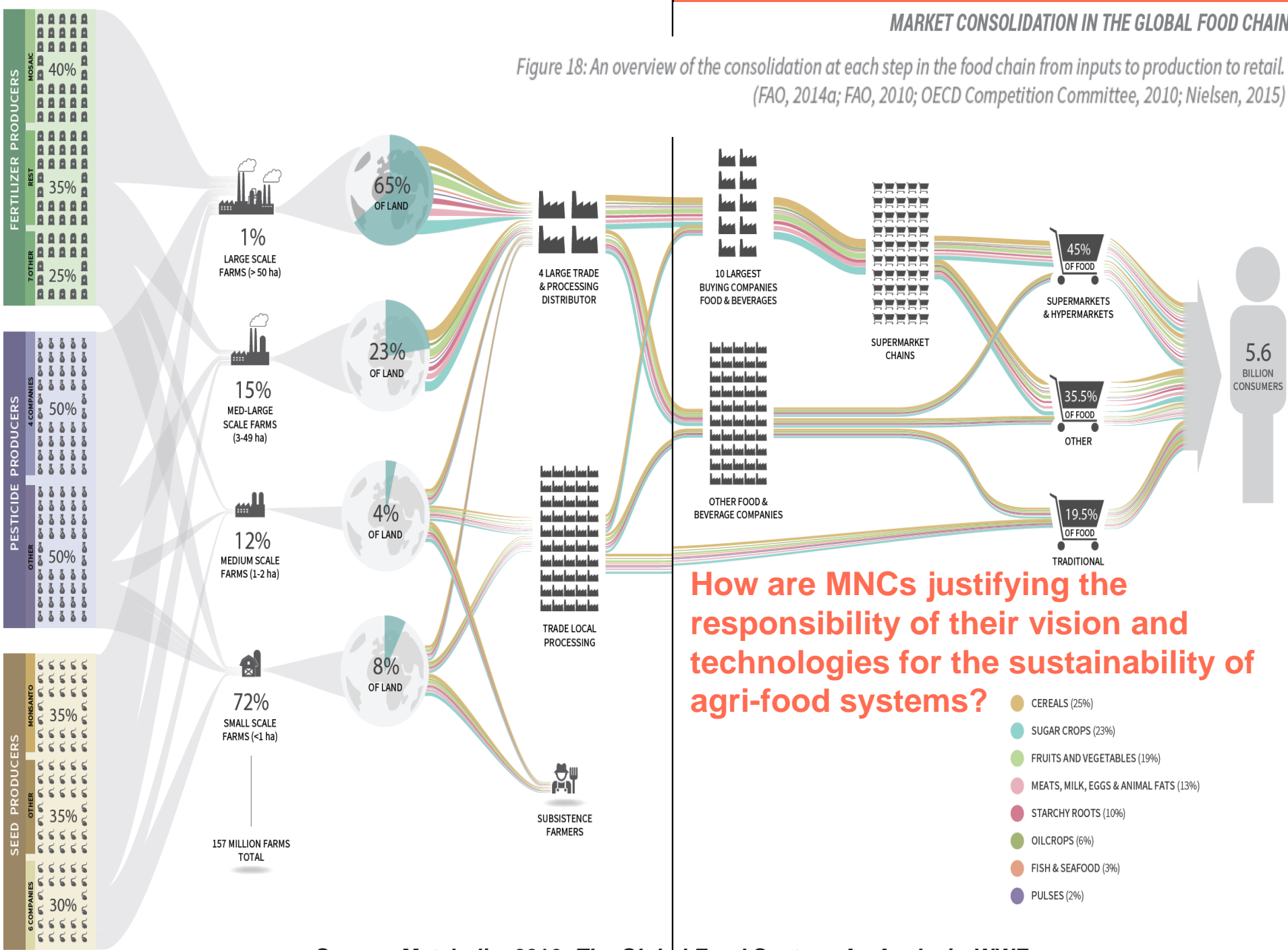
Nestlé Research Center
Lausanne, Switzerland
June 2–3, 2015



“An overarching challenge across these three perspectives is **how to bring new science and technologies to farmers and enable them to adopt good agricultural practices and seeds to produce high yielding, high quality plants, now and in the future.** To resolve this, an integrated approach is necessary at the nexus of Agriculture, Nutrition and Sustainability.

Feeding in excess of 9 billion people in the future will require more than another green revolution; it will require **a metamorphosis of classical agriculture into a system that integrates a range of scientific tools with sustainable agricultural practices to provide the optimal nutrition to foster human and environmental health now and in the future.**”

Figure 18: An overview of the consolidation at each step in the food chain from inputs to production to retail. (FAO, 2014a; FAO, 2010; OECD Competition Committee, 2010; Nielsen, 2015)



Private investment = > 50% of all spending (public and private) on Food & Ag R&D

world rank	Name	Country	Industrial sector (ICB-3D)	R&D 2013 (€million)
56	BASF	Germany	Chemicals	1849,0
67	DUPONT	US	Chemicals	1561,2
80	DOW CHEMICAL	US	Chemicals	1265,3
89	MONSANTO	US	Chemicals	1111,6
106	SYNGENTA	Switzerland	Chemicals	997,8
75	NESTLE	Switzerland	Food Producers	1371,3
98	UNILEVER	The Netherlands	Food Producers	1040,0
272	MONDELEZ	US	Food Producers	341,5
308	VILMORIN	France	Food Producers	289,1
327	DANONE	France	Food Producers	275,0

Responsible Research & Innovation: Quest for collective responsibility?



- “Responsible Research and Innovation (RRI) is a transparent, interactive **process** in which societal actors and innovators become **mutually responsive** to each other with a view on the **ethical acceptability, sustainability and societal desirability** of the innovation process and its marketable products.”
(von Schomberg 2011)
- “European Institutions, EU Member States and their R&I Funding and Performing Organisations, business and civil society to make **Responsible Research and Innovation a central objective** across all relevant policies and activities, including in **shaping the European Research Area and the Innovation Union.**”
(Rome Declaration, 2014)

RRI and the paradigms of responsibility

Paradigm	Principle	Time	Responsibility meanings	Mean of realisation	Nature	Relevant responsibility dimensions
Responsibility	Fault	retrospective	Liability (fault)	sanction	individual	Ascription sanction
Solidarity	Risk	prospective/ retrospective	Liability (causality)	compensation	systemic	Ascription assumption
Safety	Precaution	Prospective (anticipative)	Role Virtue	Consultation (expertise)	collective	Assumption
RRI	Proaction	Prospective (proactive)	Virtue Role	participation (deliberative fora)	collaborative	Exercise



JACK STILGOE
DEPARTMENT OF SCIENCE AND TECHNOLOGY STUDIES - UCL, UNITED KINGDOM
WHY RESPONSIBLE RESEARCH AND INNOVATION MATTERS

**“RESPONSIBLE INNOVATION MEANS
TAKING CARE OF THE FUTURE THROUGH
COLLECTIVE STEWARDSHIP OF SCIENCE
AND INNOVATION IN THE PRESENT.”**

(JACK STILGOE, RICHARD OWEN, PHIL MACNAGHTEN, DEVELOPING A FRAMEWORK FOR RESPONSIBLE INNOVATION, RESEARCH POLICY 42 (2013) 1568-1580.)

Data collection (2007 – 2015)

- Participant Observation
 - Agri-food Task Force of the FAO/UNEP 10YP on Sustainable Consumption and Production,
 - UN Global Compact's Food and Agriculture Business (FAB) Principles,
 - Sustainability standards conferences
 - Invitation only events on sustainable value chains (5)
- “Interviews”
 - 7 at Syngenta
 - 5 at Unilever
 - 3 at Nestlé
- Analysis of tools and documents

Governance Arrangements (Edler et al. 2013)	R&I = research and innovation characteristics, P: purpose, PI: policy instrument, SE: system of enforcement, WGL: wider governance landscape,
Actor Landscape (Loconto & Fueilleux 2014)	Internal Alliances (within the company) External Alliances (outside of the company)
De facto Governance Practices (Rip 2010)	DF: definitional frame S: solution, SI: spaces of interaction, AM: actor mobilization, RC: responsibility construction, IU: instrument used.

Governance Arrangements

- Fall within the framework of Corporate Social Responsibility
- EU Multi-Stakeholder Forum on CSR communication (2006) – recognized existing private approaches:
 - Guidelines for Multi-National Enterprises from the OECD
 - Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy by the International Labour Organisation (ILO)
 - Fairtrade Labelling International
 - International Social and Environmental and Accreditation and Labelling Alliance Standards Code
 - EU's Eco-Management and Audit Scheme
 - ISO 26000 standard for CSR
- **No specific policies about Responsibility in Research or Innovation processes**



Code of Business Conduct



“integrity, honesty, fair dealing and full compliance with all applicable laws”

Get involved! 

If you would like to help shape some new community projects, please email us at: switzerland.communications@syngenta.com

“The GGP ties these to the key performance indicators of employees and to awards for the employee who has been the most successful in implementing activities that contribute to meeting the 6 Good Growth Plan commitments.”



Company Actor Landscape	Nestlé	Syngenta	Unilever
Internal Enrolments	Innovation, Technology, R&D (including significant consumer research) Human Resources Corporate Relations	Research & Development (including regulatory affairs) Human Resources Corporate Affairs	R&D (including consumer research) Human Resources Marketing & Communication Supply Chain
External Alliances	National & International Regulators UN Global Compact FAO/UNEP Sustainable Agri-food Task Force Scientific community Standard-setting organisations (4C) Donors (GIZ) SAI Platform Nestlé Foundation Suppliers Start-ups	National & International Regulators UN Global Compact The Joint FAO/WHO Meeting on Pesticide Residues (JMPR) and Specifications (JMPS) Scientific community Standard-setting organisations (GlobalGAP) Crop Life International Syngenta Foundation for Sustainable Agriculture World Business Council for Sustainable Development (WBCSD) Suppliers Start-ups	National & International Regulators UN Global Compact FAO Partnership Scientific community (Oxford and Cambridge Universities) Standard-setting organisations (Rainforest Alliance) SAI Platform Sustainable Food Labs The Unilever Foundation Suppliers Start-ups

WORKING TOGETHER
Toward a Food Secure World

28 October 2014



“The Declaration of Abu Dhabi is a global collaboration to develop [and] a common set of good agricultural practices (**Good Agricultural Practices**) criteria that defines safe, environmentally sustainable, and socially responsible agriculture and aquaculture. The criteria will draw upon existing standards and assessment tools. Additionally, the collaboration will **establish a system for uniquely identifying every farm, and a public reporting mechanism for supply chains.** Combined, the public Good Agricultural Practices. criteria, unique farm identification, and the reporting system will serve as a foundation upon which diverse training, assessment and verification programs may be adapted and built, and impacts may be measured. **The Declaration of Abu Dhabi is a unifying force that will bolster existing initiatives, shape future ones, and enable a more rapid and efficient transition to productive, safe and sustainable agriculture around the world.**”

Responsibility is: Regulatory compliance


syngenta.

Overview Our strategy The Good Growth Plan Crops in focus Our business enablers Governance and financials Our stories Downloads Global

Home > Our business enablers > Responsible agriculture > Overview Syngenta global Search

Our business enablers

Responsible agriculture



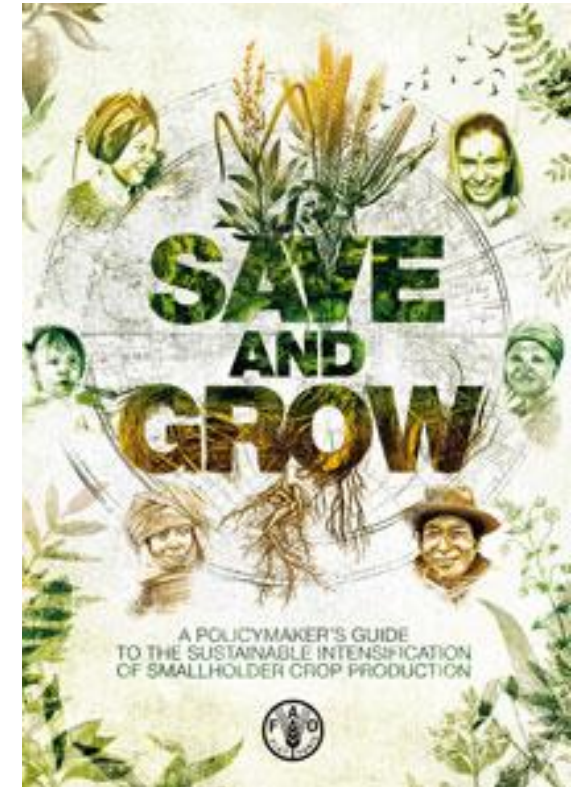
Environment Economic value shared

The safe and responsible use of our products is fundamental to helping farmers to grow more from less.

Overview Resource efficiency Product safe use

Our ambition of helping farmers to increase their production sustainably means we must ensure that our products remain available, safe and effective in the future. This means managing our technology responsibly, and making sure it is used correctly.

It starts with R&D, where we think holistically about new molecules and seed varieties – considering safety, environmental impact and regulatory concerns next to efficacy at the earliest practicable stage. It also includes training farmers to use the right protocols, and to handle and store our products safely.

“With the publication of *Save and Grow*, FAO proposed a new paradigm of intensive crop production, one that is both highly productive and environmentally sustainable.”

Goal: Managing and reducing water use



Heliosec® On-Farm Water Management

- Framework:**
- Implementation of EU legislation includes mandatory measures
 - Voluntary best practices
 - Combines sustainability with profitable farming
 - *Heliosec can help to communicate the sustainability of your offer*

- Remarks:**
- Mostly installed in France, why? → approved by French authorities and is being widely distributed to farms across France

- Advantages:**
- Minimizes the quantities of residues for disposal and farmer can see when it has worked

- Syngenta:**
- Seller; Price of full offer incl. delivery: 5000 EUR



Operation Pollinator

- Framework:**
- Legislative requirements for farmers to maintain uncropped ecological compensation areas
 - More secure and sustainable food supply for Europe
 - Qualify for additional environmental payments
 - Improve yields from better pollination
 - Deliver soil and water protection measures
 - Develop strong links with retailer
 - With the linkage into the environmental stewardship subsidy schemes, growers can receive direct payments
 - **Italy (Umbria):** local growers receive subsidies for field margins that are planted with wildflowers and managed according to strict protocols

- Syngenta:**
- Seller and knowledge provider

Preserving the environment through agriculture

- Support of the Louisiana State University (LSU) AgCenter's efforts to restore and protect Louisiana's coastal marshes
- Support of the five-year biodiversity project launched by the Fondation de la faune du Quebec (Fondation created by the government of Quebec)
- Support Lucas do Rio Verde Legal project against deforestation in Brazil (together with the Nature Conservancy) → Syngenta is supporting the farmers with safe use trainings and education programs
- Conservation Tillage Program in Colombia
- Studying the benefit of no-till systems and the use of the herbicide GRAMOXONE to prevent soil erosion in Vietnam and the Philippines

Syngenta's Code of Conduct

- **14. Environmental Impact:** take all reasonable steps to preserve the quality and quantity of natural resources; aim to minimize the environmental impact of our operations by complying with all applicable laws, international guidelines and industry standards; support the efforts of our customers and other partners in the safe and environmentally sound handling of the products they receive from us
- **15. Biological diversity:** We endorse the Principles of conservation and sustainable use of biological diversity and the fair and equitable sharing of benefits arising from genetic resources

Products in General

- Stewardship assessments are made and approval must be gained before commercialization
- All internal standards and legislative and regulatory requirements are met or exceeded
- Train farmers in the safe use of the products

Pequeño Agricultor Syngenta (PAS)

- Training curriculum
 - Basic training on obtaining and sowing the best seeds, safe and effective use of crop protection products, better agricultural practices, and proper commercialization of harvests
 - Safe and responsible use of pest control products
- In Colombia, PAS fully complies with legislation on crop protection products, and the program team actively cooperates with local authorities

QUALIMETRE®

- Goal:** Minimize the risk from mycotoxins to consumers

How does it work:

- Online tool which enables farmers to predict the risk of mycotoxins affecting their corn or wheat
- Current running in France and Italy

Background:

- Stringent regulations
- Quality-conscious consumers

syngenta

Goal: overcome the issue of child labor and improve overall working conditions on seed supply farms in India



- Syngenta:**
- Addressing the problem of child labor

Training for Growers and Smallholders

Goal: Provides farmers and key members of the local farming community with practical information on the proper handling of crop protection products (from Syngenta)

- Farmers:**
- For every ten empty containers collected, Syngenta offers the farmers a tree seedling

IPM (Integrated Pest Management) at school

- Syngenta:**
- Co-sponsored monetary awards
 - Provision of educational material

Partnership with North Carolina State University

Goal: Address the key challenge of securing increased crop productivity at the same time as enhancing environmental and human safety



- Syngenta:**
- Demonstration events → product selling?
 - Serves as a platform for open discussions about sustainable agriculture with Syngenta's many stakeholder

International code of conduct for the distribution and sale of pesticide products (FAO)

Goal: Pesticide industry should provide full product stewardship support to customers and give transparent reports on its activities

- Framework:**
- Voluntary Code of Conduct

Various measures against suicide with pesticides

- Funding of secured access projects
- Installation of secure boxes

Farmer's sisters

- Communicate with farmer's wives → promote sustainable agriculture measures



Smallholder Development Project

Goal: Provide training to small farmers across Kenya in sustainable agriculture practices

Advantage:

- Knowledge sharing about conservation farming, water and soil management
- Correct use of pesticides → considerably reduction of chemical poisoning cases
- More profitable contacts between farmers and their customers
- Higher yield, better quality







Coalition for Urban/Rural Environmental Stewardship

- Syngenta:**
- Enabled Syngenta to work with other partners on common stewardship goals

Work:

- Cures holds meetings for farmers on general and **product-specific** stewardship topics → Promotion Syngenta products?
- Published an updated edition of "Pollinators and Pesticide Stewardship" → understand local ordinances on pollinators, determine if a particular pesticide may be harmful to pollinators before using it, recognize signs of bee-toxicity
- Series of novel educational quizzes and self-assessment tools on comprehensive pesticide stewardship topics

-  Engagement with communities
-  Preserving the environment through agriculture
-  Safe use of our Products
-  Providing consumers with healthy, high quality food



Mandatory measures:

Situation, in which legal obligations require

- *the company to comply directly (own operations) or indirectly (through their customers)*
- *the customers of a company to fulfill certain regulations which translates in a market potential for the company*

- Operation Pollinator (Italy)
- Heliosecc

Flexible/early compliance:

Situation in which a future regulation seems possible due to an increased interest of the public and/or the public sector in the specific subject.

The company can react with voluntary standards or projects to

- *Pre-comply with upcoming regulation*
- *Shape possible regulation*
- *Increase investor confidence*
- *Get in contact with (local) authorities*

- Syngenta's Code of Conduct
- International Code of Conduct for the distribution and sale of pesticide products (FAO)

Voluntary investment in ES – linked to input factor

Situation in which a company participates independent from legislation. The motivation is rather emerging through reasons located in the production chain of a product such as

- *Reduce production costs*
- *Secure long –term availability/ quality of production factors*
- *Enhance R&D*

Voluntary investment in ES – de-linked from input factor

Situation in which a company invests in ES through green and social investment opportunities without having any direct connection between the investment and the daily business operations.

- *Generate financial return*
- *CSR engagement to manage reputation and customer satisfaction*
- *Improve customer loyalty*


- Preserving the environment through agriculture
- Me and mine Initiative
- Interra Farm Network
- Smallholder Development Project
- CURES
- IPM at school
- Training for Growers and Smallholders
- Farmer's sisters
- Pequeño Agricultor Syngenta

Responsibility is:

Making the “Business Case” for Sustainability

Feeding the world's population – drivers of change

 Nestlé
Good Food, Good Life

 **Population growth**, ie in urban areas: from today's 7.1 billion towards 10 billion over the next 50-80 years?



Food vs. nutrition security: from under nutrition to obesity pandemic



Sustainably feeding the world population

Globalization will further expose the food system to novel economic and political pressures



Production & climate change: competition for land, water and energy

Nestlé Research 

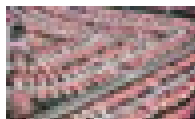
HOW to integrate sustainability across the entire value chain?

Requirements for a product ecodesign tool:

“We have certainly not stopped here and our activities include identifying various means to improve the nutritional status of smallholder farmers within our supply chain in collaboration with Solidaridad and other partners. At the end of 2015 we included for the first time **biofortified maize in one of our commercial products in Nigeria and have reserved larger quantities for 2016.**”



Impacts on ecosphere
(PDF×m²×year)



Land use (m²×year)



How does it work:
Promotes responsible farming in four main ways

- Training
- Visits from sourcing staff
- Farmer connect: Purchasing green coffee locally in an efficient way
- Ensuring the future of coffee farms: investing in improving coffee trees through plant science



Framework:

- Increasing consumption
- Challenges: volatile prices, declining yields, strong competition for raw materials, alternative crops considered by growers as better commercial prospects

The Nestlé Policy on Environmental Sustainability

Supported by The Nestlé Environmental Management System (NEMS)

Educational activities have been undertaken. For example farmers were made aware of the damage that certain practices can have on the park and its water resources. The advantages of sustainable, environmentally-sound farming methods were presented.

Preserving Balaton National Park

Goal: preserve the Balaton National Park in Hungary

Joint project between Nestle and the local authorities
The park logo is featured on all labels of Theodora water bottles sold in Hungary.

Baraka (bottled water), Egypt

Nestle analyzed its plant's water flows and investments were made to save energy and water
Local authorities were concerned to optimize industrial water consumption

Goal: training farmers to help them to increase yields, reduce disease, respect the environment and produce a better quality crop which attracts higher prices



Part of action in the course of the International Cocoa Initiative (ICI), set up specifically to eradicate the worst forms of child labour

Co-founded The World Cocoa Foundation (WCF) to deal with issues such as ineffective farming techniques and poor environmental management

Partner government organizations such as the Centre National Ivoirien de Recherche Agronomique to improve the sustainability of cocoa farming

Co-founded the UTZ Certified Cocoa Programme

Support industry-wide organizations such as The Sustainable Tree Crops Program, which has increased income by over 20% for nearly 80 000 West African families through farmer training

UN Millenium Development Goal

In all case studies on the website is mentioned which UNMDG the project serves

Grains and legumes in Central and West Africa

Framework:

- Fast-growing breakfast cereals business
- Rural farmers receive higher price for contaminant-free (mycotoxin) produce
- Food companies, retailer and wholesalers will become more aware of the health implications of mycotoxin-contaminated grains and legumes, while an estimated 150 million people will have access to a healthier diet

Goal: Three-year sustainable agriculture strategy to target specific priorities across Africa, designed to ensure a steady supply of raw materials



Framework:

- Project is run by the Swiss Agency for Development and Cooperation (SDC)
- Has brought together Nestle, Clariant, Holcim, Syngenta and seven Colombian companies

Goal: test the draft international standard for water footprinting, ISO 14046 Water Footprint

SuizAgua Colombia

Value to Nestle: improving technical knowledge about water footprinting and promoting better water management

The Agrivair Initiative

Goal: Encourage Farmers to change their farming practices in order to reduce the nitrate level

Framework:

- French legislation on the quality of "natural mineral waters" is very strict and, unlike in other countries such as the UK or the US, prohibits any treatment
- 1988: Nestle proposed to farmers to transform their intensive dairy farming system into extensive, hay-based dairy farming with no pesticides and chemicals →reluctance of farmers led to the development of a set of incentives to encourage farmers to permanently change their farming practices
- The impairment of the water quality would have eventually led to the closing down the natural mineral water business in the region

Value to Nestle: Increased quality of Vittel and Contrex water springs

EU CAP: To receive subsidies, farmers must commit to adopt environmentally friendly agricultural practices for at least five years

Goal: Providing coffee farmers with support, training, financing and technical assistance to continuously improve quality, sustainability and productivity

Nespresso AAA Sustainable Quality™ Program

Partnership with Rainforest Alliance and Sustainable Agriculture Network (SAN)

Value to Nestle: Ability to secure enough coffee of a specific quality and aroma profile to meet Nestles growing needs

Framework:

- Coffee growing is challenged by alternative crops considered by growers as better commercial prospects
- Voluntary Initiative
- Nespresso pays a premium price
- Improving productivity, quality and yield
- Requirements on "Fair treatment and Good Working Conditions for Workers"cover the fundamental ILO standards
- Program is compliant with national laws and relevant conventions

Stakeholders involved (coffee grower, coffee supplier, development agencies, academic institutions, NGOs, local and national coffee organizations and others) work together to identify solutions for specific challenges and also to identify new approaches to on-farm practices, new coffee varieties and coffee replanting programs, and harvesting techniques that can lead to market innovation and growth

Founded in 2002 by Nestle, Unilever and Danone

Sustainable Agriculture Initiative

Goal: a non-profit organization to facilitate sharing, at precompetitive level, of knowledge and initiatives to support the development and implementation of sustainable agriculture practices involving the different stakeholders of the food chain.

Joint project with ECOM Atlantic

Example of Nestle's engagement: Sustainable coffee production in Nicaragua

Goal: Develop, support and document a socio-economic sustainable coffee production model with small and medium size producers by educating them and providing extended technical assistance



Mandatory measures:

Situation, in which legal obligations require

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Flexible/early compliance:

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Voluntary investment in ES – linked to input factor

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- The Agrivair Initiative

- Nestlé Policy on Environmental Sustainability
- Baraka (bottled water), Egypt

- EcodEX Design Tool
- Nespresso AAA
- SuizAgua Colombia
- The Nescafé Plan
- Cocoa Plan
- Grains and legumes in Central and West Africa

- UN Millennium Development Goal Participation
- Preserving Balaton National Park

Responsibility is: Mainstreaming Sustainability

THE UNILEVER SUSTAINABLE LIVING PLAN

IMPROVING HEALTH AND WELL-BEING



By 2020 we will help more than a billion people take action to improve their health and well-being.



HEALTH AND HYGIENE

By 2020 we will help more than a billion people to improve their hygiene habits and we will bring safe drinking water to 500 million people. This will help reduce the incidence of life-threatening diseases like diarrhoea.



NUTRITION

We will continually work to improve the taste and nutritional quality of all our products. By 2020 we will double the proportion of our portfolio that meets the highest nutritional standards, based on globally recognised dietary guidelines. This will help hundreds of millions of people to achieve a healthier diet.



GREENHOUSE GASES

Halve the greenhouse gas impact of our products across the lifecycle by 2020.*



WATER

Halve the water associated with the consumer use of our products by 2020.**



WASTE

Halve the waste associated with the disposal of our products by 2020.*



SUSTAINABLE SOURCING

By 2020 we will source 100% of our agricultural raw materials sustainably.



BETTER LIVELIHOODS

By 2020 we will engage with at least 500,000 smallholder farmers and 75,000 small-scale distributors in our supply network.



REDUCING ENVIRONMENTAL IMPACT

By 2020 our goal is to halve the environmental footprint of the making and use of our products as we grow our business.*



ENHANCING LIVELIHOODS

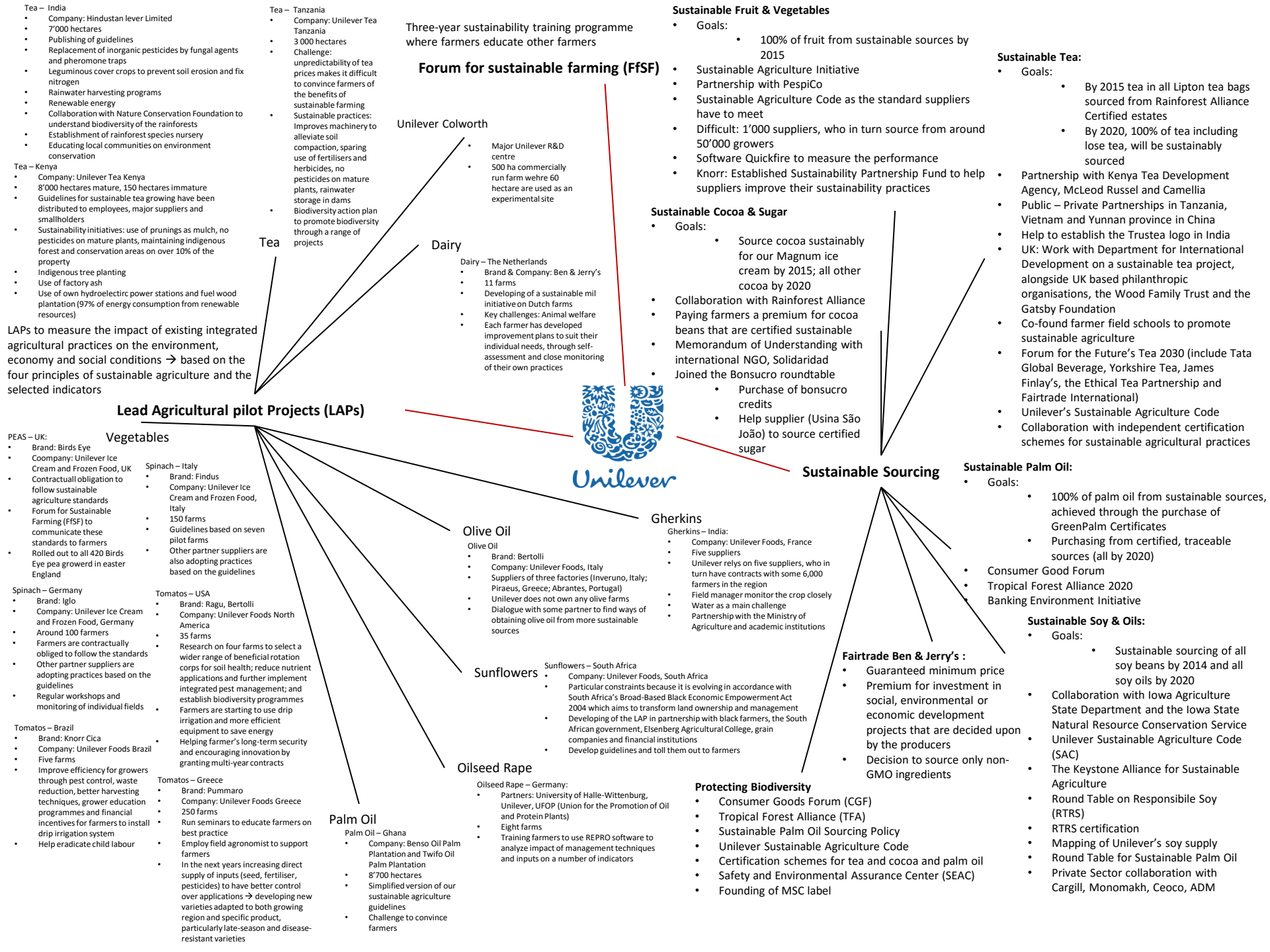
By 2020 we will enhance the livelihoods of hundreds of thousands of people as we grow our business.

PEOPLE

Healthy employees and better workplaces.



“We believe that as a business we have a responsibility to our consumers and to the communities in which we have a presence. Around the world we invest in local economies and develop people’s skills inside and outside of Unilever. And through our business and brands, we run a range of programmes to promote hygiene, nutrition, empowerment and environmental awareness.”





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- Consumer Goods Forum (CGF)
- Tropical Forest Alliance (TFA)
- Sustainable Palm Oil Sourcing Policy
- Unilever Sustainable Agriculture Code
- Certification schemes for tea and cocoa and palm oil
- Safety and Environmental Assurance Center (SEAC)
- Founding of MSC label

- Sustainable Tea
- Unilever Colworth
- Sustainable Soy & Oils
- Sustainable Cocoa & Sugar
- Sustainable Palm Oil
- Sustainable Fruit & Vegetables
- Sustainable Tomatoes
- Sustainable Gherkins
- Fairtrade Ben & Jerry's

- Forum for sustainable farming (FfSF)



Evaluating 'Well-Doing' in RRI

	Constructive (input requirements)	Productive (transformation)
Responsibilisation	<ul style="list-style-type: none"> ▪ Actor inclusion ▪ Robustness of the knowledge base ▪ Capacities for learning ▪ Embedding of responsibility <p>Syngenta Nestle</p>	<ul style="list-style-type: none"> ▪ Actors change behavior / attitude in line with new understandings of responsibility <p>Unilever</p>
Managing contestation	<ul style="list-style-type: none"> ▪ Procedures and 'rules of the game' ▪ Transparency ▪ Trust in the de facto governance process <p>Syngenta</p>	<ul style="list-style-type: none"> ▪ Governance arrangements align with or are changed towards input requirements (constructive) <p>Nestle Unilever</p>

RRI – Provides a frame for responsibility that Industry likes

*“Responsible Research and Innovation (RRI) is a transparent, interactive process in which societal actors and innovators become mutually responsive to each other with a view on the ethical acceptability, **sustainability and societal desirability of the innovation process and its MARKETABLE PRODUCTS.**”*

(von Schomberg 2011)

Conclusions

- Reliance on two core approaches to responsibility
 - Scientific Ethic controlled by the Scientific Community
 - Voluntary Standards controlled by the Multi-stakeholder Initiative Industry
- Each company relies very strongly on their own internal codes of conduct
 - “of course there are ‘fireable’ activities”
- But companies also utilise the regulatory uncertainties and inconsistencies to their advantages by strategically positioning their research programs within more permissive regulatory environments (e.g., research on biotechnology takes place outside of Europe)
 - Strong responsibility towards science that can improve sustainability through technological solutions?
 - Pre-emptive tactic to avoid citizen and public controversy over socially unsustainable practices and thus shirk the responsibility of responding to the needs of society?

Risks to sustainability posed by RRI

- Fashionable discourse within the European Commission
 - “has become an acronym”
 - Is “pervasive” in Horizon 2020
- RRI is taken up by additional actors, in particular funding agencies and research consortia and institutes – for their own reasons
 - Macro level: societal discourse (e.g., Ideas about future world; roles/repertoire division of moral labour. EU Code of Conduct for Responsible NanoST Research)
 - Meso level: funding agencies, branch organizations consortia (New Networks)
 - Micro level: Micro-level: scientists (in the lab), Industrialists/firms (e.g., “relevance”, ‘fictive script’, Corporate Social Responsibility, Transparency)
- Provides MNCs a ‘new frame’ to justify how responsible they are being in for the sustainability of agri-food systems



Fin

Allison Loconto, Chargée de recherche

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