



Sustainable Intensification of Cocoa Production

How to ensure supply meets global demand

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- Introduction to Syngenta
- Supporting Africa's farmers
- Defining Sustainable Intensification of Cocoa Production
- Our contribution to improve productivity
- Demonstrating the proof of concept
- Our suggestions

Introducing Syngenta – a global Agribusiness Company



Over
\$1 billion
annual R&D investment
and more than
5,000
R&D staff



Over
26,000
Employees
in some **90**
countries



\$13.3bn
sales in 2011

Helping small and large farms meet the challenges of global food security

Our ambition

is to bring greater **food security** in an environmentally **sustainable** way to an increasing populous world by creating a **worldwide** step-change in farm **productivity**



8M

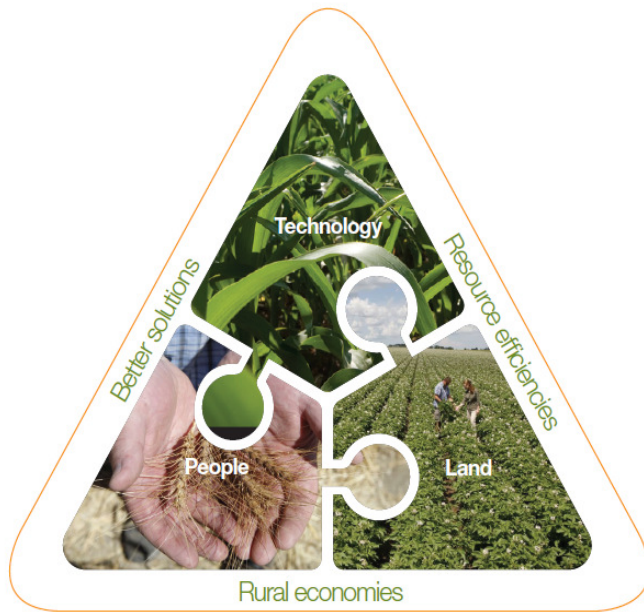
large-scale farms
>100 Ha



450M

smallholder farms
~1.0 Ha

Grow more from less...for food security



Resource efficiency	Better solutions	Rural Economies
Preserving the land: <i>We need to increase productivity on existing farmland.</i>	Choices on the farm: <i>We need enabling and transparent regulations, which make safe technologies available to farmers.</i>	Building markets: <i>Farmers need supporting infrastructure and access to markets, finance and information.</i>
High stakes for water: <i>We need solutions that increase water efficiency.</i>	Accelerating innovation: <i>We need mechanisms to share innovation.</i>	Valuing farm work: <i>Rural economies carry the weight of feeding the world; farming needs to be worthwhile and profitable.</i>
Vitality of biodiversity: <i>We need to protect the diversity of nature to secure our food supply.</i>	Sharing knowledge: <i>We need new partnerships to raise agronomy skills and share expertise.</i>	Community development: <i>We need agriculture to spur socio-economic development of rural communities.</i>

Breakthrough ideas and achievements come from collaborating beyond boundaries



Delivering new technologies to drive land productivity

Innovate

Beyond single products,
Crop specific, Partnerships



Promoting **integration** and **recognition**



COMMITMENT

NUCOFFEE brings together **Roasters, Growers and Cooperatives**, creating opportunities for real **sustainable business partnerships**

NUCOFFEE **preserves the origin** of the coffees and returns a premium for their quality **enabling growers to reinvest in their farms and community**

NUCOFFEE **Trip to Origin** – Opportunities for roasters and growers to **exchange knowledge and share their passion for coffee**.



PLENE: Focus on efficiency and sustainability



The first integrated mechanized planting system for sugar cane

15%

Cost reduction for growers



Healthy seedlings production at Syngenta nurseries

Disease-free
Traceable
Genetic warranty



Production and processing units

Cleaning and cutting
Treatment with Syngenta technologies
Packaging



Planting

Minimal tillage
High productivity
Better use of natural resources



Labor

Less manpower
Greater efficiency
Better working conditions



Continued value creation

Faster germination
Increased resistance
Complete crop protection program
Greater convenience and reduced cost

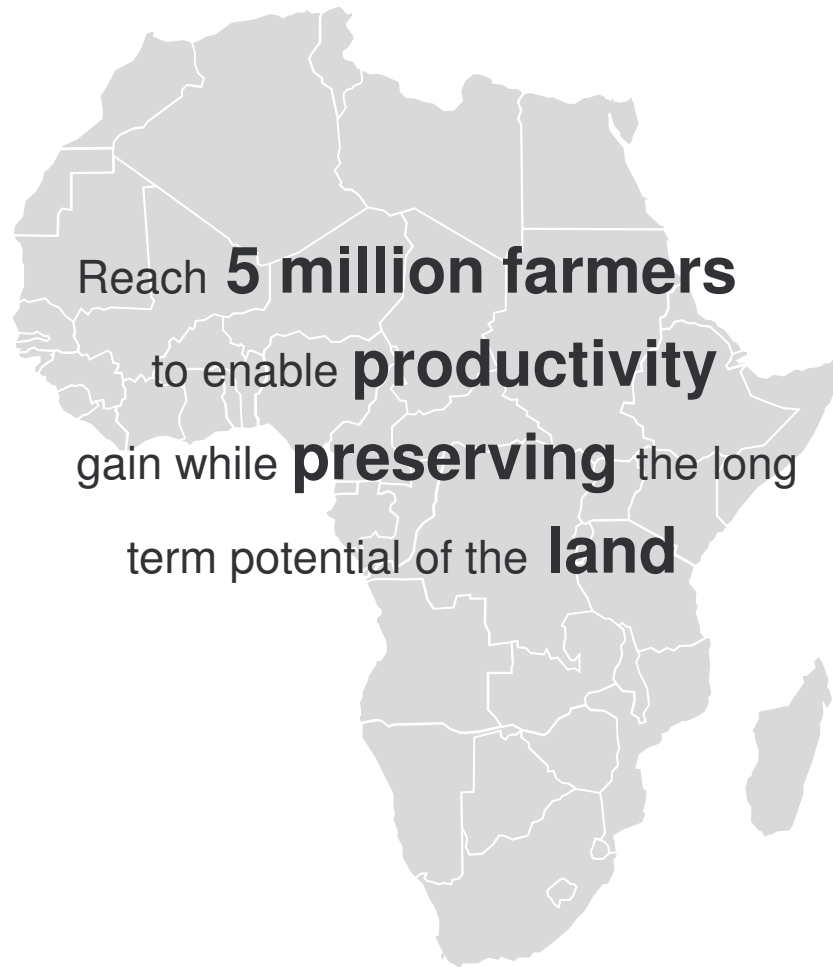
Committing to support farmers in Africa

Africa



Investment in African agriculture to bring real and sustainable change

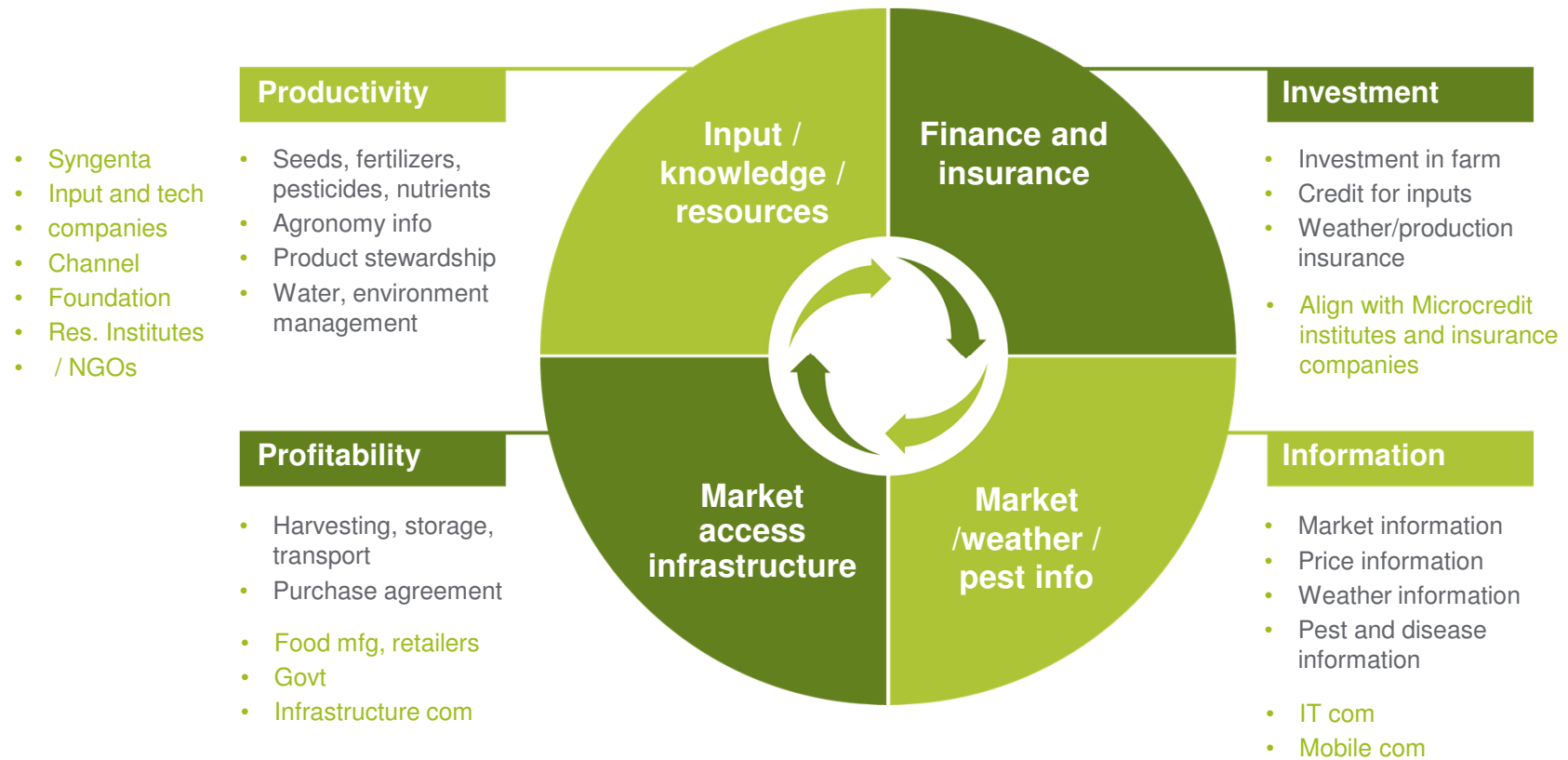
Syngenta commitments to African agriculture



Over the next 10 years, we will

- Link people, land and technology
- Address food security and poverty
- Invest \$500 million over time
- Launch Agriculture Productivity Partnerships

... and providing solutions to all the barriers smallholders face



Cocoa productivity needs to rise to meet demand

Demand will increase

- Increase of world population
- Increase of world consumption
- Increase of cocoa uses

Productivity must follow but

- Not enough available land
- Poor levels of production
- Competing crops for land

Professional farming the solution, but

- Limited access to innovative inputs
- Educational gaps
- Remuneration for growers marginal

Demand of 5 million tons =
1.5m hectares more land

or

improve productivity by 25%
on existing growing area

by

increasing yields from 350
to > 500 kg per hectare

What does sustainable intensification for a cocoa farmer look like?

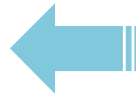


Improving crop
productivity



Access to
quality inputs

Building rural
prosperity



Increase
crop income

Reducing agriculture's
environmental footprint



Improve
knowledge

What are the bottlenecks for productivity ?



And can we overcome them?

Education & Husbandry

Build growers skills to produce better quality and higher yields. Complement farmer training, do it together and everybody will benefit.

Fertilizers & new trees

Scale-up great initiatives to rejuvenate older plantations and allow growers access to sustainable source of fertilizers.

Crop Protection

Today's cocoa pest and disease stands for \$2 billion losses. Access to high quality technology to improve yield by 20 - 40%.

Post harvest management

We can't afford to lose a single kg after harvest. Harvesting high quality cocoa free of disease and pest is a first step, but many to follow.

Syngenta's contribution in the cocoa value chain

Our contribution
to trigger change



Syngenta has a proven record in delivering quality crop protection solutions for cocoa



R&D

- Global MRL setting
- Reduced copper dependency
- Best use of application technology
- Post harvest quality protection



Portfolio

- Established brands



- New modern brands



Partnerships

- Ensuring grower access to crop protection products e.g. Ivory Coast
- Support initiatives: Nestlé Cocoa Plan RCI
- Collaboration: Cargill, Ecom, ADM others
- Lead initiatives: Camcoa 300 Cameroon

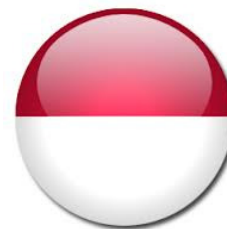
Demonstrating the proof of concept



Camcoa 300 in Cameroon



Partnership in Ivory Coast



Prosperity in Indonesia



Ivory Coast : Contributing to the Nestlé cocoa plan.

Pilots initiated in 2012



Syngenta role

- ▶ Supporting with all Crop Protection elements
- ▶ Coordinate with partnership
- ▶ Communicate achievements
- ▶ Provide trainings and support demo farms

The partners

- ▶ Nestlé, Cocoa Traders
- ▶ Crop Protection Distributors
- ▶ Officials

Offer for growers and cooperatives

- ▶ Training pest and disease identification
- ▶ Training safe use and proper application of pesticides. Recognising faked products.
- ▶ Support preparation for certification

Achievements in 2012

- ▶ 4 cooperatives in the pilot
- ▶ 1 demonstration farm operational
- ▶ First positive effect of yield improvement > 50 %

Cameroon: “Camcoa 300”:

Multi-stakeholders partnership to support ambition
to produce 300.000 tons cocoa in Cameroon



Syngenta role

- › Coordinate partnerships and manage projects
- › Communicate achievements
- › Provide trainings and support demo farms

The partners

- › MUCADEC : Cooperative Bank
- › CED : Development centre
- › Fakoco : Cocoa Trader
- › FIMEX and JACO : Distributors

Offer for growers and cooperatives

- › Training pest and disease identification
- › Training proper application of pesticides
- › Training postharvest quality management
- › Development entrepreneurial spirit
- › Opening of savings accounts for grower
- › Support preparation for certification

Achievements in 2012

- › 9 cooperatives and 3100 growers in the project
- › 8 demonstration farms operational
- › 1400 growers trained
- › 650 new bank accounts opened
- › First positive effect of yield improvement + 40 % – 100 %

Indonesia: “Cocoa for prosperity”

Multi-stakeholders partnership to drive increase in productivity & quality; Building on pilot success, expansion planned for 2013

Background

- Old cocoa trees
- Low quality of beans
- Productivity decline
- Reduction in revenues
- Area loss



Significant market challenges gave rise to: “Cocoa for prosperity”



“Cocoa for prosperity”: key elements of program:

- Representatives from wide range of stakeholders
- Training is a key feature
- Seeing is believing: “Cocoa Learning Centres”



Pilot results supportive of program scale-up!

- ✓ Participating farmers report 40%-200% yield increase
- ✓ 1200 growers to be trained by mid 2013

Final suggestions



**We can increase productivity
in a sustainable way**



**But we will only succeed by
working together in supporting
professional cocoa farming**



Thank you

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