

# FUTURE OF FOOD

an exploration of the global food system

## How to feed the growing middle class responsibly?

Report  
Future of Food seminar  
São Paulo, Brazil  
27-28-29 June 2013  
Chair: Hugo Bethlem

**Schuttelaar** & partners 

Seminar  
Report

How to feed the growing  
middle class responsibly?

27-28-29 June 2013  
São Paulo, Brazil

**FUTURE OF FOOD**  
an exploration of the global food system



# Table of contents

## 04 Introduction

---

- 04 Introduction (Future of Food and Schuttelaar & Partners)
- 05 Chairman, Hugo Bethlem: 'The caterpillar or the butterfly'

## 06 Block one

The growing middle class, its power and regional differences.

---

- 06 Marcelo Drügg Baretto Vianna: 'Brazil: Economic Outlook, Performance and Forecast'
- 08 Funing Zhong: 'Food demand & supply in China: Impact of the growing middle class'
- 10 Ram Badan Singh: 'The Future of Food in India: Feeding 1.4+ billion by 2023'
- 12 Block 1 Working Group Session

## 14 Block two

Harnessing the power of the middle class; the role of push and pull factors.

---

- 14 Roberto Rodrigues: 'Brazilian Agribusiness'
- 16 Simón Barquera: 'A healthy choices logo on food in Mexico?'
- 18 Meetu Kapur: 'The Agrofood Industry's response to shifts in demand'
- 20 Block 2 Working Group Session

## 22 Block three

Regional solutions for global issues.

---

- 22 Peter Bakker: 'Food sustainability and health must be addressed simultaneously'
- 24 Marina Grossi: 'How CEBDS can assist in making the most of Brazil's agricultural opportunities'
- 26 Peter-Erik Ywema: 'Memories are short-lived, but sustainability deserves a long-term vision'
- 28 Andree Georg Girg: 'How can Bayer help to close the gap between what is needed, and what is available in agriculture?'
- 30 Block 3 Working Group Session

## 32 Seminar conclusion

---

- 32 Alex Atala: 'Cooking is the main link between nature and culture.'
- 34 Action points

## 36 Site visits

---

- 36 Sakata Sweet Grape Tomato farm and NK packing house
- 38 Pão de Açúcar Green Store
- 40 Cities Without Hunger

## 41 Programme overview

---

- 41 Programme overview

## 42 Participant list

---

- 42 Participant list

## 43 Sponsors

---

- 43 Sponsors

# Introduction

This report summarizes the presentations and discussions of the fourth Future of Food seminar, 'How to feed the growing middle class responsibly?' that took place in São Paulo, Brazil, 27-29 June 2013. The Future of Food seminars are an initiative of agrofood strategy and communications consultancy Schuttelaar & Partners, to bring together leading stakeholders from all over the world to discuss actions to face the emerging issues in the global food system.

This fourth seminar has been realized in cooperation with Bayer Cropsciences, Grupo Pão de Açúcar, the Dutch Ministry of Economic Affairs, IDH Sustainable Trade Initiative and GS1 Brazil.

While thousands of people from Brazil's ever growing middle class crowded the streets of Rio, São Paulo and other Brazilian cities to demand respect from their government, the fourth Future of Food seminar discussed a directly related and more fundamental issue. The growth in food production is slowly decreasing, while consumers in all continents demand more and better food. In the first Future of Food seminar (Brussels 2008) the role of technology has been discussed with regards to bridging the gap between the consumer's demands and natural sources. Sustainability is the key word; the global food industry inevitably has to grow into a sustainable food system to survive. The retail and financial sectors have an important responsibility in this respect, we learned in the second seminar (London 2010). As in the third seminar, in Lausanne 2011, the discussions urged us to shift focus toward the largest emerging economies, China, India and Brazil, it was a logical step to put the rising food demands of the growing middle class in these countries upfront. Not as a problem, but as a challenge and an opportunity. From the results of the seminar in Lausanne it was a logical step to locate the seminar in Brazil, not only home of a fast growing middle class but also a country with a great potential and ambition in future food production.

The Brazilian seminar revolved around the question 'How to feed the growing middle class responsibly?'. This led to new areas that have been explored in the discussion sessions,

such as the interaction between more sustainable and healthier, being the two main components of responsible. There are many initiatives on sustainable food, and many on healthy food, but where do they meet?

Another new area was how the three emerging countries differ and can learn from each other: India with its numerous smallholder farmers, China where agricultural production cannot keep up with economic growth, and Brazil with a challenge to match its high responsibility for biodiversity with its even higher ambition for growth.

Through a series of high-level, strategic working group sessions with key stakeholders and a series of inspiring site visits, we arrived at four shared conclusions. These were handed over as action proposals to Alex Atala, founder of the ATÁ Institute on sustainable sourcing from the Amazon, and one of TIME's 100 most influential persons. We have also sent the action proposals for consideration to Peter Bakker, chair of the World Business Council on Sustainable Development, due to his previous involvement in the Future of Food Initiative. We believe that these action proposals can play a role to further the discussion and inspire individuals to take action.

As the initiators of the Future of Food seminars, we strongly believe in the importance of this discussion. At Schuttelaar & Partners we focus on achieving greater sustainability and health with the help of socially responsible technology. In all of our work, we rely on a combination of science, social dialogue and good sense; three pillars that we believe should support a high-level discussion on the future of the global food system.

We are already looking forward to the fifth Future of Food seminar!

Best regards,  
The founding fathers of the Future of Food seminars,  
Edwin Hecker and Rutger Schilpzand

## The Future of Food is coordinated by:



**Edwin Hecker**  
Managing Partner  
Schuttelaar & Partners



**Rutger Schilpzand**  
Managing Partner  
Schuttelaar & Partners

# Hugo Bethlem

Hugo Bethlem brings more than 35 years of experience in the Brazilian Retail Industry to the Future of Food seminar. For almost 12 years, Mr. Bethlem was a senior executive at Grupo Pão de Açúcar. He left his last position as Senior Vice President of Corporate Relations in August of last year. Currently Mr. Bethlem is investing in smartphone apps for retail and the fast food business, as well as introducing Brazil to 'fast culinary food' with the Quasi Pronti brand.

Mr. Bethlem has 11 years of experience with Carrefour Brazil as CFO, and was nominated Financial Executive of the Year by IBEF SP in 1991. He holds a degree in Business Administration and Accounting from FMU São Paulo and specialisation courses in strategy and entrepreneurship from Cornell, USA; Babson, USA, FGV, Brazil and IMD, Switzerland.



## The caterpillar or the butterfly

With the backdrop of thousands of Brazilians taking to the streets to protest, it is clear that the people want change. Although the spark was a R\$0,20 rise in the cost for a bus ticket, the problems and unrest have much deeper roots; corruption, poverty and deteriorating social services.

The effects of the protests are already becoming clear, as politicians finally see the power of the people they are meant to represent. The voice of the streets, most clearly represented by Brazil's rising middle class, was heard and the public-transport fare increase was revoked. Although an iconic victory, it is not enough to satisfy the low-income and especially middle-income class citizens, who demand better education, health, infrastructure and responsible leaders.

## The challenge of the growing middle-class

The leaders present at this seminar also face a big challenge with regards to the increasing demand coming from this middle-income class: to change the way we waste food from pre-harvest to post-consumption; to provoke a new way of thinking about consumption, food waste and garbage management.

**“As a consumer, you can act as a caterpillar and consume everything around you, without any regard for your surroundings, or act as a butterfly, eating only what is necessary and being aware of the world around you, whilst pollinating other fields – they are the same individual.”**

In Brazil alone, 60 million people entered the middle class from 2003 to 2012. The familiar socioeconomic pyramid is quickly becoming diamond-shaped. The growing middle class means different patterns of consumption; more out-of-home meals (currently 65 million per day) and an increased demand for ready-to-eat and ready-to-cook foodstuffs. The same trend is visible in other Latin American countries, as well as in China and India.

It is clear that this new pattern of consumption is producing more food-waste and more garbage, as well as an increased demand for commodities and mounting pressure on the agrofood-chain to produce more and more, faster and faster. Although many countries have been through the same developments, what are we going to tell them; 'Sorry you're late, everything is consumed already'? This is not a fair or realistic option. What we need now more than ever is a sustainable culture, through changing habits, embracing technology, increasing public trust and supporting private initiatives.

As consumers, we have the choice to act as two versions of the same individual; you can act as a caterpillar and consume everything around you, without any regard for your surroundings, or act as a butterfly, eating only what is necessary and being aware of the world around you, whilst pollinating other fields. They are the same person, we only need to realise that we have a choice to be the one or the other. The opportunity is here and the choice is ours!

We need to inspire more and more people to embrace sustainable values and to act on those values with sustainable behaviour. Laws and regulations tell you what you can do, but values tell you what you should do.

# 1 The growing middle class, its power and regional differences



## Marcelo Drügg Vianna 'Brazil: Economic Outlook, Performance and forecast'

Marcelo Drügg Vianna is currently consultant and advisor for the Inter-American Development Bank (IDB) and retired from Deloitte as a Leader Partner for Sustainability & Corporate Social Responsibility Services in 2011. Here, he also served as member of Deloitte's Global Council for Sustainability and Climate. From 1998 until 2012, Dr. Vianna was also Vice President to the International Chamber of Commerce (ICC) in Brazil, as well as Chairman of the ICC Energy and Sustainable Development Committee. He has also served as an advisor for the United Nations Economic Commission for Latin America and the Caribbean and holds a Master's degree in Economic Engineering. This, in addition to his PhD degree, was earned at the University of Birmingham in England.

### Global setting of Brazil

Despite of moving from 6th to 7th place in terms of % of global GDP, Brazil's real GDP is still growing at an estimated 3,5% in 2013. Brazil, the 5th most populous country in the world, has an unemployment rate that is currently at levels below historical average rates. Although Latin America's GDP growth has decelerated, there are no signs of structural depression; the national demand has been supported so far by access to credit and expansion of labour force, and Brazil's banks, although not improving, are still in decent shape.

### Brazil and the growing middle-class

The Brazilian government has in recent years been stimulating the economy to grow by protecting its national industry from foreign competitiveness. In Brazil, the biggest source of GDP is the transformation industry (14% of total), while only 6% of the GDP comes from the agricultural sector. This is likely a result from the government's 'Brasil Maior' programme, which is focused on increasing Brazilian industry competitiveness and promoting technological innovation.

A growing economy and increasing wages means that more than half (55,1%) of the Brazilian population was in the middle class (earning between R\$1200 and R\$5174) in 2011, compared to 37,6% in 2003. The middle class is expected to grow further by a total of 35-40 million individuals in 2013, meaning that the increase in consumption is going to continue to grow.

The volume of retail sales has been high since 2003, with no major effects from the financial crisis of '08-'09. The high retail sales and increasing demand for luxury and/or processed foodstuffs due to a growing middle class are reflected in private investments, which are focused mainly on retail related business such as supermarkets and wholesalers. However, the government-issued policies and tax-breaks for the industry, meant to maintain national consumption in the short term, could ultimately lead to an increase in prices for food and commodities. Food prices are currently 40% higher than four years ago, and show the highest volatility recorded in the last 30 years. This volatility in commodity prices is expected to continue in the coming years, and the Brazilian consumer market will remain heated due to income maintenance and low unemployment rates.

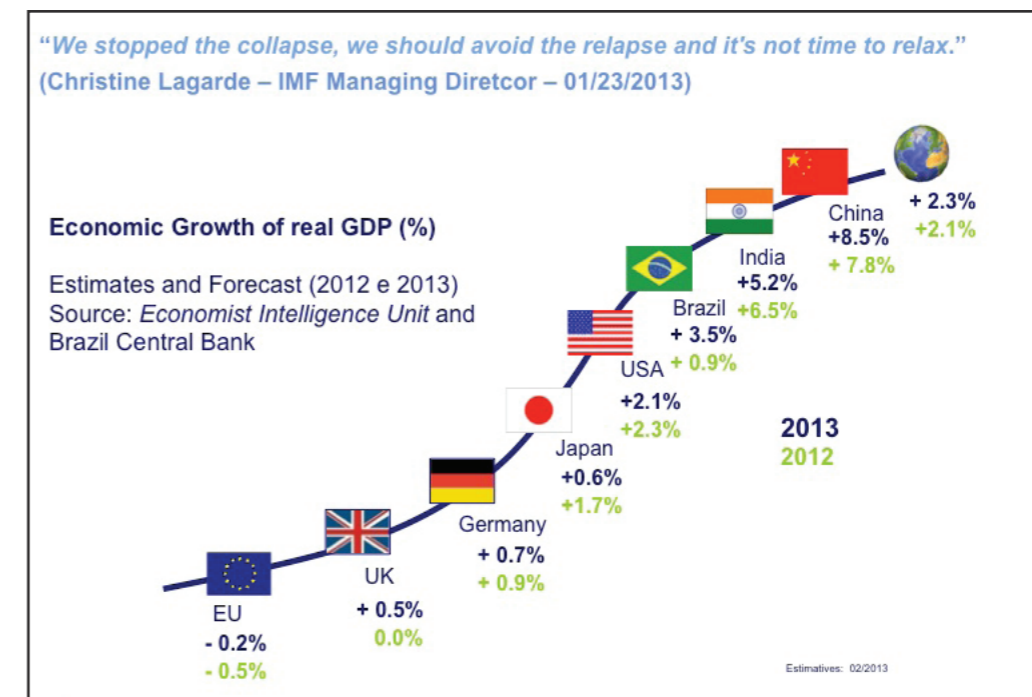
### Environmental issues of growing demand

The growth of the middle class in Brazil is a good economic development, but there still exists a very unequal access to education, health, water, and electricity, as well as opportunities. Despite the increase in wealth, widespread poverty still prevails in Brazil. This poverty can be directly linked to environmental degradation, which can be mutually reinforcing.

The urban areas, and especially the poorer regions, face urgent (environmental) challenges the coming decades: inadequate housing, poor public transport, air and water pollution, inadequate waste disposal and land degradation. Although most Latin American countries have national institutions devoted to environmental and natural management and conservation, the political priority given to these areas is usually low.

“Companies have a challenge, and an opportunity, to incorporate sustainability and social responsibility in their business model, and move towards the 'green economy'.”

In order to tackle these issues, closer cooperation of the agrofood-sector with government is required. Because of increased public interest in sustainability and CSR, the role of the private sector has changed over the past decade in Latin American countries. National enterprises and multinational firms have implemented sustainability and Corporate Social Responsibility programs and environmental, social, health and safety management systems, and Global Reporting Initiative standards. Companies have a challenge, and an opportunity, to incorporate sustainability and social responsibility in their business model, and move towards the 'green economy'.





## Funing Zhong 'Food demand & supply in China: impact of the growing middle class'

Funing Zhong is currently affiliated with the College of Economics and Management, Nanjing Agricultural University, where he is Director of the Research Institute of Agricultural Economics and of the International Center for Food and Agricultural Economics. Prof. Zhong has served various advisory committees to the Ministry of Education and has been advisor to the FAO, World Bank, CGIAR and IFPRI. He obtained his PhD in Agricultural Economics at the University of Manitoba, Canada.

### Trends in demand

In recent years, the population growth in China has been slowing down, but the demand for food has been growing unabated. China has even moved from cereal exporter to cereal importer over the last 5 years. Funing Zhong, Director of the Research Institute of Agricultural Economics and of the International Center for Food and Agricultural Economics at Nanjing University, asked a pressing question 'Why is the demand for food and imports growing at such a higher rate than the increase in population?'

The trends in demand are population growth, but also income growth and demographic changes. These demographic changes (age & occupation structure, rural-to-urban migration) are changing the basic energy-intake demand, but also the dietary structure. The move from rural to urban, which is expected to continue the coming years, is driven by the higher income and income growth in urban areas compared to neighbouring rural areas.

Although the change in age composition has decreased the per capita energy intake by 2-3% since 2000, the population is still increasing, and rural-to-urban migration has also increased the energy intake by 2-3% since 2000, whilst the resulting changes in dietary structure may have led to another 5% increase in total grain demand (most strongly seen in the demand for maize) in the same period.

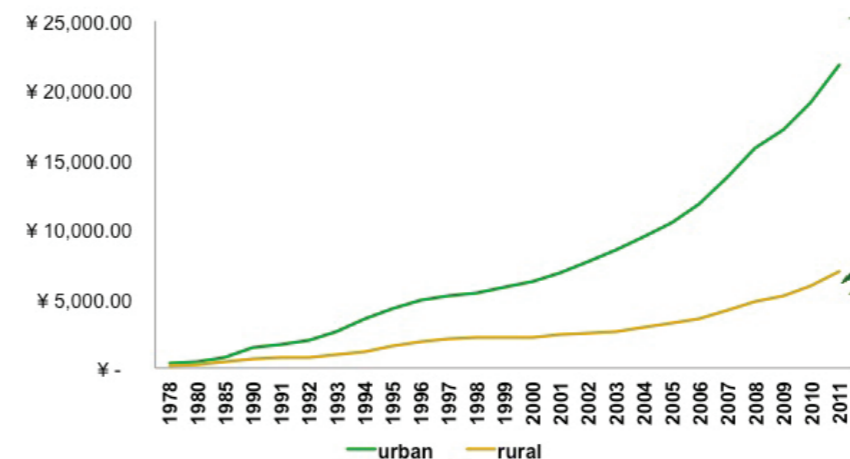
### Trends in supply

Yield and output are still increasing year-over-year, but China's agricultural sector is starting to see the resource constraints: only 1/4 of the world average on per capita arable land, declining due to urbanisation; 1/3 of the world average on per capita fresh water supply, with fast growing demand for non-agricultural use, and; quickly reducing labour resources due to rural-to-urban migration, pushing a move towards automation and cultivation of only high-value products with high margins due to rising labour costs.

## “ Urbanisation is driving the ever increasing demand for luxury foodstuffs. ”

Currently, there is an ever faster increasing demand, but a slowing down increase in local supply. Trends in supply are increased import of edible oil and seeds, as well as import of cereals and meat (especially mutton and pork, the latter of which comprised about 1/4 of the global trade). Consumption of edible oils and animal products has always been higher in urban areas, and urbanisation is driving the ever-increasing demand for luxury foodstuffs. Due to melamine scandals in China, the import of milk powders is also steadily increasing.

## Income growth & distribution



Per capita disposable income has always been higher in the urban areas; the ratio was 2.57:1 in 1978, reduced to 1.86:1 in 1985, and increased to 3.13:1 in 2011.

“ For the success of any of the measures aimed at easing constraints of the agrofood-chain, public acceptance is required, which can only be achieved through education of the middle class. ”

### Perspectives for the future

Population growth is slowing down, and is expected to level out at 1.45 billion in 2030. Income growth is also slowing down (6-8% per year), and urbanisation will continue (65% by 2030). The demand from the middle class will focus on higher safety and quality standards, and nutritional concerns will become a priority. Demand for and imports of edible oils & seeds, cereals, and high-quality products such as animal products and other high-value produce will steadily increase with the growth of the middle class. Potential eases to the natural and socioeconomical constraints could be tightened regulations accompanied by (technological) innovations, supported by public funds, and reinforced by the growing middle class.

The middle class is already showing a significant pull-effect on the food chain, which will only increase in the coming years. For the success of any of the measures aimed at easing constraints of the agrofood-chain, public acceptance is required, which can only be achieved through education of the middle class.



## Ram Badan Singh 'The Future of Food in India: Feeding 1.4+ billion by 2023'

Ram Badan Singh, PhD from North Carolina State University, is currently the President of the National Academy of Agricultural Sciences of India and Chancellor of the Central Agricultural University, Imphal. Nationally, Prof. Singh has served as the Director of the Indian Agricultural Research Institute, New Delhi, and Member of the National Commission on Farmers. Internationally, he has served as Assistant Director General and Regional Representative for Asia and the Pacific Region of the FAO of the United Nations. In 2003, Prof. Singh was awarded the Padma Bhushan by the President of India – one of India's highest civilian honours. Proclaimed as Distinguished Alumnus of Banaras Hindu University, Prof. Singh has been awarded Doctor of Science (honoris causa) degrees from several prestigious Indian Universities.

### Agro-economic setting of India

"In India, agriculture matters!", are the first words of Ram Badan Singh, President of the National Academy of Agricultural Sciences of India and Chancellor of the Central Agricultural University, Imphal.

India has around 17.6% of the human and 15% of the livestock population globally. 52% of the population earns its livelihood in agriculture, which accounts for around 14% of the total GDP, but this number has been steadily declining over the years. Since 1975, which marks the start of the decline of the share of total GDP for the agricultural sector, also marks the increase in the share derived from the service sector, currently accountable for the largest share of total GDP.

The Indian economy and agricultural sector need a structural transformation; the income inequity between agricultural/non-agricultural labour is widening, sectoral convergence is poor, the Mahatma Gandhi National Rural Employment Guarantee Scheme is patchy, and labour availability is distorted. While rural employment is decreasing, non-farm rural self-employment (i.e. entrepreneurship) is increasing. Skill development and education are needed to fuel income growth and reduce rural poverty.

### The emerging middle class: India's great promise

In India, the middle class—growing steadily over the past decades, accompanied by a declining low-income class, and having reasonable economic security with per capita per day income of \$10 to \$50—constitutes nearly 100 million people, and this number is growing annually by roughly 13%. The new middle class is relatively young in India, and represents new aspirations for democracy, different consumption patterns and a strong interest in transparent and accountable political/economic institutions. If India is successful in avoiding the 'middle income trap' and can maintain its economic growth rate of 8-9%, it may be among the top 7 global economies in the next 10-15 years.

Due to the growing middle class, there is a shift in demand for foodstuffs, and thus a changing composition of agriculture in India. Sub sector shares of agricultural GDP derived from cereals and pulses have been decreasing over the last two decades, whilst those from horticulture and livestock have been steadily increasing, explained by the demand for more high value foods and animal products such as dairy.

### The science-led agricultural transformation

Technology in agriculture has been accepted with open arms in India, leading to higher productivity and higher absolute production of foodgrains, heralded as the Green Revolution. Significant yield gains have also been achieved in horticultural crops and India has emerged as world leader in production and productivity of some of the major fruits and vegetables. In the animal breeding sector, India is becoming a front runner by advancements in the area of animal cloning, among others. This adoption of feeding and breeding technology is fuelling growth in the productivity of the animal products sector. This is also true for the aquaculture and fish-farming sector, from which production of shrimp has proved to be a real 'top-dollar earner'. Nonetheless, there is still a large untapped potential of currently available agricultural technologies, which could improve productivity even further.

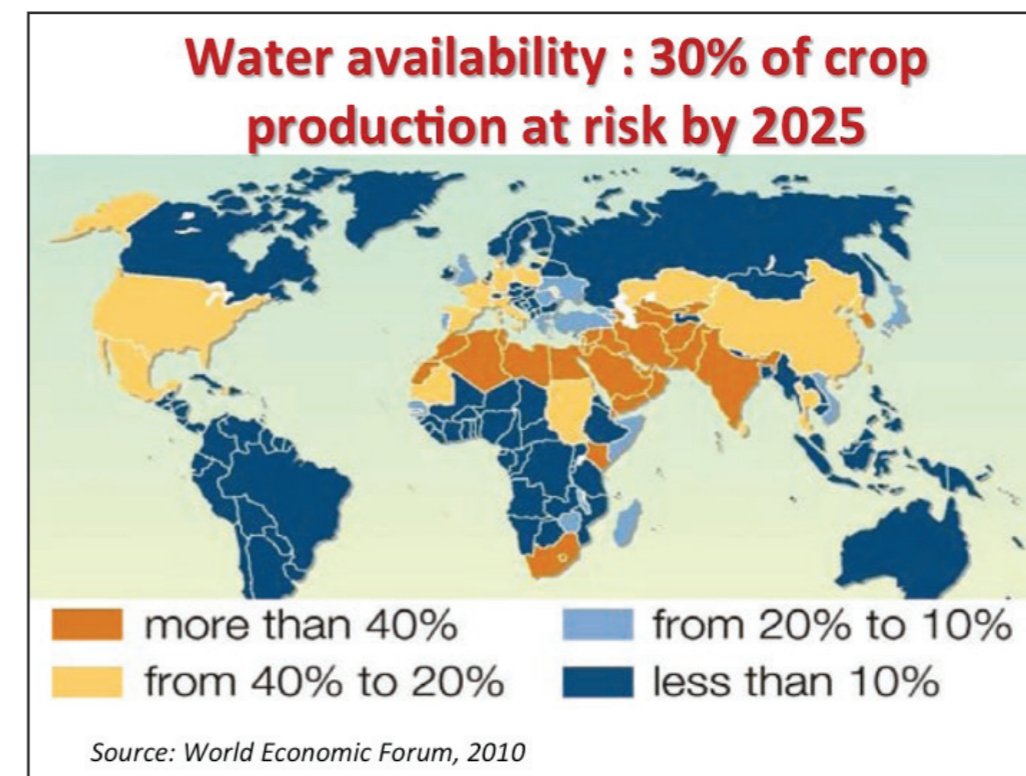
### The way forward

The population of India is projected to become the largest globally by 2030, surpassing that of China, with India still possessing only around 4.2% of the world's fresh water supply. By 2023 already, India will have an additional 150 to 175 million people, which need to be fed from shrinking land, water and biodiversity resources. An additional 25 million persons will enter the labour force by 2023, the majority of which will come from the rural areas.

In order to cope with the current and future developments, along with the accelerated productivity growth, India now needs to focus on agro-processing/value addition and prevention of post-harvest losses, the latter of which are currently estimated at \$12 billion annually. An important rationale behind this is that a grain saved is a grain produced, and unsafe food is no food. Additionally, corporations must be encouraged to multiply their investment and efforts all along the value chain and enhance their Corporate Social Responsibility activities.

**“A grain saved is a grain produced.”**

Finally, in cooperation with the agricultural sector, the government needs to establish climate smart agriculture (high productivity, resilience and greenhouse-gas mitigation), especially for marginal and smallholders. These marginal (< 1 ha) and smallholders (1 to 2 ha) should be a major focus, since they encompass 67% and 18% of the total farming households, respectively. In dairy alone, in which India is the world's number 1 producer in terms of volume, the country has over 10 million smallholders, and a total of 81,000 cooperatives.



# Block 1 Working Group Session

## The growing middle class, its power and regional differences

During the seminar the participants brought the discussion further in three break-out sessions, fuelled by information from the speakers. In the first working group session the discussion focused on the differences (and similarities) between Brazil, India and China (BIC) with respect to the growing middle class, to get a clear view of the topic.

### Defining what constitutes the 'middle class'

One of the first hurdles in the discussion was the differing definition of what constitutes the middle class in Brazil (annual household incomes of between \$1,176 and \$5,460), India (annual household incomes of between \$1,460 and \$14,600) and China (annual household incomes of between \$9,000 and \$34,000). Apart from an income that is within a certain range, a consensus among the participants was the access to disposable income, ownership of luxury products such as TVs, cars, mobile phones, and computers, and the option to regularly choose luxury food products instead of basic ones. One major source of the issues surrounding the consumption of the middle class is the general lack of habits and tradition in buying patterns as people emerge into this new class; lack of education and awareness of certain habits is a (potential) source of future and present problems regarding nutrition, resource depletion, pollution and environmental degradation, etc.

### Significant differences between Brazil, India and China with respect to the growth of the middle class

The most visible difference between Brazil, India and China is the sheer size of the population: China has the largest total population at nearly 1.4 billion; India is a close second at more than 1.2 billion, and Brazil is third with a population of more than 180 million. In terms of the total size of the population considered middle class, although difficult to determine exactly, India has the largest population at an estimated 240 million (20% of its total population), China weighs in at an estimated 225 million (15% of total) and Brazil has an estimated 90 million (50% of total) considered middle class.

Another difference between the BIC countries is the link to urbanisation and the role of the government. Brazil has seen a strong trend in urbanisation (currently, 84.6% of the population is urban), which was pushed by the Brazilian

government in order to facilitate the following emergence of the middle class. However, these efforts were not supported by adequate infrastructure, housing, education and public services, leading to much of the country's current unrest. In China (50.6% urban population) urbanisation and an emerging middle class occurred more or less simultaneously, where the Chinese government is investing in urban facilities, as well as promoting rural life in order to maintain a stable farming community. In India (31.3% urban population) the move from rural to urban is relatively much smaller; since agriculture is considered an important state-affair, the Indian government has a strong focus on promoting rural life in order to keep urbanisation down. However, urbanisation is a major driving force of the changing dietary structure, and thus of the changing demand, associated with the growing middle class in all three countries.

### Significant similarities between Brazil, India and China with respect to the growth of the middle class

A very important similarity in all three countries is the development of the national agricultural sector. In Europe and North America the agricultural sector has developed over many centuries and thus farm size, competition and agreements are more balanced. In the BIC-countries,



however, agriculture has exploded in the last decades and the balance of farm size, competition and business agreements is a challenge, which means national governments felt the need to intervene in their own way in order to structure the sector.

The national governments in all three countries seem to play a very visible role. This role can be restrictive, as bureaucracy is a problem in all three countries, but also in the form of strong government involvement in Chinese industry, Brazilian and Chinese market protection, and Indian agriculture. The government also has a supportive role, in the form of Brazilian investment in publicly available agricultural technology, Chinese development of urban facilities, and Indian programs for hunger eradication and investment in improving rural living conditions.

Despite strong government presence, or perhaps because of it, all three countries see a lack of information flowing from the governmental leaders to the public, and vice-versa; the same seems true for the industry. The leaders of the future will have to be the public leaders, who work with public policy, and focus on divulging information, education and transparency.

From a health perspective, all three countries are seeing the direct results of a growing and increasingly urban middle class population, with increased spending power, but limited knowledge of nutrition: obesity, and related illnesses such as diabetes, as well as malnutrition are quickly becoming two of the main public-health issues.

A development that is becoming more and more clear (and arguably has been the case for decades, but has gone partially unnoticed) is the role that women play as (financial) head of the family. As one participant noted, '65% of the new Brazilian middle class is financially headed by women,' which means that any successful change in the consumption behaviour and demand relies heavily on the decisions of this previously largely underestimated group. The same holds true for the production side, as smallholder farmers (also often women) are more and more recognised as having power to change the food-chain from the bottom up.

Finally, food loss, predominantly pre-harvest (in contrast to post-harvest food loss in Europe and North America), is a major problem that all three countries face. Combined with water waste, this calls for investment in technology and infrastructure for the agricultural sector and the entire value-chain.

### What can China, India, Brazil learn from each other?

One solution applicable to all three countries is the openness of agricultural markets, which are currently restricted, especially in Brazil and China. Although the DOHA Development Round was created for openness of agricultural markets, Brazil and China can still learn from India's bilateral trade agreements and free trade areas.

China could benefit from government initiatives such as Brazil's EMBRAPA, which has allowed development of agricultural technology that is available to the entire industry. The EMBRAPA model could be easily exported to other countries, and would be very helpful for further development of a sustainable agricultural sector. Although the Indian government has a positive stance towards the application of and research into agricultural biotechnology, it could also greatly benefit from structured investment in agricultural research.

### Block 1 Working Group Session Summary

- We need to change our consumption behaviour; women are becoming more and more important as the decision makers on the consumption side.
- Smallholder farmers can be an important driver for changes on the production side of the food-chain.
- We have a challenge of drilling the ideas of leaders down to the people, and vice-versa.
- Education of the middle class is required if we want to battle the growing double burden of obesity and malnutrition.
- Government needs to invest in PPPs for agricultural techniques, finance, stocking and distribution, as well as the openness of markets.
- Pre-consumption food waste is a major issue in all three countries.

# 2 Harnessing the power of the middle class; the role of push and pull factors



## Roberto Rodrigues 'Brazilian Agribusiness'

A well-known agribusiness leader and former Minister of Agriculture of Brazil (2003-2006), Roberto Rodrigues currently is Coordinator of the Getulio Vargas Foundation Agribusiness Center and Special Ambassador for the International Year of Cooperatives of FAO. He served as President of the prestigious Brazilian Rural Society and the Brazilian Agribusiness Association. He is also a member of the Board of a number of Brazilian producer's associations. In that capacity, Minister Rodrigues represents the Brazilian agribusiness sector in many advisory committees, such as the National Agricultural Policy Council, the National Monetary Council, and the National Foreign Trade Council. He also chaired the National Agribusiness Forum.

Looking at the prognoses of the ten biggest problems for the next fifty years, half of them are related to agriculture: energy consumption, water loss, food waste, environmental degradation and poverty. "So what is the next step?" Roberto Rodrigues, former Brazilian Minister of Agriculture, asks, "We're only having speeches, what do we really have to do?"

**“We're only having speeches; what do we really have to do?”**

### Brazil

Research by the OECD (the Organisation for Economic Cooperation and Development) on food supply and demand projects a 20% increase in world food production required to meet the market demand of estimated population levels in 2020. Brazil is one of the fastest growing agricultural producers, with output expected to rise by more than 40% between now and 2019/20. Are we prepared? Brazil managed to keep up for the last five years by technological advances, one of the key answers for realizing these projections. Despite the 217% increase of grain production in Brazil over the past 20 years, the increase is mostly due to yield increases, preserving an estimated 67 million hectares of natural habitat. Brazil is the main producer/exporter of several products, such as orange juice, coffee and sugar. Despite the economical meltdown the agribusiness is continually growing.

Currently, 44% of Brazil's energy mix consist of renewable sources, of which 15,7% comes from sugar-cane and 14,7% from hydroelectric sources, in contrast with the 7% average for OECD countries. Besides this advantage of energy independence, Brazil has several other competitive advantages: the first one being available land, as Brazil is in possession of 329,9 million hectares arable land. At the moment 72,2 million hectares is used for annual and permanent crops, next to 172 million hectares of pasture, and 85,7 million hectares still available for agriculture. The remainder is Government regulated and consists of national parks. The second advantage is a large working force present in Brazil, which will only continue to grow. The third advantage is the Brazilian Government's strong approach to technological progress; with active research

programs in biotechnology, nanotechnology, animal genetic improvement, agro energy, integration of crop-livestock-forest, zero-tillage and precision agriculture, agricultural inputs and mechanization, coordination of research and diffusion of technology.

### Brazil's "Low-Carbon Agriculture" plan

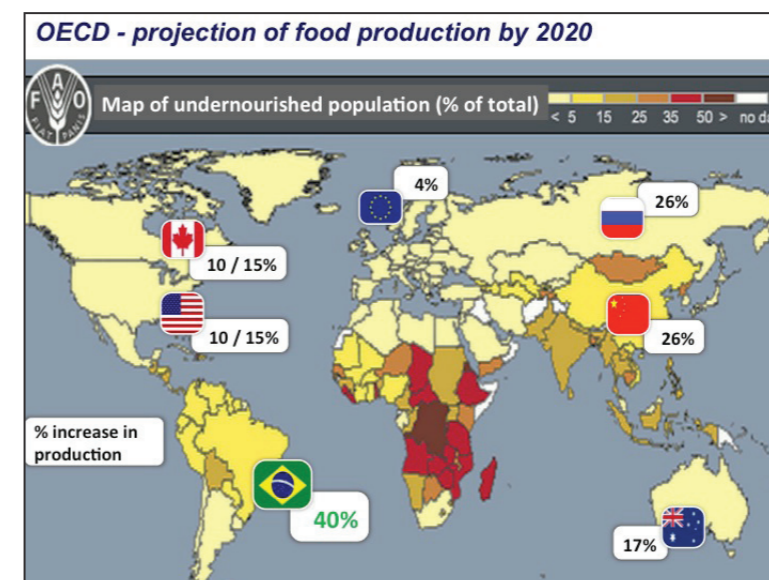
Currently Brazil is realizing the "Low-Carbon Agriculture" plan (ABC). ABC aims to stimulate a new sustainable agriculture, reducing global warming and mitigating carbon emissions, fostering 6 initiatives with goals for 2020:

- The Zero-tillage system is a way of growing crops from year to year without disturbing the soil through tillage. Zero-tillage is an agricultural technique, which increases the amount of water and organic matter/nutrients in the soil and decreases erosion. It increases the amount and variety of life in and on the soil. The goal is to expand the current 26 million hectares to 33 million hectares of crops established by Zero-tillage. This will reduce CO2 emission by 16 to 20 million tonnes by 2020.
- Recovery of degraded pastures. The goal is to transform degraded land into areas suitable for the production of food, fiber, meat and forests, thus recovering 15 million hectares and reduce CO2 emission by 83 to 104 million tonnes by 2020.

- Crop-Livestock-Forest integration, a form of sustainable land-use system that maintains or increases total yields by combining food crops (annuals) with tree crops and/or livestock on the same unit of land, either alternately or at the same time, using specific management practices. The goal is to increase system utilization by 4 million hectares and reduce CO2 emission by 18 to 22 million tonnes by 2020.
- Biological Nitrogen Fixation. The goal is to encourage the use of this technique for at least 5.5 million hectares, and reduce CO2 emission by 10 million tonnes.
- Planted forest. The goal is to expand planted forest area in 3 million hectares, reaching 9 million hectares in 2020.
- Animal waste treatment. The goal is to treat 4.4 million m<sup>3</sup> of waste from pig farming and other activities, thus reducing CO2 emission by 6.9 million tonnes.

### Food security

Food security has two faces; food supply (enough food) and production (safe food). The Brazilian Government is taking care essentially of food supply; the essential part of safe food production has less attention. Furthermore, there is a necessity of global governance in production systems, global stocks and the opening of the world agricultural trade (WTO). Food security will come; it depends on the cooperation of relevant countries with arable land, human resources and/or technology.







## Simón Barquera 'A healthy choices logo on food in Mexico?'

Simon Barquera has a long standing reputation in the field of nutrition. Currently the president of the nutrition board of professors at the Mexican School of Public Health and Director of the Nutritional Epidemiology Division at the National Institute of Public Health, he has also served advisory roles to the WHO, PAHO, IFPRI, UNICEF and the IAAE on nutrition, obesity and chronic diseases. Additionally, he is a member of the Latin American Scientific Committee of Choices International and of the advisory board in chronic disease and diet for the Ministry of Health of Mexico. Simon Barquera has been recognized as National Investigator by the Mexican Council of Science and Technology. He obtained his medical degree at the Universidad Autonoma Metropolitana in Mexico City and his MS and PhD degrees at Tufts University in Boston.

## Changing consumption patterns and obesity

Obesity is a highly prevalent health problem in all regions, age groups, and genders in Mexico, as well as most of Latin America. The obesity prevalence trends from 1999 to 2006 were among the highest documented in the world. "This trend is seen all over the world, and it is increasing at an alarming rate," emphasises Simón Barquera, President of the Nutrition Board of Professors at the Mexican School of Public Health. In Mexico, 12,2% of the total national mortality is associated with obesity, a total of 70% of the population is classed as overweight, a further 32,8% of which is classed as obese. Increase of obesity prevalence is highest in the most vulnerable populations, such as those living in poverty and those of young age.

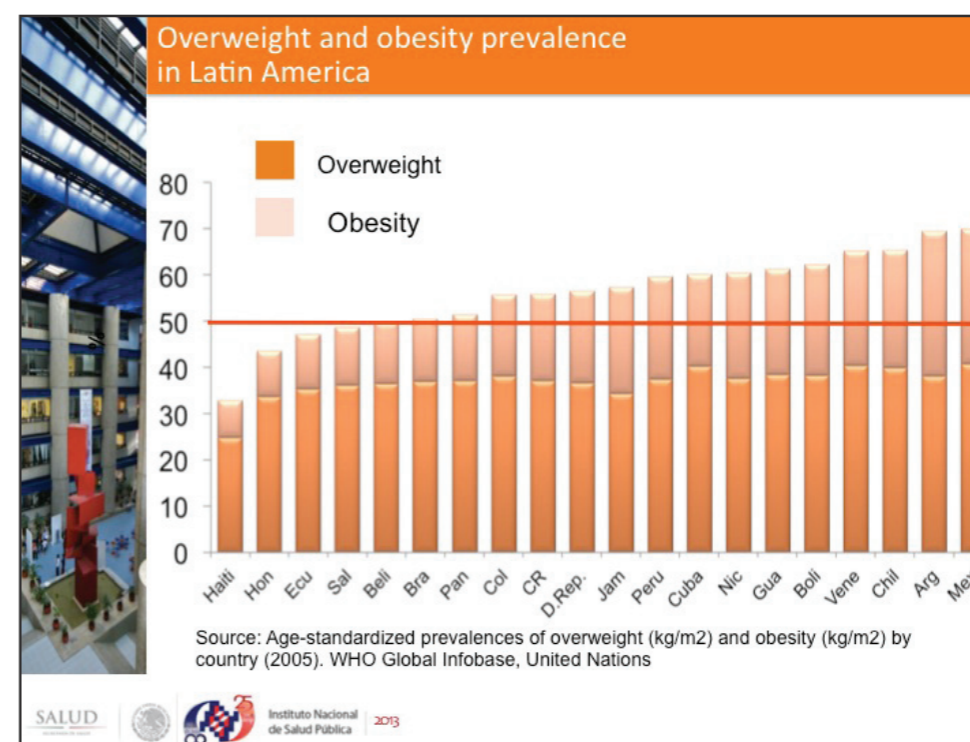
One major driver of overweight problems is an important shift in household food expenditure. For example, Mr Barquera notes that 'between 1986 and the year 1998, an enormous increase of expenditure on soda (37.21%) and refined carbohydrates (6,25%) was documented by our group. This change in expenditure results in a strong decrease of buying fruit and vegetables (29.33%), dairy (26,72%) and meat (18,75%).' Part of this change is driven by urbanization, increased female employment, and limited or no access to fresh and healthy food.

## Opportunities for action

Several actions could contribute to obesity prevention policies:

- Children spend only 4.5 hours at school, with many opportunities to eat unhealthy energy-dense foods; school meals should be replaced by healthier options.
- In Mexico the caloric beverage consumption contribute 20–23% of the total energy intake in the population (50% of which are sugar-sweetened beverages), and drinking water should be promoted as a healthy alternative.
- Food and beverage marketing to young children is not regulated, which is partly the cause of childhood obesity.
- The Government, in cooperation with schools, has to support and promote physical activity across the entire country.
- Industry must support Government initiatives aimed to prevent obesity, creating new products with healthier profiles and reformulating the existing ones focusing in reducing sugars, saturated and trans-fats and sodium in processed foods. At the same time, it must support and comply with labelling and marketing to children initiatives and norms.
- Current labelling schemes on products are not useful, and the nutrition literacy is poor. The food producer is responsible for all health and nutritional information on the package, often providing incorrect product information and misleading advertisements. A new system for labeling is required.

“ Industry must support Government initiatives aimed to prevent obesity, creating new products with healthier profiles and reformulating the existing ones. ”



## Front-of-pack food labelling system

The theory and the efficacy of the labelling system are simple and based on scientific criteria. It is compatible with the international Choices logo and it consists of a simple and understandable label. The criteria are evaluated by an independent scientific committee and the products are verified by an independent agency. The labels, which are voluntary, are provided with consistent communication and are available to all companies regardless of resources.

## Plans for the future

Mexico has experienced an unprecedented rise in obesity prevalence due to rapid changes in food environment. A cooperation between Government, industry, NGOs and academia is necessary to fight for norms, labelling (such as the Choices programme), regulation and taxes which could be very helpful in combating obesity in the short term, along with reducing the negative health effects and economic costs. In the long term, further education and other programs could complement and contribute to control obesity. Furthermore NGOs and research institutions should collaborate with the Ministry of Health and industry in the development and support of regulation of unhealthy foods.



## Meetu Kapur 'The Agrofood Industry's response to shifts in demand'

Meetu Kapur is currently Executive Director of CII Food and Agriculture Centre of Excellence (FACE) and has 15 years of previous experience in the agriculture and financial service sector. She leads CII's Food and Agriculture Vertical, driving policy and reform and working with stakeholders from government, industry, civil society and NGO's. She has been key in building strategic public private partnerships, contributing towards innovative market-based solutions in agricultural productivity. Ms Kapur graduated from the Massachusetts Institute of Technology Sloan Fellows Program in Innovation and Global leadership and completed coursework in Corporate Finance and Advanced Microeconomics from London School of Economics.

### India's young middle class

An emerging, and predominantly young, middle class is shaping new consumption preferences in India, and is growing exponentially. Meetu Kapur, Executive Director of CII Food and Agriculture Centre of Excellence, adds "The population of India increased by 181 million the last decennia, which is more than the current population of Brazil."

This enormous growth makes India the second most populated country in the world. China takes the first place, and Brazil is currently at the fifth. To make a comparison, the population of India, at the moment at 1,210 million people, is almost equal to the combined population of USA, Indonesia, Brazil, Pakistan, Bangladesh and Japan put together (1,214 million). India is a relative young country with over 50% of the population under 25 years and 65% under the age of 35.

### Demand side

The middle class is starting to dominate Indian consumption. Expenditures have shifted towards high value foods over the last decade and with a middle class prognoses of 59% of the population in the year 2025 this will continue to grow. An example of this shift is the emerging organic food market in India, which has an estimated size of US\$ 80 million for organic fruits and vegetables and US\$ 20 million for organic dairy products. Currently, most of the demand is emanating from large cities, but the demand from smaller towns is sure to increase as time passes.

**“ Due to consumer demands for affordable, convenient, nutritious and healthy food, the industry is responding with changes in the product mix and healthier choices. ”**

### Supply side

India is a leading agricultural producer and has been self sufficient in meeting demand for cereals since the 1990s. Moreover, India is the third largest agriculture producer by value, and the growth of the agricultural sector is 1,5 times higher than the global average growth. However, this immense growth results in constraints on the available resources, and affects the sustainability of the agricultural system.

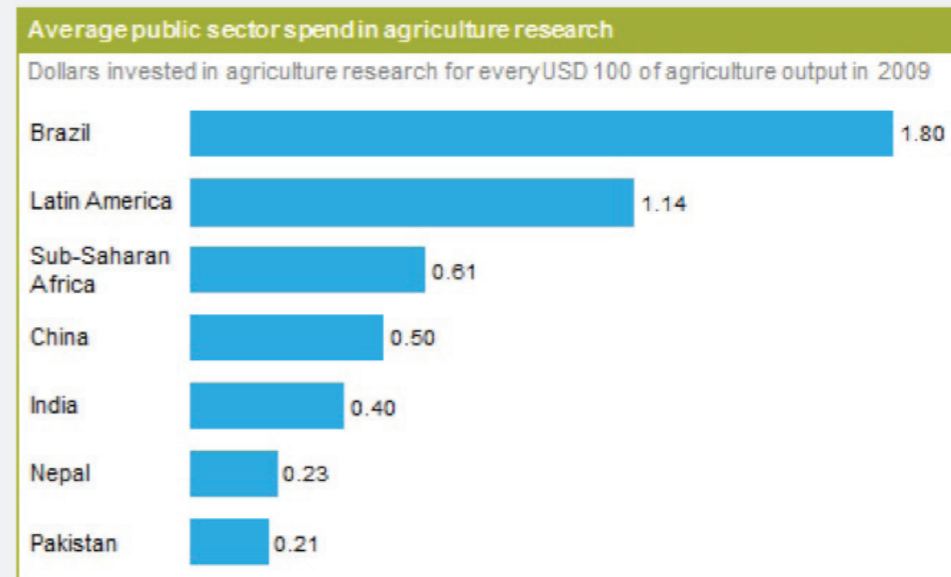
The Indian Government has in recent years been stimulating a resilient supply base. Interventions towards a more sustainable, diversified supply base include accessibility, where the Government plays a huge role in the food-grain management such as procurement, stocking and distribution. Other interventions are focused on higher productivity levels and sustainability.

Government regulation is necessary for protecting the consumer and shaping the industry. The Food Safety Standards Authority of India (FSSAI), a Government initiative, has been established under the Food Safety and Standards Act 2006 as a statutory body for laying down science based standards for articles of food and regulating manufacturing, processing, distribution, sale and import of food so as to ensure safe and wholesome food for human consumption. The FSSAI is currently also developing regulations to deal with misleading information on food packaging and advertisements. However, risk of regulation can also hamper innovation due to product approvals, rigorous licensing requirements across the entire supply chain and restriction on product pack sizes, so a balance needs to be found.

Currently, the largest part of the food processing industry in India is unorganized, posing challenges to scale and quality. However, due to consumer demands for affordable, convenient, nutritious and healthy food, the industry is responding with changes in the product mix and healthier choices.

For India, the key to a sustainable food system lies in four categories: catalysing investments for sustainable growth, improving infrastructure, strengthening partnerships and stimulating (agricultural) research.

### India spends little on agricultural research



SOURCE: IFPRI; McKinsey analysis

# Block **2** Working Group Session

## Harnessing the power of the middle class; the role of push and pull factors

How can middle class consumers drive food chains to more sustainable and healthier options? And how can innovation in the food chain drive middle class food consumption to more sustainable and healthier options? This second working group session was focused on harnessing the power of the middle class and the role of push and pull factors.

### Responsible food

Ultimately most consumers seem to want more sustainable and healthier food; but this 'responsible' food should not be perceived as more expensive or difficult to obtain. Since a large part of the population does not fully understand how the food chain works and how their decision for certain products affects prices, it is difficult to generate enough demand to lower prices significantly from a pull perspective alone.

Food related chronic diseases are no longer rich man's diseases, as obesity is now just as prevalent in the lower strata of society. Even when food insecurity is an issue, consumers still have access to high-caloric foods. Diabetes has a high prevalence in populations with a history plagued by famine and shortages.

Due to the long stretched value-chains, combined with urbanisation, people no longer feel connected to their food since they are not aware of its natural source. Food has become something from a factory, which appears to make consumers clueless in identifying which food is better, more healthy or more sustainable. Although this is less prevalent in India due to its less structured value-chains and lower rate of urbanisation, its current growth makes it probable that its population will adopt a similar mind-set.

This lack of transparency also means that producers are not stimulated to improve their processes in order to improve food quality, quantity or waste. A clearer understanding of the food-chain by the public, education on nutrition and more transparency should ensure producers are stimulated to work towards producing 'responsible' food.

In practice it often appears difficult to build supply chain cooperation, especially when there are no stable relationships. In addition, supply chain information is often difficult to obtain. Who has to pay and who will gain? Opportunities come from the demand side, while risks often are caused by the supply side.

Although it is the business sector that has to take ownership in stimulating this supply chain cooperation, the government has a role to play as well; for example by introducing baseline standards and implementing traceability.

### Communicate and educate

Consumers must be educated on the role and importance of agriculture in order for them to demand, or 'pull', more sustainable and healthier options. Although Government will always have an important role in education, we need industry to show initiative as well, using standardised and appropriate communication to inform consumers that products are more sustainable and healthier and what this means.

In combination with government education programmes, this creates consumer pull, allowing prices to remain at the same level due to ample demand. If we build consumer pull for more sustainable and healthier options, we will also have producer push at the same time in terms of availability; the challenge lies in educating and informing consumers and investing, at least at first, in 'pushing' the responsible alternatives onto the market.

However, before this can take place, industry leaders need to be educated as well. This is where Government, but also NGOs play an important role; NGOs educate bottom up, and although they are generally coloured, they tend to start the discussion and raise awareness quite effectively. This awareness is what is needed to convince industry leaders of the change that is required.

### How can these push and pull factors be brought together?

Nutrition, food safety, food security, and food waste management are related to technology on the producers' side, and communication towards and education of the consumer. The technological side can be directed by targeted government investments and subsidies, which should serve as a kick-start in improvement of the value-chain since increased quality and decreased waste will pay themselves back in the short/medium-term. The government also needs to play a role in basic regulation for food safety and compliance, and education programmes for consumers.

An opportunity for improved and coherent communication towards consumers would be through associations and cooperatives of industry. Although communication, and the 'pushing' of responsible alternatives is an investment that will ultimately show results in the long term, associations and cooperatives are a good instrument to spread the risk for individual companies.

### Block 2 Working Group Session Summary

- For a more sustainable and healthier way of feeding the middle class, we need to reconnect people with agriculture and the source of their food. For this, we need clear and transparent two-way communication through appropriate channels (TV, radio, magazines, but also a strong focus on online presence and the strength of social media) and education of the public. This will ultimately create awareness, involvement and 'pull' from the consumers' side.
- Government, supported by the scientific community, has a responsibility for creating appropriate programmes for education of the public.
- The agribusiness industry has the opportunity to form associations, in order to transfer knowledge, create clear and transparent marketing, and communicate in an honest way. This will ensure customer trust and brand loyalty.
- Agribusiness should also focus on embracing the responsible use of technology in order to further tackle problems related to food quality, quantity and waste.



# 3 Priority actions for a more responsible agrofood-chain



## Peter Bakker 'Food sustainability and health must be addressed simultaneously'

Peter Bakker, Chair of the World Business Council for Sustainable Development (WBCSD) Peter Bakker is a distinguished business leader who until June 2011 was the CEO of TNT NV the Netherlands based holding company of TNT Express and Royal TNT Post (formerly TPG Post, where he started in 1991). At end of May 2011 TNT NV was split in two separately listed companies: TNT Express NV and PostNL NV. He lead the demerger of TNT and stepped down after its completion per June 1, 2011. Under leadership of Mr. Bakker, TNT has become a leader in Corporate Responsibility with a ground-breaking partnership with the UN World Food Program, ambitious CO2 reduction targets from its Planet Me initiative and multiple year leading positions in the Dow Jones Sustainability Index.

Mr. Bakker has received the Clinton Global Citizen Award in 2009 and the SAM Sustainability Leadership Award in 2010, was the UN's WFP Ambassador Against Hunger in 2011, and is the Chairman of War Child Netherlands. Mr. Bakker holds a masters degree in Business Economics from the Erasmus University Rotterdam and a Bachelor Degree in Business Administration from the HTS Alkmaar.

As the president of the World Business Council for Sustainable Development (WBCSD), Peter Bakker contributed to the Future of Food seminar by means of a video message. The WBCSD is building on its Vision 2050, the new agenda for business – taking the transformational change advocated by Vision 2050 and focusing on actionable priorities, developing business solutions for 2020 that address the major global sustainability challenges where business can have the greatest impact. This new flagship project is called Action 2020.

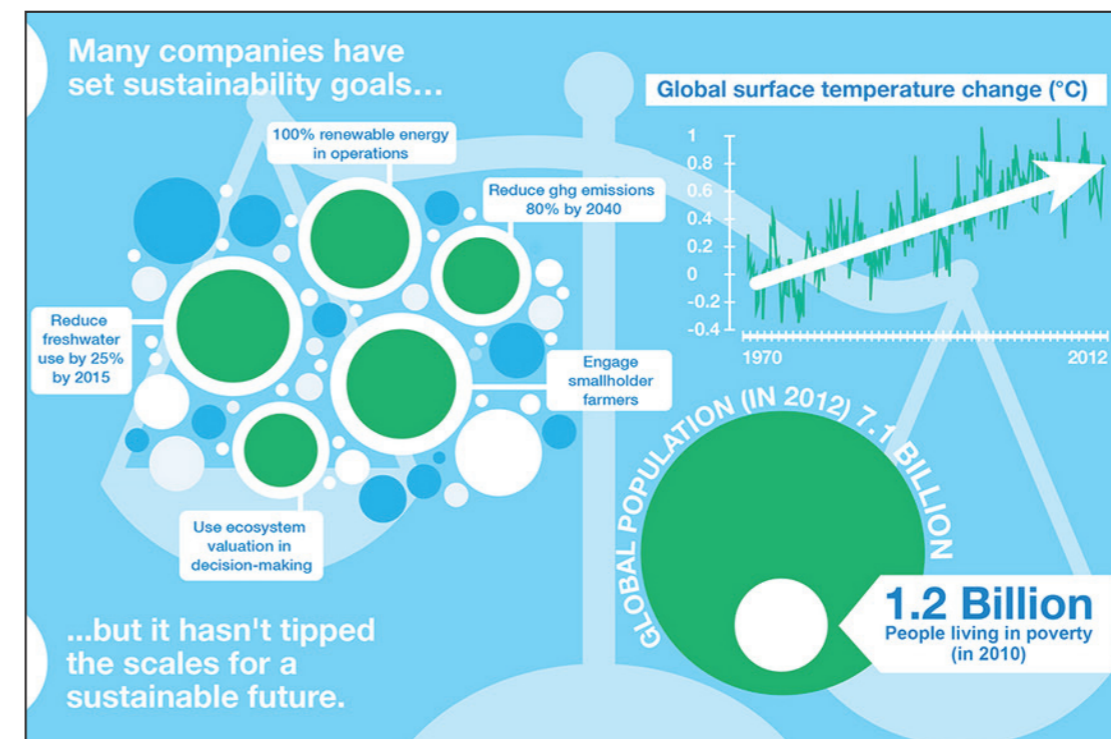
**“The environment is pushed to its limits, and there are too many short-term solutions, rather than systemic long-term ones.”**

Instead of significant progress with regards to the issues that are fundamental to the planet, the challenges have become greater. “We are stuck in a systemic crisis,” says Mr Bakker. The environment is pushed to its limits, and there are too many short-term solutions, rather than systemic long-term ones. Governments cannot, on their own, lead us out of this crisis – the business sector must take its responsibility to break the cycle. It must make leaps, not steps. Companies have to make a habit of scaling up solutions and thinking with a more long-term mindset in order to improve their current approach towards challenges. There are a lot of improvements to be made in sustainable production and sustainable consumption.

## Agribusiness Solutions

The demand for food, fuel and fibre will increase dramatically over the upcoming years, and the challenge of feeding the world by 2050 may need production increases of at least 60%. Recently the WBCSD has started scoping an Agribusiness Solutions programme, where value chain synergies are actively sought out. This programme should contribute to increased productivity but should also decrease food waste and improve food availability, accessibility and affordability. The Agribusiness Solutions programme will feed into the Action 2020 project; the food-water-energy nexus will be one of the project's priority areas. Nutrition is a social challenge that we must address as part of the agribusiness work. The rising middle classes in China, India, the Middle East and Brazil are demonstrating the risks posed by obesity and chronic diseases as affluence increases. Changing consumption behaviour in the middle classes also influences the environment. “Food sustainability and health are dual, inter-connected challenges for the global food and retail industry,” says Mr Bakker. “These challenges must be addressed simultaneously and systemically.”

The previous Future of Food seminar, in Lausanne 2011, resulted in five action proposals that were handed over to Peter Bakker. In response to these action points, Mr Bakker told the conference that, in partnership with the World Resources Institute, WBCSD has started preparations for a protocol on food loss and waste. This protocol could help companies assess and avoid food loss in their supply chains. Furthermore, WBCSD has launched a Rural Livelihoods Initiative that aims to improve wellbeing in rural areas. This initiative targets three main challenges: sustainable access to natural resources, availability of human resources, and healthy working conditions throughout the supply chain. “We are committed to assisting agribusiness companies from developing and emerging economies to implement more responsible methods of production.” Brazil's recent economic growth is an example of why this must be done. This growth must reflect true prosperity rather than fast profits and take care of natural resources and available land, as well as prevent further deforestation. The Brazilian chapter of WBCSD, CEBDS, has been guiding increasing awareness and action around the many environmental challenges that Brazil faces.





## Marina Grossi 'How CEBDS can assist in making the most of Brazil's agricultural opportunities'

Marina Grossi, economist, is the executive president of the Brazilian Business Council for Sustainable Development (CEBDS) since 2010 where she started in 2005 as Executive Director and Coordinator of the Thematic Chambers of Energy and Climate Change, Sustainable Construction and Sustainable finance.

Mrs Grossi has acted as a negotiator of Brazil at the Conference of the Parties to the United Nations (UN) Framework Convention on Climate Change (COP Climate), between 1997 and 2001 and headed the Promotional area on the Ministry of Science and Technology.

In 2003 as a coordinator of the Brazilian Forum of Climate Change, she founded and chaired the Sustainability consulting firm in Brazil Fabrica Ethica (FEB), providing advice to governments and businesses. Among other initiatives, she launched the "Carbon Disclosure Project" and focused its operations on Sustainability with the companies.

Previous research has shown that consumers are more aware of sustainability in growing countries than in the US or Germany. "So how," Marina Grossi, executive president of the Brazilian Business Council for Sustainable Development (CEBDS) asks, "do we make sure the increasing demand for food is met in a sustainable way, so that upcoming generations can also make use of the resources of today, and what is the role for industry?"

### Brazil's challenges

Brazil is a key player in global agricultural trade, which accounts for 35% of the GDP derived from export. The agribusiness sector is responsible for 26% of the country's total GDP. Brazil faces a number of challenges in trying to accomplish a more sustainable agricultural sector. The agricultural sector consumes 73% of the nation's drinking water, and an estimated 60% of the amount of water supplied to the sector is wasted. A staggering 32% of produce is lost along the supply chain, and the sector is responsible for 19% of the emission of greenhouse gasses of the entire country.

**“ The value of water needs to become part of the price, so that it is seen at its true value. ”**

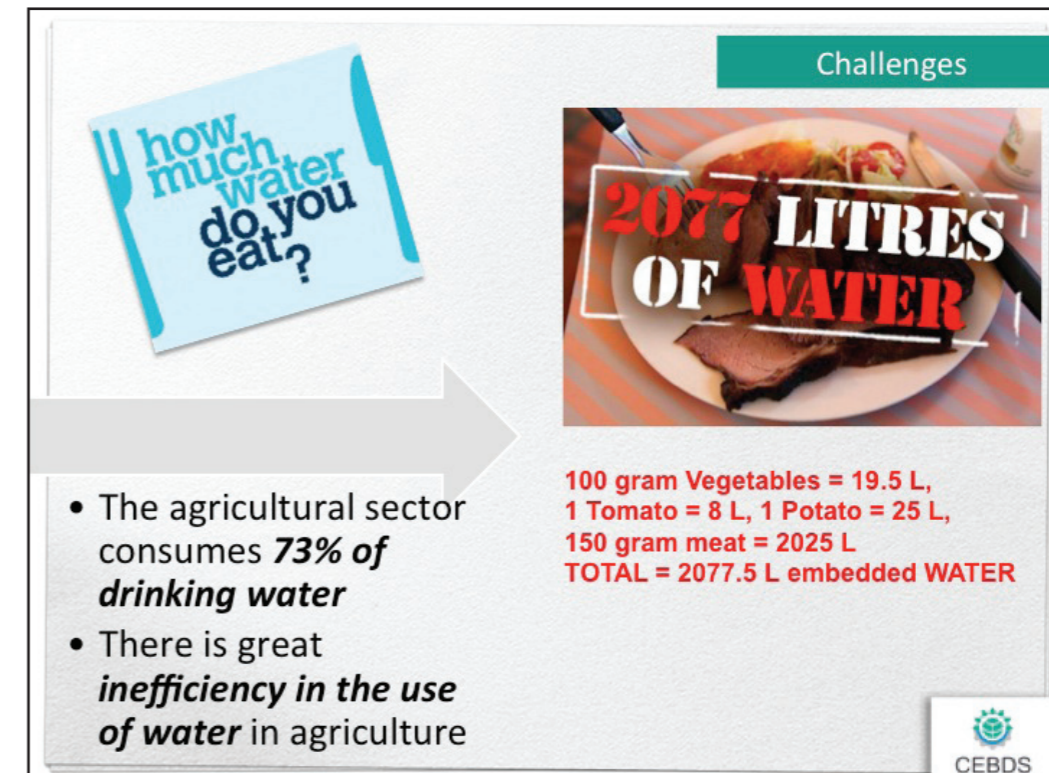
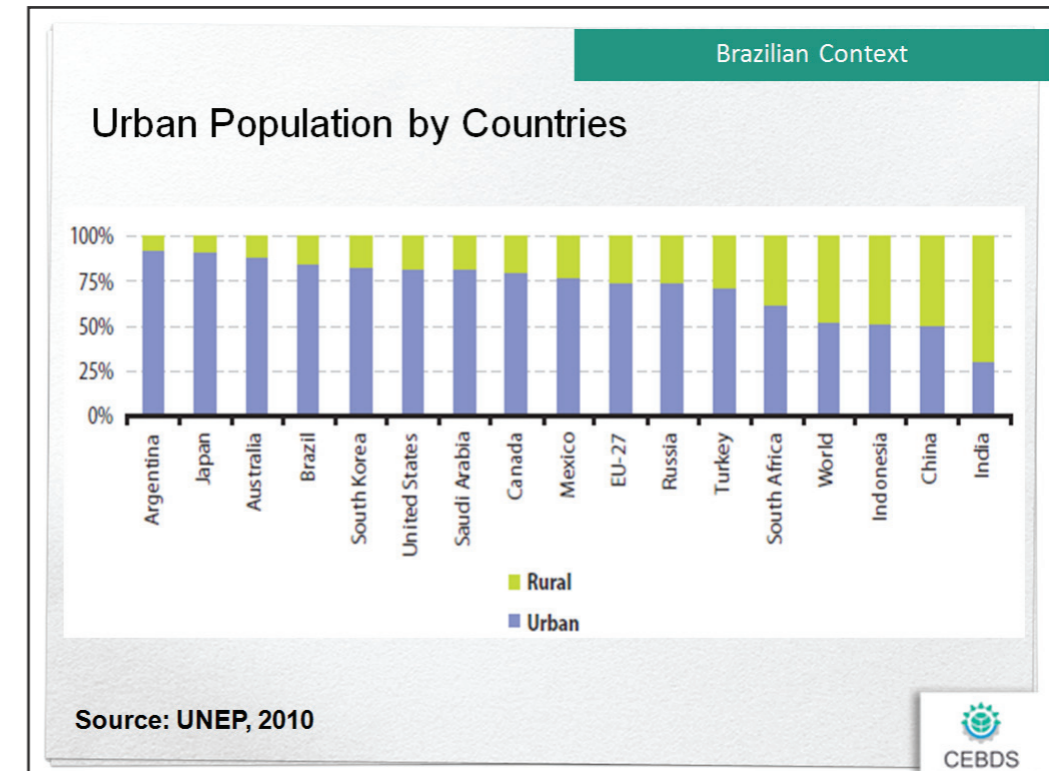
### Seizing Brazil's opportunities

The Vision 2050 Brazil is guiding CEBDS in seizing a number of opportunities in Brazilian agriculture. It needs to be stressed that, from an economical perspective, the value of water needs to become part of the price, so that it is seen at its true value. In combination with improving agricultural practices, this should contribute to Brazil becoming the world's 4th largest economy, while providing good and sustainable living conditions for its 260 million inhabitants, by 2050. The role of science still needs to develop, but by focusing on enhancing innovation in the agricultural sector, biotechnology also plays an important role in reaching the Vision 2050.

### The role for industry and CEBDS

By aligning its activities against the objectives of Vision Brazil 2050, CEBDS will contribute to making the most of Brazil's opportunities. For instance, through the Agriculture Working Group, different aspects such as small farmer development, crop-livestock-forest integration and financing/development funds can be researched and discussed. Other activities include training rural entrepreneurs, creating a regulatory framework to promote a green economy and enhance its value, encouraging family, micro and small sustainable agricultural enterprises and improve certification and qualification of activities and products. A number of policies and practices to this end are now a point of discussion in the government, and they are being included at an incremental pace into the agenda.

Grossi concludes by describing the agricultural sector: "so few work for so many. 2020 will serve as a benchmark for the whole world, and companies are the ones who have to answer to the challenges."





## Peter-Erik Ywema 'Memories are short-lived, but sustainability deserves a long-term vision'

Peter-Erik Ywema has been general manager of the SAI Platform, the global collaborative enterprise by and for food & drink companies on sustainable agriculture, since 2007. Under his lead, the Platform has grown from 17 to 50 members and includes some of the world's biggest companies, developing and publishing a unique collective knowledge about solutions and tools for companies in the food chain. Ywema has been active in companies, intermediate organizations, governments and NGO. He is an analytical chemist by education, but also holds an MBA in strategic sustainability consultancy and enjoys drawing inspiration from many forms of fine art.

### What if...

"What if we were able to keep farmers on the farm instead of urbanising, or streamline a message from retailers to farmers?" Peter-Erik Ywema, general manager of the Sustainable Agriculture Initiative (SAI) Platform, advocates for the development of a long-term vision, instead of living on short-lived memories.

### Harmonisation and transparency in certification

There are over 500 labels of certification in Europe alone, and the risk of losing sight of which label stands for which qualities increases with each new label. What is needed is an open source protocol for certification, like the Bluetooth-standard for electronic devices; not an end-all solution, but a tool for transparent and standardised communication on sustainable agriculture.

### SAI Platform

The SAI Platform aims to create such transparency through an open source guide, with a focus on sustainable agriculture. "Sustainability is still a relatively new concept, but it should be given long-term attention." With its member list including multinationals like the Coca-Cola Company and Unilever, but also smaller companies, the Platform has categorized its practices into six different Working Groups. By focusing strongly on the primary production part of the supply chain, precise principles and practices have been developed, extended and tested. Instead of defining separate codes and standards per supplier, the guide aims to implement the scope and content of principle and practices through a simple online checklist. Farmers are able to self-assess their activities according to this checklist, which is in line with several other standards. This way, the checklist serves as an internal benchmark for certificates.

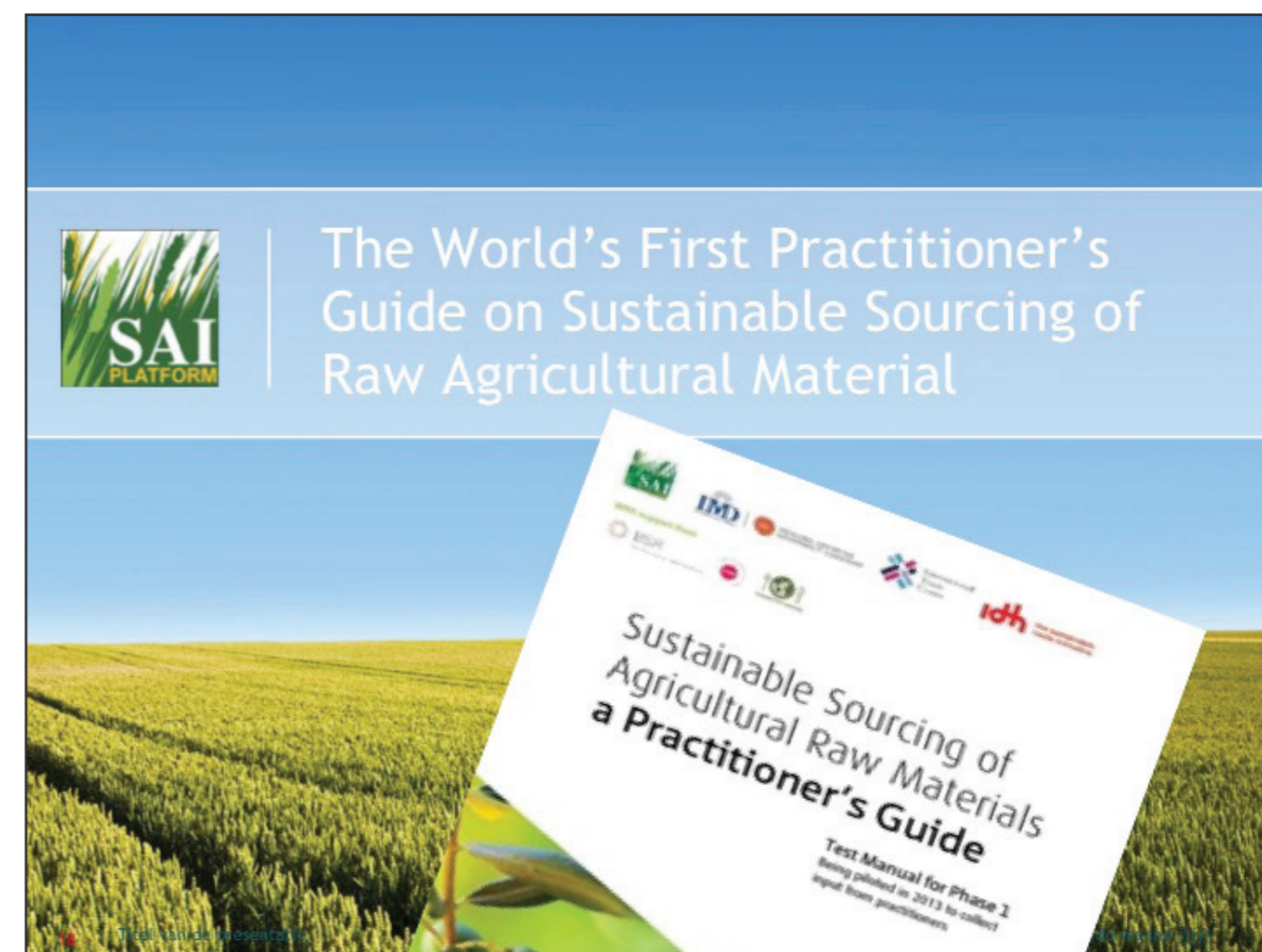
Parallel to this checklist SAI Platform has developed a guideline to measure impacts on farm level (Sustainability Performance Assessment, SPA). Most standards lack quantitative assessment and thus cannot track improvement. SPA aims to standardize impact measurement and so facilitate mutual comparing and learning amongst farmers and in value chains.

The SAI Platform has also developed a comprehensive Practitioner's Guide which helps agricultural practitioners move towards sustainable sourcing and implement related strategies. The guide can be used in a linear or circular way, and the strategies are structured in such a way that they can be custom applied to each company and based on cases and proven tactics. The overall aim of the guide is to create a common language among certification standards.

### Lessons to be learned

Brazil has the opportunity to learn from the mistakes that were made by Europe and North America. A wise lesson with regards to Europe would be to "Follow him. He is not dead, but he has already felt the pain!" Brazil, and the other BIC countries should work towards precompetitive collaboration so that challenges can be tackled with joint efforts. Reconnect the value chain.

“ Sustainability is still a relatively new concept, but it should be given long-term attention. ”





## Andree Georg Girg 'How can Bayer help to close the gap between what is needed, and what is available in agriculture?'

Andree George Girg has been Regional Marketing Director of Latin America for Bayer Crop Science From 2009 until 2013. With almost 15 years of experience with Bayer, Mr Girg has an extensive career in the field of agriculture and food. He founded Virtus Marketing GmbH and was previously also Marketing Director for Central Europe of DuPont de Nemours. As a German native, Mr Girg has experience in both research as well as consultancy. He attained an engineering degree in Economics and Agriculture from the August University of Goettingen and has extensive international experience in Africa, South America, North America and Europe.

With only limited arable land available, crop production rates must double by 2050 in order to meet the demands from rising populations, shifts in diet and increasing biofuel consumption. "What is needed does not match what is expected", says Andree Georg Girg, Global Manager Oilseeds at Bayer Crop Science. The change in food consumption is part of a set of trends that the agricultural sector is currently experiencing. The prominence of the small holder farmer has recently become clearer, as well as the importance of partnerships all along the supply chain.

### The role of technology for more sustainable crop growth

Through a short videoclip, Mr Girg gave an example of how innovation is pushing the industry forward faster and faster. He stressed that innovation in technology is number one of a five-point plant to "precision farming." The inclusion of small and big farmers, enhancing human health, raising productivity and the creation of far reaching partnerships will aid further in unifying stakeholders in order to achieve a more sustainable way of growing crops. The latter will increase transparency in the supply chain, according to Girg.

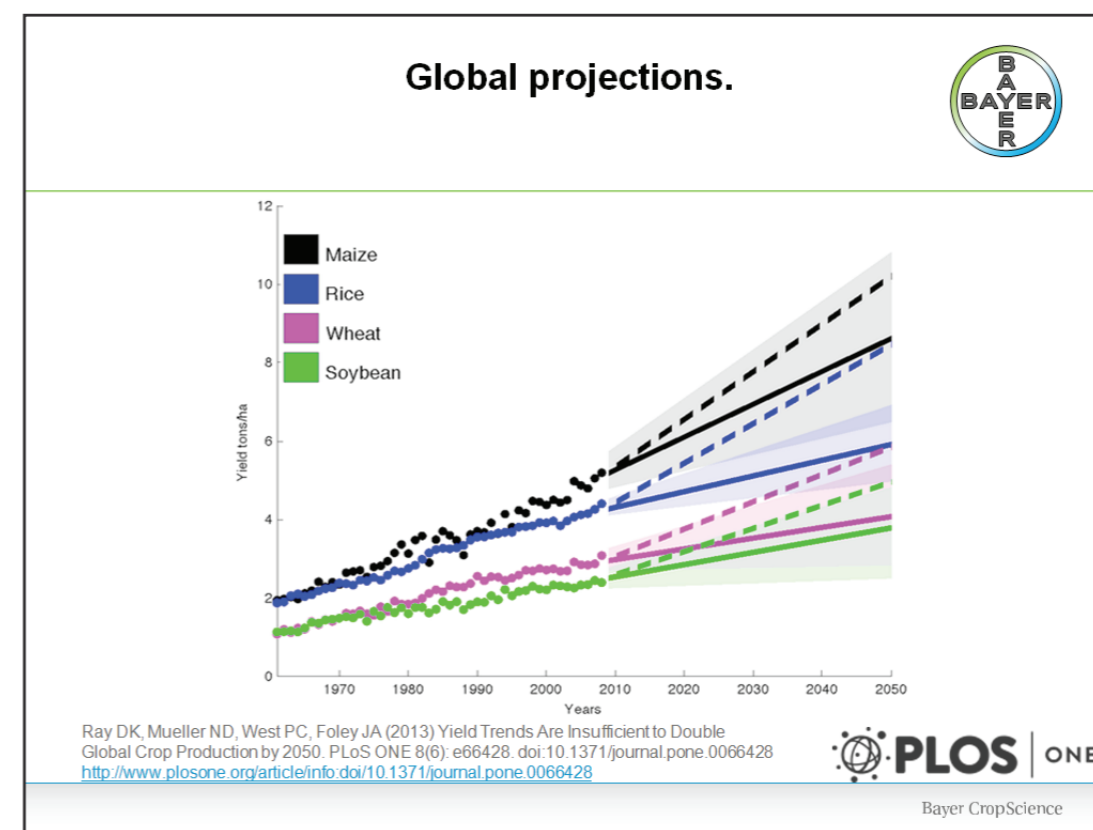
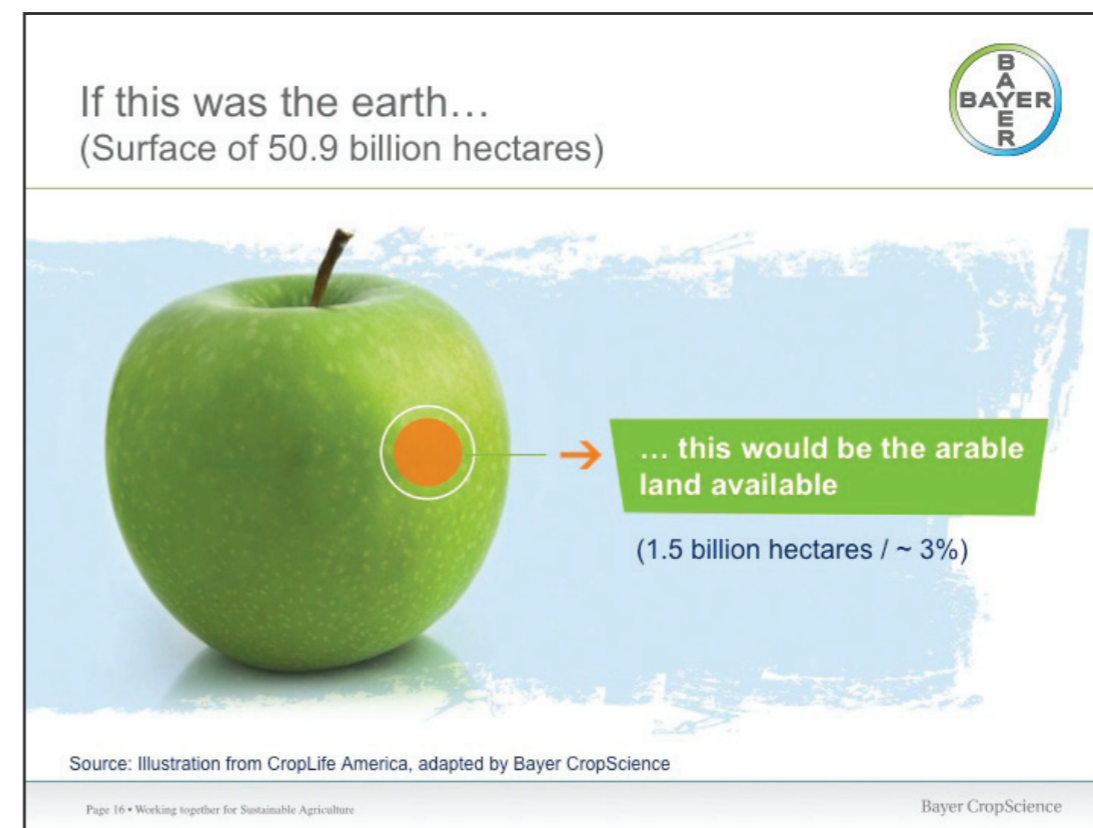
### Bayer Crop Science: farmer-focused technology

Mr. Girg introduced a number of biotechnologies aimed at intensifying sustainable agriculture. One such technology, crop protection, can save half of a current harvest from going lost, and using it to its full potential may potentially double production yield. Other technologies, including nitrogen fixation, genetic switching, optimized phloem transport and general fungi resistance are making their way through from research and development to commercialisation.

### Focus on partnership

Bayer Crop Science works on the manufacturing, research, development and processing of innovative agricultural solutions in more than 120 countries worldwide. By focusing its efforts on proactively engaging in partnerships with other stakeholders in the supply chain, Bayer Crop Science tries to stimulate the demand for sustainable crop solutions. Different players along the supply chain like the producer, processor, import/exporter, retailer and consumer, are included in the partnership, to give rise to higher yield of traceable, safe and high-quality food.

Keeping the focus on farmers, Bayer Crop Science assists farmers through partnerships by offering certification support, crop expertise, safe use training, resistance and residue management, post harvest know how and assistance in many other competencies. Through the development of a network at all points throughout the supply chain, Bayer Crop Science provides sustainable crop solutions to farmers.



# Block **3** Working Group Session

## Priority actions for a more responsible agrofood-chain

This third and concluding Working Group Session was focused on taking all the conclusions and learnings from the previous Working Groups and speakers, and come to several priority actions that are required in order to achieve a more responsible agrofood-chain, so that the growing middle class can feed itself in a more sustainable and healthier way.

### Transparency

Although there are many similarities between Brazil, China, India, and even the EU and North America, the private sector in all countries has a tendency to differentiate. In order to avoid losing impact by a fragmented approach, we need open, two-way communication for all stakeholders in the value chain.

“Increasing transparency will eventually expose the bad and the good. The bad contributors will have the choice either to abandon or join. Increased transparency also makes the consumer part of the process, as they gain more insight into their foods’ origins,” notes one of the participants, “and their demands will become more outspoken whilst rising expectations will force improvement of food quality.” One excellent Brazilian example is the legal requirement for eating facilities (restaurants, cafés, etc.) to allow customers to visit the kitchen and check the restaurant’s quality, which is now actually being used as a marketing tool. “It is a symbol of security, and its lack conversely indicates insecurity!” This small example of transparency has opened a door to consumers and will likely not close again because it has led to the development of trust and better relationships.

However, transparency is not a solution for a more responsible food-chain on its own, since the standards for what is ‘good’ and ‘bad’ still differ. Therefore, a baseline of standards needs to be developed, using appropriate standards that take into account the nature of the producer (e.g. industry vs. smallholders).

Taking transparency to a higher level, all three countries need openness of markets, open trade and trade agreements. Even though agriculture should always be protected, especially essential crops, this needs to be limited to the bare essential. Currently, a long term vision regarding government involvement in agriculture is missing for all countries; a government should protect its agricultural sector to help level the playing field on a national and an international level.

### Communication and education

Government will always have a responsibility to educate and to assist consumers and companies to make the responsible choice. The importance of agriculture is something that consumers should be educated on. The industry needs to do its share by openly communicating about the source of food and providing insight into how the agrofood-chain works.

However, elaborate labels might not be useful, since for example “around three-quarters of the new Brazilian middle class is mathematically illiterate”, something that is expected to be true for all three countries. Therefore, there is a clear need for easy, standardised communication, for which government, in cooperation with academia, should provide a baseline regulatory framework.

### Sharing information

In order for any change in the agrofood-sector to be achieved, there needs to be not only communication between the different stakeholders in the agrofood-chain; information needs to be shared in order to reduce waste and come to best practices that will benefit everyone.

“A suitable tool would be a forum on this subject,” suggested one participant, “to create critical mass that takes this topic to the next level.” An independent forum, which gives visibility, publicity, allows sharing of ideas and best-practices, and be the start of changes in the sector. For this, a pre-competitive movement of farmers and producers needs to be created, in an open space system to share knowledge and experiences to reduce food and water waste. All stakeholders —and especially the farmers— have to see the benefits of such programs and ideas.

However, the private sector cannot handle and take this problem on its own; there has to be collaboration between all the different stakeholders. These stakeholders need to have a deeper discussion; on the topics of food, nutrition and environment, looking towards the future and keeping a common interest and ownership of actions in mind.

### Smallholders and technology

Often ignored in higher-level discussions, the small-holder farmers need to be made part of the solution, and included in the process through associations and cooperatives. This silent agricultural force, if successfully connected, could play a major role in changing the way the agrofood-sector does business. The role of technology in this process should not be underestimated, provided that it is accessible and applicable also to smallholders. This is the case for e.g. biotechnology, but also for communication technology. In India alone, 400 million farmers were connected to the mobile network in one year. As one participant summarised, “Inequity is the greatest real cost today; we must include the excluded!”

Agricultural technology is being embraced, albeit in varying degrees, as it is indispensable to battle a whole range of topical issues: food/water waste, resource depletion, environmental degradation, food quality/quantity, etc. However, more research is required if we wish to tackle these problems in the future as well, since they will continue to grow if left unattended.

Telecommunications and IT will be indispensable for connecting the stakeholders in the agrofood value-chain, creating transparency, communicating with consumers, and sharing best practices in a non-competitive way.





# Seminar Conclusion



## Alex Atala 'Cooking is the main link between nature and culture.'

Alex Atala, with his restaurant D.O.M. is ranked 6th in The World's 50 Best Restaurants 2013 and he himself was voted one of Time Magazine's 100 Most Influential People of 2013. Alex opened D.O.M restaurant in Sao Paulo in 1999, incorporating the flavours, colours, textures and smells of Brazilian food. Atala's use of traditional Brazilian ingredients led to a partnership with MIE Brazil, a developer of food brands focused on sensible consumption, and together with a local rice farmer developed new varieties of rice. He has since opened a second restaurant, Dalve e Dito. Recently he founded the ATÁ Institute, which aims to search and take care of natural and local food produce in Brazil.

In September 2013 Alex Atala will launch his book (in English) about D.O.M. and the Brazilian ingredients: D.O.M. Rediscovering Brazilian Ingredients with Alex Atala

"Everything we perceive, from culture to food, is based on the way we are conditioned. For example, the smell of my sons' socks after a football match is the same as the smell of the great cheese I have in my restaurant. Human beings are intelligent, but we are also conditioned! We do way too many things on auto-pilot." With this important point, Alex Atala, #1 Chef of Latin America, owner of the #6 best restaurant in the world, D.O.M., founder of the ATÁ Institute and the only chef on the list of TIME magazine's 100 most influential people, started his closing speech of the fourth Future of Food seminar.

During his training as a chef, he realized that he needed to better understand his relationship with what he was doing: with the pan, the ingredients, and his surroundings. But understanding the ingredients did not start in the kitchen, it concerned also the road that the ingredient had travelled before coming into his kitchen. It required understanding of nature, and one component of nature that is often overlooked: the human being. As Alex concisely put it; "cooking is the main link between nature and culture".

This is where he decided to do things differently than other chefs, realising that "it's impossible to make something completely new, but it's possible to make something unexpected. This was the first way for me to escape the trap."

Since he was always fascinated by the Amazon, he decided to buy a piece of land in it Amazon. Due to his respect for the indigenous peoples, and because wanted to give back, he started providing the local families with food-baskets. When he came back to his land some time later, he noted that it was littered with trash from the food he provided. Upon confronting the tribe-leaders on this, they simply replied: "This is your fault, not ours. We normally eat fish, which is wrapped in scales, and fruits, which is wrapped in peels. We can throw this away, no problem. So we do the same with what this food is wrapped in."

This experience drove Alex to try a different approach. He decided that there needed to be a better understanding also of the human part of the chain. So he decided to found an institute to improve the whole chain and look at producing ingredients that are good for the person who eats, the person who produces, and the surrounding environment.

Thus was born the idea of ATÁ. An institute and think-tank of very driven and impassioned people that want to review the relation between man and food. Understanding that there is a culture behind a taste, and strengthening that culture, may be the primary task of this work. ATÁ focuses on responsible and local sourcing, such as with the Baniwa chilli Jiquitaia, sustainable Brazilian beef, Cerrado vanilla, and honey of native bees. On its horizon are also concerns regarding depletion of the seas, undiscovered indigenous ingredients, consumption of game, and ultimately; improving the food-chain's structure and the rational, scientific usage of our natural resources in order to come to better eating, better living, and a better future of food.



# Action points

The dialogue sessions have been intensive and fruitful. It was exciting to conclude that in the BIC countries, although all emerging economies, differences prevail in the area of food. These differences can be seen in agricultural production, the composition and demands of the middle class and the role played by the Government. Nevertheless, what came out as general features for all three countries are the strong demand for cooperation in the food chain and development of appropriate technology. Additionally, communication within the food chain and with consumers is a key issue to make progress in health and sustainability.

In the final seminar session the results of the three dialogue rounds were brought together into four action points. To underline the necessity to implement these action proposals, they were handed over to Alex Atala. He is not only one of the most renowned Chefs in the world and founder of the ATÁ Institute, but first and foremost a representative for thousands of professionals who are working towards a healthier and more sustainable food supply on a daily basis, be it in Brazil or anywhere in the world. In the end, the action points are intended for all of them.

**Players in the food chain have to be connected in an integrative food chain information system, to stimulate responsible behaviour and to gain transparency for consumers.**

There was a strong plea for better cooperation and transparency throughout supply chains, in order to stimulate producers to act responsibly (focus on food quality, quantity and reduction of waste). In addition, transparency would allow producers to gain the trust of consumers. This transparency and trust are the basis of any communication and education of the public.

**Technology should help producers towards sustainability, better food quality (nutrition, food safety), better food quantity (food security and obesity prevention) and less food / water waste. Communication and education should support the consumer to reach these goals on food quality, food quantity and waste.**

The speakers from India, China and Brazil gave a consistent prediction of the future; we need to feed an increasing population with decreasing natural resources. Most of the participants agreed that agricultural technology will be an indispensable tool for overcoming this discrepancy. Additionally, responsible use of technology can also help tackle the issues related to food waste, water waste and

environmental degradation (pollution and climate change). The importance of easy understandable consumer information was highlighted in many discussions and talks during the seminar. The underlying reason is the trend that is seen in all developed and developing countries; consumers are less and less connected to the food chain and therefore less able to make healthy and sustainable choices. Education programmes and honest communication by producers on nutrition and the environmental impact of products will allow consumers to make informed and responsible choices.

**Smallholder farmers and big business should seek cooperation, based on appropriate technology.**

Smallholder farmers are more and more recognised as an indispensable power to contribute to the overall aim of agriculture: to feed the world healthy and sustainably now and in the future. Therefore, they need to be made part of the solution, and included in the global food system through associations and cooperatives. Development of agrofood technology should also be oriented to their needs and possibilities, not only to large scale production.

This silent agricultural force, if successfully connected, could play a major role in changing the way the agrofood-sector does business. Since the power of this large and often fragmented group can only be harnessed once they are connected, we need to recognise the importance of (information)technology.

**Create a pre-competitive movement of farmers in an open space system to share knowledge and experiences to reduce food and water waste; social media can be a powerful tool.**

In order for any change in the agrofood-sector to be achieved, there needs to be a platform for communication between the different stakeholders and sharing of information and best-practices. In order to be independent and reach critical mass, the platform needs to be in an open space system and pre-competitive, and all stakeholders — especially the smallholder farmers— have to see the benefits of such a platform.

The private sector cannot handle and take this problem on its own; there has to be collaboration between all the different stakeholders. These stakeholders need to have a deeper discussion; on the issues of food, nutrition and environment, looking towards the future and keeping a common interest and ownership of actions in mind.



(The Future of Food 4 team, with Alex Atala, after handing over the seminar's action proposals. From left to right: Paula Dencher, Guus ter Haar, Edwin Hecker, Ruben Hecker, Alex Atala, Rutger Schilpzand.)



## Site visit: Sakata Sweet Grape Tomato farm and NK packing house

This site visit was arranged by Thomas Eckschmidt from PariPassu, a Brazilian based company that provides solutions that allow the food chain to improve controls, discipline, and results through easy-to-use and cost-effective traceability and quality control software and training solutions.

Just outside of São Paulo, John Takahashi works on his farm. He uses the farmland, which he rents from his father, to produce Sakata-brand 'Sweet Grape' tomatoes.

In order to improve the tomato's quality (which determines the price that is received), the tomatoes are grown in greenhouses using a number of different best-practices. The tomatoes are given water enriched with nutrients through two tubes that enter the soil at different points – the use of two watering tubes allows for more uniform root-growth is already an improvement from previous structure that fed the plant with one tube. The addition of nutrients to the water makes the tomato plants more resistant to outside influences such as pests, and has led to a reduction in the use of pesticides. The nutrient concentration and blend varies according to temperature and humidity to assure optimum health for the plants. Keeping the tomato plants in contained greenhouses, effectively creating a controlled environment, further decreases the risk of disease and pests. The pots in which the plants grow are raised, allowing any excess water to flow down the plastic covered, slanted floor, in order to be collected and recycled.

Mr. Takahashi is very self sufficient, as a result of the lack of trust in cooperatives with other farmers and agreements with suppliers. However, becoming part of the NK group and using services provided by PariPassu, promotes transparency and integration, which also improves trust; this in turn yields to best practices, ultimately leading to higher productivity. The farm and its products are audited annually, creating a network for sources of food which are of high quality.

**Outside view of the greenhouse (top left), where the sweet-grape tomatoes grow in a controlled environment (bottom left). Ultimately, they are selected, assorted and packaged in specific packaging (top right) and can be traced throughout the chain using QR-codes (bottom right).**



After being transported to the NK packinghouse, which receives Sweet Grape tomatoes from different associated farmers in the region, the tomatoes are first labelled to record their origin. The sugar level is tested in random samples from each single-origin batch. The tomatoes are then scored and sorted based on their size and sweetness. Each variety receives its own packaging, with a unique label containing a QR-code so that the customer can see exactly where their product originated from. Smaller size and sweeter tomatoes receive special packaging to promote tomato consumption amongst children.

The use of a QR-code/label on the final packing box can be used at other points in the supply chain to receive more information on previous steps in the supply chain process, improving transparency and quality control. Quality control starting at the farmer means that the chain has a very low percentage of rejected products, and high efficiency across the entire chain.

For more information, please contact Thomas Eckschmidt at [thomas@paripassu.com.br](mailto:thomas@paripassu.com.br).



## Site visit: Pão de Açúcar's Greenstore

With sales above US\$50 billion a year and 63 years of history in Brazil, Grupo Pão de Açúcar (GPA) is one of the leading food retailers in Brazil. Founded in 1948, the company employs 160.000 people in 19 Brazilian states and the Federal District. GPA is the largest distribution company in South America with more than 1600 stores under its different brands.

The multiple store-formats, with an equal share of supermarket and hypermarket models, is a significant competitive advantage for the Group, since their sales and operational strategies can be tailored to different consumer profiles and regions through these formats. Changes in the Brazilian social pyramid increased conscious consumption, which moved the company to focus on reducing waste and encouraging healthier eating habits. GPA is of the opinion that sustainability should go beyond environmental preservation, by including social inclusion and social wealth generation.

To this end, GPA developed a sustainability committee with three essential guidelines. The first guideline is Corporate and Employees, focusing on business, relationships, decisions and attitudes. The second, Customers, focuses on stimulating and educating consumers, making them more conscious. The third guideline is Value Chains, which focuses on incentivising the People, Planet and Profit model. An example of a sustainable project is the quality processes that begin in the field. Through implementation of transparency, best agricultural practices, rigid control of pesticide use and the products' physical conditions, consumers can expect quality from the origin, whilst the chain benefits from higher efficiency.

### Greenstore

The Greenstore initiative gives an example how to be more sustainable and responsible as a retailer with one of the GPA brands: Pão de Açúcar. The Pão de Açúcar Greenstore is made up of several environmental and social initiatives under one roof: LEED-certified sustainable building methods and materials; significant reduction in water and power consumption, saving 38% and 27% respectively, compared to a traditional store; offering the largest assortment of organic, unprocessed and healthier foods of any Brazilian supermarket-chain, and; incentives for recycling and conscious consumption and training of employees in sustainable practices, resulting in only 7% of the organic garbage being sent to landfills.

Furthermore, GPA, in cooperation with Unilever, started the largest private recycling program in Brazil with the Pão de Açúcar's brand, whether they are greenstores or not. Through the use of 126 recycling stations, the initiative has a strong focus on job and income generation for the lower-income class.

The GPA spokesperson concluded the Pão de Açúcar Greenstore site visit by emphasising "We need to inspire more and more people to embrace sustainable values, and then to put those values into practice with sustainable behavior, because, as Hugo Bethlem mentioned before, laws and regulations tell you what you can do, but values tell you what you should do."

**The Pão de Açúcar greenstores offer many different kinds of fresh and organic produce (top). They also have a strong focus on recycling and separating waste (middle), which starts with the customer, as they are encouraged to discard excess plastic packaging at the moment of purchase (bottom).**





## Site visit: Cidades sem Fome

São Paulo city and its metropolitan region are home to 19.3+ million inhabitants, making it the world's third largest urban population. The city's East Side (housing 3.3+ million people) stands out as a grim sprawl of poverty and violence, due to poor housing and the non-existence of job-generating projects. Combined with low economic activity and inadequate infrastructure, these conditions keep it segregated from the rest of the metropolis.

The population of these communities, usually migrants from Brazil's poorer North-Eastern states, try to make a living through temporary jobs requiring low or no skills. Yet most of the area's workforce is unemployed and, often, the distribution of food baskets by the city is the only source of nourishment for many families.

The São Paulo based NGO Cidades sem Fome (CSF, or Cities Without Hunger in English) aims to tackle this problem through their Community Gardens Project. The Project's objective is to build community gardens on barren land, initiating local 'farming nuclei' which generate urban job opportunities and provides skill-building for the local participants and their dependents. The participants own, and bear the responsibility for, the produce grown in the gardens, which they can use to feed themselves as well as sell to the local population. The gardens thus create systematic income generation from selling the produce and value added processed goods, availability of fresh produce leading to enrichment of the local population's diet, and, foremost, the social integration of the communities with their environment.

Hans Dieter Temp, founding father of the CSF initiative, showed the participants around in the project's São Mateus community garden, where they were met with open arms (and the women with flowers) by Jenneval, one of the garden's beneficiaries. Participants were inspired by the practical application, but also the ideology of the CSF Community Garden Project.

For more information, please contact Hans Dieter Temp at [cidadessemfome@uol.com.br](mailto:cidadessemfome@uol.com.br).

**The Cidades sem Fome community gardens are located on derelict land, owned by, among others, electricity transport firms (top). As initiator Hans Dieter and urban farmer Jenneval (centre) explain, the residents benefit from fresh produce sold by the farmers at the gardens at highly competitive prices (bottom).**



# Programme

## 27 June

8:00 - 8:30 Registration  
8:30 - 9:00 Welcome by Hugo Bethlem

### Block 1

9:00 - 9:30 Setting the scene by Marcelo Drügg Vianna  
9:30 - 10:30 Session "The growing middle class, its power and regional differences": Prof. Dr. Funing Zhong, Dr. Ram Badan Singh  
10:30 - 11:00 Break  
11:00 - 13:00 Working group session 1  
13:00 - 14:00 Lunch

### Block 2

14:00 - 15:30 Session "Harnessing the power of the middle class": Roberto Rodrigues, Dr. Simon Barquera, Dr. Meetu Kapur  
15:30 - 16:00 Break  
16:00 - 17:30 Working group session 2  
17:30 - 18:00 Conclusions of the day  
19:00 Dinner

## 28 June

9:00 Departure from GS1  
10:00 - 12:00 Tour of Pão de Açúcar Green Store  
12:00 - 13:00 Lunch  
13:30 Return to GS1

### Block 3

14:00 - 15:45 Session "Regional solutions for global issues": Peter Bakker, Marina Grossi, Andree Georg Girm, Peter-Erik Ywema  
15:45 - 16:15 Break  
16:15 - 17:45 Working group session 3  
18:15 Speech by Alex Atala and handing over of conclusions to Alex Atala  
Evening free

## 29 June

8:00 Departure from GS1  
9:30 - 10:15 Tour of farm with Pari Passu  
10:15 Departure  
11:00 - 12:00 Tour of Sakata Sweet Grape Tomato Packing House with Pari Passu  
12:00 - 13:00 Lunch  
13:00 Departure to São Paulo  
14:30-15:30 Tour of Cities Without Hunger  
15:30 Departure to GS1/ São Paulo city centre

## Speakers

(in order of appearance)

Hugo Bethlem	Chairman
Marcelo Drügg Barreto Vianna	International Chamber of Commerce
Funing Zhong	Institute for Agricultural Economics
Ram Badan Singh	National Academy of Agricultural Sciences of India
Roberto Rodrigues	Getulio Vargas Foundation Agribusiness Center
Simon Barquera	Mexican School of Public Health
Meetu Kapur	CII Food and Agriculture Centre of Excellence
Peter Bakker	World Business Council for Sustainable Development
Marina Grossi	Brazilian Business Council for Sustainable Development
Peter-Erik Ywema	SAI platform
Andree Georg Girg	Bayer CropScience
Alex Atala	ATÁ Institute/DOM

## Facilitators

Edwin Hecker	Schuttelaar & Partners
Rutger Schilpzand	Schuttelaar & Partners
Guus ter Haar	Schuttelaar & Partners
Paula Dencher	Schuttelaar & Partners
Ruben Hecker	Schuttelaar & Partners

## Participants

Alex Bruijnis	Ministry of Economic Affairs of the Netherlands
Alex Gordon Lee	Fazenda Rio Bonito
André Chevis Svartman	Grupo Pão de Açúcar
André Skirmunt	Grupo JBS
Andrea Alvares	PepsiCo do Brasil Ltda
Antonio Relva	Quasi Pronti Restaurantes
Antonio Salvador	Grupo Pão de Açúcar
Cecilia Gurgel do Amaral	Grupo Pão de Açúcar
Christino Aureo Da Silva	State of Rio de Janeiro
Elis Regina Casco	Fazenda Rio Bonito
Eri Yoshiy	S2Publicom
Estuardo Jara	Bayer CropScience
Fernanda Gimenes	Brazilian Business Council for Sustainable Development
Flavia Ponte Bandeira S Costa	GS1 Brasil
Floor Boon	NRC Brazil
Giovana Bordon	Yoki Alimentos Ltda
Gisele Gurgel	TetraPak
Hans Dieter Temp	Cidades sem Fome
Laura Antonazzi	ICONE
Leonardo Miyao	Grupo Pão de Açúcar
Márcio Nappo	Grupo JBS
Patricia De Vries-Van Loon	Ministry of Economic Affairs of the Netherlands
Renata Araújo Gomide	Grupo Pão de Açúcar
Renato Mauro Menezes Costa	Grupo JBS
Roberto Smeraldi	Amazonia
Thatiana Pereira Zukas	Grupo Pão de Açúcar
Thomas Eckschmidt	PariPassu

## Platinum sponsor

Bayer Crop Science

Bayer is a global enterprise with core competencies in the fields of health care, agriculture and high-tech materials. This year the company is celebrating 150 years of Bayer – consistent with its mission “Bayer: Science For A Better Life”. Bayer CropScience, the subgroup of Bayer AG responsible for the agricultural business, has annual sales of EUR 8,383 million (2012) and is one of the world’s leading innovative crop science companies in the areas of seeds, crop protection and non-agricultural pest control. The company offers an outstanding range of products including high value seeds, innovative crop protection solutions based on chemical and biological modes of action as well as an extensive service backup for modern, sustainable agriculture. In the area of non-agricultural applications, Bayer CropScience has a broad portfolio of products and services to control pests from home and garden to forestry applications. The company has a global workforce of 20,800 and is represented in more than 120 countries.  
<http://www.cropscience.bayer.com/>



## Gold sponsors

Grupo Pão de Açúcar

<http://www.grupopaodeacucar.com.br/home.htm>



Dutch Ministry of Economic Affairs

<http://www.government.nl/ministries/ez>



## Silver sponsor

Sustainable Trade Initiative

<http://www.idhsustainabletrade.com/>



Schuttelaar & Partners

Schuttelaar & Partners is a communications and strategic advisory agency focusing on sustainability and health in the areas of food, agriculture and innovation. It provides strategic advice and communication solutions, including positioning and reporting (content and design); stakeholder dialogue; and issue and reputation management.  
<http://schuttelaar-partners.com/>

# www.future-of-food.com

## Schuttelaar & Partners

Schuttelaar & Partners is a communications and advisory agency focusing on sustainability and health in the areas of food, agriculture and innovation. It provides strategic advice and communication solutions, including positioning and reporting (content and design); stakeholder dialogue; and issue and reputation management.



### Contact information

Schuttelaar & Partners  
Zeestraat 84  
2518 AD The Hague  
The Netherlands  
[www.schuttelaar-partners.com](http://www.schuttelaar-partners.com)

Edwin Hecker, [ehecker@schuttelaar.nl](mailto:ehecker@schuttelaar.nl)  
Rutger Schilpzand, [rschilpzand@schuttelaar.nl](mailto:rschilpzand@schuttelaar.nl)



Bayer CropScience



Ministry of Economic Affairs



FUTURE OF FOOD  
IS CLIMATE NEUTRAL  
WITH FAIRCLIMATEFUND

<http://www.fairclimatefund.nl/en/>