Metropolitan Food Security

Food Security always a priority

Food security has always been a priority of mankind. Availability and reliability of supply, that is. To be distinguished in this context from food-safety and quality that nowadays so often hit the headlines. And yet, as we shall see, there is an important relationship.

Since a few years food security is enjoying new attention, though not enough to see science tackle the issue in its integrity. Even less attention is given to the (food related) implications of urban development. Recently, however, some new initiatives can be observed that show awareness of this gap. Metropolitan Food Supply (MFS) is one of the earlier players in this field. Supported by Stichting Metropolitane Landbouw (SML) it is pleased to summarise its position and view on developments.

There is no doubt that in the coming decades the gap between food supply and demand will not shrink. It will grow. The world is rapidly urbanizing and already half of its population lives in cities. It is within these cities that economic growth is centred. It is there that a few decades from now three quarters of the predicted 9 billion people are projected to live! They need to be fed - with consistence and reliability - and to be able to find jobs. Stability, always a "ruler's first concern", may largely depend on it.

Causes	Effects on FS	Economic opportunities for NL companies
DEMAND SIDE		
Population growing towards 10 billion	Demand increase in absolute terms. Food shortageslead to humanitarian and (geo) political dilemmas. Securing local food production priority for current food importing countries (China, Russia)	Suppliers of technology and knowledge to minimize losses throughout the chain; Seeds and propagation material; Large scale farming (agrotech and GAP)
GDP growth, growing middle class	Changing food consumption patterns: • More animal proteins • Convenience • Processed and packaged food • Food safety • Out of home	Dutch poultry chain; Dutch dairy chain; Meat processing equipment; Food processing and packaging machinery; Dutch food safety standards, chain-organization; Traceability; More fresh produce
Urbanization	Demand is concentrated in densely populated areas	Cold chain; Food-chain logistics; Chain optimization; Multi modal transport/urban distribution; Horticulture
Former 'Third World' economies catch up	Rapid demand increase in countries that lack the experience in intensive food production	Companies able to complement local standards, add value to small holder farming, low-tech environments, lack of power grid; Water Sanitation; Integrated concepts
SUPPLY SIDE		
Decreasing availability of arable land	Supply does not keep up demand	Horticulture; Large scale farming (agrotech and GAP)
Production areas far from cities	Food losses, lack of (skilled) labor	Direct food exports
Pressure on living environment	Societal acceptance of food production in / near the city, (animal) health concerns,	Technologies to reduce air/water pollution; Noise reduction forfactories and farms; Waste management; Circular economy / bio-based
Availability of input	Lack of (economically) available inputs future bottleneck for production	Energy and water efficient technologies; Decentral energy provision; Desalinisation
Environmental concerns	Loss of biodiversity, global warming	Green/sustainable solutions will become more important

For this and other reasons therefore, governments are pressed to develop policies aimed at raising agricultural output, and investing in local-for-local production and added value.

Apart from quantity requirements, metropolitan areas also face new quality-demands. They harbour a fast growing urban middle class, with increased purchasing power and changing consumption patterns. Less calories are desired from staple foods such as rice, wheat and potatoes. More meat, fish, dairy products, fruit and vegetables, juices, soft drinks, beer, wine and spirits. Demand is geared towards taste, freshness and even fashion. It is based on ease of purchase and preparation. And if avoidable, no health hazards please! These developments add up to a huge challenge to redesign supply chains and at the same time think how to create much needed jobs and income.

The rural areas, on which the food supply of cities largely depends, show the other side of the coin. Metropolitan expansion usually took place at the expense of adjacent alluvial, fertile land, well suited for the harvests that originally started the whole urbanisation process. Now the dog bites its tail and food production - the bullit of having to contend with less favourable areas. Less prosperous, further away, if not backward. Areas that face depopulation, ageing and brain drain. Youth attracted to urban glamour and less to a future in subsistence farming. Small household farmers having a hard time to find a successor. Yet these rural areas are predominant in world food production. Their development is as crucial to city-survival as the metropolitan markets are to farming.

Adding value is the glue that should be able to stick the two elements together.

Value creation in the chain requires better organisation, funding and technological input. Finance and efforts to improve organisation often are already focus of local governments and donor-partners. Their efforts, however, rarely go beyond improvement of infrastructure and general rural development, the easiest way to disburse available funds. The stage of primary production, apart from extension, usually is left to private parties, with non-governmental organisations (NGO's) sometimes in a catalysing role. Indeed, here are the first gains to be made, in terms of organisation (cooperatives?), (micro) finance or in particular technology.

Already a mobile phone and "*WakaWaka*"* make a farmer (or group of them) more knowledgeable on the weather and prices, less dependent on the middle man. The same goes for packaging, storage and first-stage processing: less losses, better prices, easier transport (less volume) to the metropolitan markets, where finishing can take place or a better price negotiated. A product in better shape with longer shelf life.

In short, development of the food- and value chain potentially serves farmer and city-dweller alike.

This of course is the supply side of the story, the preferred approach of farming and any farm related policy. Attention should also, perhaps even more, be devoted to demand. Entrepreneurs in the city have an interest to scout for trends in demand and try to find the matching source of supply. They may want contract-farming, even invest in it. They certainly may try to bring processing closer to the market. And it is here that governments/donors could also lend a facilitating hand. Improve the infrastructure, both physical and non-physical, for the investments required. The resulting jobs in industry, construction and services will only in part match population influx. It's nevertheless the evolving multiplier that stands the best chance to provide some labour market balance in the context of urbanisation.

This chain interdependence, whether seen from the bottom or the top, may prove to be the strategic element in the food-supply to the growing world population. The awareness of it should make it easier to come to grips with losses and waste. As well as with scarcity challenges that will have to be met: of land, water and energy and of respect for environment and biodiversity to name just a few. And it is here that partners from The Netherlands might find their chances. Through supply to participants in the chain, top-end or low, support this awareness and bring in practical experience, knowledge and technology. Thereby enhance local capabilities and invest if the chemistry is right. They can always help to supply "overseas" backup in case of unexpected shortages or end-product fallout.

** Low-cost solar powered pocket light device / cellphone battery charger.*

The Netherlands almost a mega-city and exporting

The Netherlands cannot boast to have real mega-cities. You would think of places like Shanghai, New York or Johannesburg, counting, 23, 22 or 7 mln inhabitants respectively, on areas of 6.350, 5.400 and 1.650 km^2.

The Netherlands counts in total some 17 million inhabitants, 7.1 of which live in its western provinces, the so-called Randstad, an area of 8.300 km^2. Seen from this perspective we come close to being a mega-city ourselves. This mega-city moreover, is not only supplying to itself, but also successfully servicing Europe's most densely populated areas in the wide neighbourhood. There are a number of reasons why.

First of all of course, the geographical location in NW-Europe. The sea-end of large rivers, allowed The Netherlands to develop itself as a gateway to the hinterland. At the same time it had to keep its feet dry (at some cost) and deal with the risk of downstream disadvantages, environmental, flash floods and others. It sharpened the sense to combat pollution where possible and respect nature where indicated. Both with a fair degree of success.

In summary, the national ambition is traditionally geared towards unlocking nature's potential, doing more with less and to improve the quality of life. Or in terms of the subject of food security, to improve the efficiency of human endeavour in ensuring optimal food security and quality.

As a small nation, where land is expensive and through its history has been hard to come by, "doing more with less" is hard wired into the Dutch way of doing things. We make the most of what we have. Whereas globally 33% of land is used for crop and livestock farming, The Netherlands are using 68% of their land for this purpose. But it is the efficiency with which this land is used, which truly shows how much more can be done with less. Most of Dutch soil is fertile and water usually not too big a bottleneck. Nevertheless for parts of our production, (under glass or otherwise) the industry has sought to be become even less soil/water dependent; to be able to fully control climate, pests and nutrition. Combined with up to date harvest and post-harvest technology, the added value per hectare in The Netherlands is up to five times higher than the European average! It may be one of the skills that a rapidly urbanising world is keen to acquire.

But these skills do or did not come by themselves. They are the result of a continuous drive for further innovation. When steamships made European markets overflow with low-priced US-wheat a century-and-half ago, The Netherlands opened a high-level agricultural training and research institute instead of closing its borders: the Wageningen University and Research centre (WUR).

Measured by the number of publications related to the agrifood sector, 2 Dutch universities now feature in the European top 10; in itself testimony of the readiness to make public means available for the research concerned. As to private investments, R&D investment by companies located in The Netherlands, ranks 2nd largest in Europe in terms of % of GDP. Often, the two elements: public and private, are brought together to help to ensure that scientific developments rapidly find practical application in the food-related industry. Breeding technology offers prime examples. It is one of the reasons that partnership is encouraged where possible: partnership between universities, knowledge institutes and industry.

The Netherlands is the 2nd largest agricultural exporter in the world in terms of added value, 2nd only to the USA (which is 296-times the size), accounting for 7.5% of the global export of agricultural and food products. For primary products, The Netherlands ranks 22nd globally.

The importance of food processing is reflected within the Dutch industry; out of the 25 largest Dutch companies, 8 of them are food processing companies, operating and competing successfully on a multinational scale. 4 Dutch companies count themselves among the global top 40 of food & beverage companies.

Its relative status of agricultural superpower, after all 2nd exporter of the world in terms of added value, The Netherlands does not only owe to production. It equally has to thank its skill to handle and distribute produce, fresh and perishable in particular. Processing and logistics in short. In principle and when needed, we can send goods halfway across the globe in record time still fresh when they reach their destination, no matter where that destination is. Perhaps good to know when looking for a backup supplier, who is also aware of sustainability and ecological footprints.

Years of trade have nurtured these skills. First of all development of a (physical) logistical network in the physical sense that few can match. Just in time delivery, shelf-life, traceability as key quality-factors. Then the much more psychological notion of chain-awareness. The notion that all elements in the chain depend on each other: transparency, reliability and trust are indispensable ingredients for long-term success.

As said, "*more with less*", *research-input, logistics,* were helped by the fortune being part of NW-Europe's delta region, where big markets were to be found in neighbouring countries. But at the same time the successful exports to these neighbours bear testimony to competitive qualities; both in terms of the produce itself and its handling, without which we would not be allowed the supply-function granted so far.

Finally, the Dutch are also keen investors; traditionally aware of the need to generate income outside the confinements of national borders. Largely the domain of big food-related enterprise (Unilever, DSM, Heineken, Royal Friesland Campina), smaller and medium sized companies also invest in international opportunities. Prime examples in horticulture and agro food abound. As with all investment, risk-assessment and earning prospects are the determining factors. Getting acquainted through trade is usually the first step.

The twinned MFS and NAFTC foundations will in the areas where they are active try to lend a helping hand. The topic of the following chapter.

MFS Task force Russia 2013/2014

Between Moscow and The Netherlands contacts on improving the fresh food supply developed over the last years. On the occasion of Golden Autumn 2013, the book “Moscow Fresh Supply” was released and a request for a proposal was issued by the end of that year. Subsequently, a consortium led by MFS, presented a formal proposal in February 2014.

The Moscow follow up was placed in the hands of Russian investors, still grappling with the problem. Elements of the future oriented proposal, however, raised interest in other parts of Russia and found, it would seem, their way to a Presidential decree instructing the administration to bring forward ideas on improved food distribution. MFS established a formal “Task force Russia” under the umbrella of the joint Netherlands-Russian Economic Commission. Operations came to a slowdown under influence of the Ukraine-crisis. Nevertheless membership and potential project-portfolio hit double digit figures at the time of issuing this brochure.

PARTICIPATING IN MFS

MFS is a flexible and adaptive organisation. It utilises its vast network to facilitate joint activities aimed at providing solutions to food security issues for metropolitan areas.

“On the ground”, MFS in tandem with its NAFTC-partner tries to tune in to project-leads and bring suitable coalition partners together for implementation. It operates as broker, rather than as project director itself. A broker between its coalition partners (usually project-tailored) and, if required, in relation with the foreign commissioning party. In doing so, it naturally has to mind the earning potential for all involved. As a non-profit organisation, cost-recovery is of course welcome, but co-creation the first target.

The characteristics of MFS are:

- Neutral, non-profit, well connected, chain- and future oriented
- Multi-sectoral, multidiscipline, hands-on
- Aiming for partnerships and coalitions
- Not scared to council, open to listen and adapt

MFS operates bottom up at the same time being well connected with the top.

It closely cooperates with its sister-foundation NAFTC, in particular where the latter has offices in the field.

Participation is open to:

- Trade organisations which represent the interests of Dutch companies
- Bilateral Chamber of Commerce, export platforms, support points and organisations specialized in specific nations or regions
- Educational institutes
- Knowledge institutes
- Non-Government Organizations (NGO’s)
- Individual companies

Reasons for joining:

- Direct involvement with initiating projects
- Joint lobby (and input in it) towards government
- Joining a high-level network of parties in the agrifood sector
- Provision of information regarding activities and developments in the sector
- New perceptions, knowledge and contacts regarding food security opportunities

AFFILIATED ORGANISATIONS

NAFTC Netherlands Agro, Food & Technology Centre

GMV facilitating food

FME POWERED BY DUTCH TECHNOLOGY

Stichting Metropolitane Landbouw

Netherlands Agro, Food & Technology Centre - Support offices for Dutch Agribusiness

GMV - Sector Association for Dutch Manufacturers of Food Systems

FME - Sector Association for the Dutch Technological Industry

Stichting Metropolitane Landbouw - Foundation Metropolitan Agriculture

CHALLENGES TO BE ANSWERED

The Netherlands produces 80 kilograms of tomatoes per 1 m², with only 4 litres of water per kilogram. Other countries use 80 litres of water per kilogram, in order to grow 4 kilograms of tomatoes per 1 m².

With a share of 70% of the world market for seed potatoes, The Netherlands is the world leader in this field. The annual output is about 1.3 million tonnes, of which more than 50% is exported.

Double production, using half the (natural) resources

Production figures of some key agricultural products show the ability of Dutch producers to obtain the highest yield out of the limited land at their disposal. These levels of efficiency are well explained by the application of top-end expertise in fields like: genetics, plant and crop science, feed management, good agricultural practices and use of agri-related technology and automatization, such as: agricultural mechanization, energy and water smart technologies, intelligent and responsive ICT-driven systems and drip-irrigation

Meeting the challenge to increase global agricultural output is of course not simply a matter of copying proven practices into other parts of the world. It is the orgware behind the knowledge and technology that brings all the pieces together and enables us to make the most out of the available resources.

Harvest and Post-Harvest Losses

Significant amounts of the food produced worldwide are lost in and after harvest. They can range from 20% to over 60% of what was initially produced or intended to be. Several factors are at play, such as:

- Products are harvested too late or too early;
- Weather influences (drought or excessive water, extreme temperatures);
- Contamination by micro-organisms;
- Physical damage, such as: on the field caused by humans, machinery, animals and pests; improper harvesting, sorting and handling;
  Deficiency in transport and storage;
- Lack of knowledge of climate control, adequate packaging, handling;
- Lack of chain awareness.

The importance of technical knowledge needs little illustration: When to sow and what? How to nurture and protect crop? How to deal with diseases (animal or phytosanitary)? How to best preserve a product and how to maximise its shelf life? Not only knowledge but also behaviour determines production results: respect or negligence towards technical requirements, feeding, fertilising or disease protection.

Chain awareness, finally, is an often underrated element. Substantial losses occur when chain participants insufficiently value their interdependence, lack trust in their trading partners or imagine to gain by losses of the other. Chain awareness is in the end important to consumer and producer alike. It helps to reduce the cost margin between supply and demand. For the farmer it opens the option for a better price, for the consumer a lower one against a better quality.

And obviously loss-reduction, whether in harvest, post-harvest, or animal husbandry, helps to mitigate scarcities or under-supply. It helps to improve access to food and combat hunger, of which too many developing countries are periodically at risk.

A wide range of approaches to loss-reduction is available, depending on the type of loss to be addressed. Solutions may be found in hardware, high tech or low tech, for example use of liners for existing packages, sorting produce by quality, providing shade, use of tables, dry ice for insect control, low energy cold storage, monitoring produce temperature, improved transport, low-cost processing, solar drying and curing.

They also may depend on software, competencies, skills and behaviour. And finally on organisational capacity, ability to work together: orgware. For if technologies are not within reach for individual smallholders, powerful incentives push towards mutual cooperation: the income-gains linked to quality improvement and added value; and most of all perhaps increased independence from price-setting by traders.

It is with *hard-, soft- and orgware* based solutions that the challenges described in this chapter need to be met.

Distribution within city borders

Most mega-cities face growing mobility and consumption demand of its citizens. Not only in terms of product-choice, also in the way food is being purchased. A shift from wet markets to retail, more out-of-home consumption, internet sales, etc. Middle-class consumers prefer their food fresh, of constant quality, safe and available 24/7, 365 days a year. Their wishes present a huge challenge to daily channels of distribution.

A metropolitan area with 10 million mouths to feed for example, will have an estimated 100.000 shops selling food products. These 100.000 shops need to be supplied every day. Unless organised otherwise, this need could generate 100.000 car/van movements a day, collecting fresh food. Therefore, there is a strong case to think twice and try to avoid or at least mitigate the impact, the traffic congestion and unnecessary pollution. It's time for smart approaches.

(Some) Strategic planning required

The production of food, at least the final processing, is in coming decades expected to move closer to where it is actually consumed; at least in as far as circumstances like availability of land and water will permit. Several factors are at play:

- Local food availability will increasingly be perceived to be of strategic interest, nationally or regionally.
- But also economic and environmental aspects are pulling their weight. People want greater sustainability and economic efficiency; shorter delivery times and lower costs of transport. But also less physical loss of transported produce.
- Solutions will have to integrate a number of requirements. "Market pull", the mirror of local demand, will come to outweigh the more traditional approach of supply or "technological push".

More than ever governments and city-planners have to think of spatial planning, and in this context about the location of agroparks, distribution centres and wholesale markets.
A clear policy vision of where to go will help, but getting there over a long stretch of time requires an adaptive approach. Defining the future, after all, is one thing; to actually build it is quite another. Step-by-step road maps can prove to be helpful tools in this respect; provide guidance for progress as well as for the inevitable intermediary adjustments. But also logistic models and assessments of the impact on stakeholders to be involved, as is the collection of basic data. Dutch planning experience may be of help in the process. Local government calls the shots; its coordination and coherence in view quite indispensable. Not a matter for investors only.

WHAT CAN MFS OFFER TO FOREIGN PARTIES?

As can be read in previous pages MFS aims to

- Secure food supply for metropolitan areas
- Contribute the goal of double food availability and higher quality, halving the use of required resources.

Its approach considers the entire food chain. It aspires to provide innovative and sustainable solutions which can be applied internationally. Its main focus lies in areas where the demand for, and added value of available services and solutions is the highest: fast emerging economies ('BRIC' and 'CIVETS') and developing countries.

Neutral, non-profit, well connected, chain- and future oriented MFS is an 'open' and flexible networking organization through which companies, knowledge institutions, government representations and other stakeholders from different sectors are brought together to find answers to the aforementioned challenge. MFS was founded to bridge the gap between different disciplines and to create new alliances.

Multi-sectoral, multidiscipline, hands-on approach Our track record shows our ability to convert innovative abstractions into practical propositions. We have done so by facilitating the development of master plans for city governments, establishing task forces, organize MFS conferences world-wide, organizing trade missions and moderate seminars and workshops. All these activities had in common that they brought together parties of various fields of expertise beyond the boundaries of their own sector and supply chains.

Sparring partner for strategic planning and training Where required MFS-partners can share skills and best practices in matters of strategic planning. Densely populated areas make it necessary to think ahead on future developments. The Netherlands has been no exception. So Dutch planners, designers and architects can be found to spar in this matter.

With a wide range of educational institutions available- universities, applied science institutions and practical training centres-, MFS can also support its foreign partners in seeking competence-development for their project staff.

Ad-hoc forms of cooperation Within MFS parties, interested and competent, are encouraged to form an ad-hoc consortium to address the opportunity presented. They can try to react as "one party" to market demand, tenders, questions of project management etc. The launching party finds a one stop shop, not a scattered group of individual suppliers.

Platform MFS supports its participants with all the necessary tools, knowledge and activities. Not scared to counsel, open to adapt and listen. MFS does not become part of consortia itself. It serves as a primary point of contact for its international partners and ensures that the best knowledge and technology are made available. Remaining free from commercial ties, MFS can bring forward the best solutions addressing the essence of your problem.

MFS - NAFTC Portal Our network is our main asset. A light platform and small bureau at the Dutch Federation of Technology Industries (FME) serve as a portal through which your inquiry finds its way to those partners best suited to address your request. Direct contact with the NAFTC-offices or MFS-task force Russia (through the FME-portal) can help to specify the request.

Export trade visits For more complex inquiries the MFS - NAFTC portal can guide you through the best practices available in The Netherlands and scout for relevant expertise. A tailor made visiting program may consist of company visits, expert meetings and round table sessions. The organization will have to be budgeted on the basis of real cost. A clear definition of the project ambition at the initial intake is great help in this context.

Initiating task forces Once the intention for cooperation is confirmed, the Portal or relevant NAFTC-office will try to bring competent parties together for the further advancement of the project. MFS can help to specify problem definition, assist in mobilizing suitable partners and take the lead in tackling the first hurdles. It can think ahead on training options and management assistance if required. When partners are selected and a consortium has been formed, MFS withdraws from the project.

WHAT CAN MFS OFFER TO DUTCH PARTIES?

Food supply issues of an increasingly urbanised world, merit to be reflected on. As solutions may be needed earlier than initially foreseen. At the same time they provide great opportunities. For science and policy makers. For the Dutch agrifood-affiliated industry, in as far as it is oriented towards export and possibly investment, especially where knowledge and technology are concerned. Based in a densely populated and largely urbanized environment, Dutch companies are well positioned to put their competences to good use elsewhere on this planet as well.

Apart from the "*think tank*" approach described in previous pages, to MFS the urban food security issue also presents a major opportunity "*on the ground*". It aims to find new markets for its interested stakeholders and improve their chances by encouraging cooperation between them. To this end MFS closely cooperates with its sister organisation NAFTC (Netherlands, Agro Food & Technology Centre) which has offices in China, India, Vietnam and planning to enter Africa in the near future. In Russia the "fieldwork" is done by a task force based in The Netherlands.

Currently, MFS and NAFTC share their portal situated within the Dutch Federation of Technological Industries, FME.

Initiating partners and projects Both MFS and NAFTC take pride in helping to initiate. Initiate new partners and stakeholders to the countries where their offices are established or their services targeted. Initiate food supply projects that depend on interaction between disciplines, often innovative therefore. Interaction also between participating parties, who have to be willing to share trust and information, willing to rely on a partnership of give and take.

Forging networks and alliances The heart of the solution to metropolitan food security, lies in multidisciplinary cooperation. MFS and NAFTC aim to promote cooperation between parties which are directly or indirectly engaged in export of agrifood solutions (knowledge, technology, services, products). We organise information meetings on food security themes, specific countries or market developments to bring our network partners together.

Where business and government interests meet While NAFTC offices largely operate in the field, MFS maintains on behalf of both partners contact with government and related organisations.

Both for the purpose of raising awareness of global food security issues and of the potential of Dutch industry to contribute to their solution. This liaison-role covers a.o.

- Dutch government (Ministries of Economic Affairs and Foreign Affairs), embassies, Topsector-management
- Dutch industry, trade organisations.
- Political parties
- Educational and knowledge institutes
- Foreign (both government and industry)

Activities:

MFS and NAFTC create market oriented programs for countries where they concentrate their activities; first of all the emerging economies within BRICS and CIVETS (formulating business cases, bringing together parties, submitting project proposals)

- They organise seminars about food security opportunities in specific locations across the globe
- Coordinate with trade organisations, export platforms and embassies in order to streamline the course of action for specific countries
- Participate in, and sometimes organise, international conferences about food security
- Interact with ministries and embassies on MFS-related topics

REFERENCES

NAFTC 2008 - onwards

The Netherlands, Agro Food & Technology Centre (NAFTC) is a public-private partnership, representing the Dutch agrifood sector in emerging markets. First set up in 2008 in Beijing, NAFTC currently has offices in China, India and Vietnam. NAFTC represents and assists its members from the Dutch private sector and knowledge institutes, both individually and collectively. They provide services such as market intelligence, match making, marketing and promotional activities, logistical support, incubation, access to local networks, and individual advice and market guidance.

MFS and NAFTC are twinned and intertwined organisations. They worked together during trade missions and conferences in India, South Africa, Mongolia, Israel and the Palestine territories, etc. with NAFTC as local executing office and MFS providing input from its home base.

COFCO Master plan – Beijing 2011/2012

According to the Beijing 12th Five Year Plan, the Chinese capital will enter the construction phase of a modern international metropolis. Three aspects are emphasized: culture, science & technology and environment. The "world class city"requires a modern agro-industrial development, eco-friendly and ensuring food safety and security. For this purpose the Beijing Government contracted the industry chain of COFCO to build an "agro eco-valley" of some 1.200 ha together with high end agri-businesses from China and around the world. In one of the first phases after the signing of this agreement, the strategic partners asked a consortium consisting of Royal HaskoningDHV, WageningenUR and Dutch sector association GMV to develop an extensive master plan.

This master plan helped to inspire the founding fathers of the MFS foundation.

MFS Missions to Israel and PA 2012/2013

In June 2012, MFS organised a visit to Israel for 30 leading Dutch companies in the Agrifood HiTech Sector and 5 organisations, during a 2,5 day networking mission including full day seminar. The Seminar was opened by Dutch Deputy Prime Minister Mr. M. Verhagen, Mrs. O. Noked, Minister of Agriculture and Rural Development of Israel, and prof. E. Kandel, the head of Israel's Economic Council. The event had three aims: facilitate the creation of MFS-related innovations between The Netherlands and Israel, compare notes on trends and problems in the field of food security and update participants on the international activities of Platform MFS.

Several bilateral agreements were signed between Dutch and Israeli partners and several trilateral agreements between Dutch, Israeli and Indian partners. During a follow-up visit in 2013, the Palestinian Authorities were visited as well. Several bilateral and trilateral cooperation agreements were signed both aimed joined products and market development.

MFS-policy seminar – Autumn 2012

For the benefit of the newly elected Lower House MP's MFS organized a "déjeuner pensant" where participants From industry, politics, science and NGO's were introduced to the prospects of global food security and the potential impact of urbanisation.

Trade Mission & Conference South Africa 2012

In 2012 MFS, Sanec and GMV organised a food security trade mission to South Africa. A delegation of 12 Dutch companies visited South Africa to identify business opportunities in the food security sector. Among delegates were companies active in irrigation solutions, organic food production, nursery management consultancy and research. The program consisted of company visits and B2B matchmaking. At the same time the 3rd International Conference of Metropolitan Food Security was held in Johannesburg.

Food Security Trade Mission & Conference: India 2013

In 2013 MFS organized a trade mission to India. The focus was food security issues of several larger urbanized area in Gujarat, Maharshtra and Karnataka. Companies from agricultural and processing sectors joined the mission. Part of this mission was the high-profile 4th Metropolitan Food Security Conference, organized together with NAFTC and in association with the Bombay Chamber of Commerce. During the event, the Maharashtra government and NAFTC signed a Memorandum of Understanding, which enabled the government to facilitate the education of farmers and train them to adapt to new technology.

Trade Mission to Mongolia 2013

In October 2013, MFS led the first Dutch Agricultural mission to Mongolia. By presenting itself as a valid discussion partner to the Mongolian government, MFS was able to open doors and create business opportunities. Government and Mongolian industry are keen to develop home food production, encouraged by the substantial income gains made from mining the national mineral resources.

About MFS

Metropolitan Food Security is a non-profit foundation, located in The Netherlands.

Its foundation board has business community, knowledge institutions and government as its background. Board members are typically people with a wide network and proven track record. As such they not only feed discussion and set the agenda, they bring a valuable network that, all combined, leads to new combinations. The chairman of the board is also usually its spokesperson.

The foundation is supported by a bureau that deals with the day-to-day executive tasks and provides the home basis to the foundation. For projects and activities, additional experts are hired who fit the specific task.

The MFS advisory council is a non-executive body that convenes twice a year. It consist of (former) scientists, politicians, CEO's and other well respected experts who enrich thinking and action with their experience and advice.

Metropolitan Food Security

P.O.Box 190,
Boerhaavelaan 40
2700 AD Zoetermeer
The Netherlands

P: +31 79 353 11 35
E: info@metropolitanfoodsecurity.nl

www.metropolitanfoodsecurity.nl

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