

Report from the
Save Food Partnership Event
for the Private Sector
and Civil Society

10-11 December 2013
FAO Headquarters, Rome, Italy

Global Initiative on Food Loss and Waste Reduction (SAVE FOOD)
<http://www.fao.org/save-food>

EXECUTIVE SUMMARY

167 participants from 40 countries participated in the first Save Food partnership event to learn more about the initiative and to find more ways of working together to reduce food loss and waste reduction.

The two-day conference aimed at improving information sharing and commitment to the Save Food agenda through 10 sessions with more than 30 presentations and interactive panel debates by actors in the food value chain from all regions of the world.

PURPOSE, EXPECTED OUTPUTS, ORGANIZATIONS PRESENT AT THE MEETING

The **objectives** of the partnership event were (i) consensus on the collaboration in the Save Food Initiative and the roles that different partners (can) play; and (ii) strengthen and expand Save Food Initiative network. The programme of the event is available in Annex I.

The **participants** were organizations and companies active in food loss or waste reduction: private companies and associations from industry and agriculture, national and international institutions, NGOs and CSOs, development organizations. A list of participants is shown in Annex II.

ORGANIZERS

The meeting was organized by the Food and Agricultural Organization of the United Nations (FAO) and supported by Messe Düsseldorf GmbH.

EVALUATION

49 participants filled in the evaluation form at the end of day 2, and the event received an overall positive review of 3.75 out of 5, or 75 %. It was suggested to have more interactive spaces, such as workshops or group sessions. The meeting breaks were noted as a particular good opportunity to exchange information and network. The evaluation is available in Annex III.

Day 1 FOOD WASTE – Tuesday, 10/12/2013

INTRODUCTION

Eugenia Serova, Director, Rural Infrastructure and Agro-Industries Division, FAO, welcomed the participants to the meeting stating that this was the second partnership event for the SAVE FOOD Initiative (the first meeting was organized and hosted by FAO for the U.N. and other international agencies¹ in September 2013), and that the Save Food Initiative is already working with public, private and civil society partners.

Daniel Gustafson, Deputy Director-General Operations, FAO, made the opening address acknowledging the participation of the technical Rural Infrastructure and Agro-Industries Division and the Office of Communication, Partnerships and Advocacy to address the problem in a holistic manner. Currently 14 FAO divisions, Regional Offices, and Liaison Offices are working together. FAO's role and that of other public sector is vital but the solutions have to come from the private sector, which is the driving force from consumers, retail, and small holders that will need to have safety nets if impacted negatively by food losses. The Save Food Initiative is the best example of the evolution of FAO's Partnership Programme.

Marcela Villarreal, Director, Office of Communication, Partnerships and Advocacy, FAO, acknowledged the role played by the private sector as one of the driving forces, along with the civil society and the public sector for identification and implementation of solutions to reduce food loss and waste, as one of the ways to contribute to the sustainability of the food system, where responsibility is shared. It is unacceptable that more than 800 million people go hungry every day. This is the right time to address food loss and waste for better and more efficient interventions that are meaningful, measurable, and sustainable. FAO's neutral role is to ensure that we bring together the partners and this is also highlighted in FAO's new strategy for partnering with the private sector.

Bernd Jablonowski, Director Interpack, Messe Düsseldorf, stated that the Save Food Initiative itself is built on a public-private partnership between FAO and Messe Düsseldorf GmbH and gathers industry representatives across the globe, building awareness through information dissemination with the SAVE FOOD exhibition that travels around the world. In May 2013 FAO signed a Memorandum of Understanding with Messe Düsseldorf. Mr Jablonowski recognized that it is not an easy task to communicate that the industry is a part of the solution. The Save Food Initiative is open to partnerships along the entire value chain and registers now around 100 companies. Available funds are to be used to develop food loss and waste reduction projects.

A. SETTING THE STAGE

1. Definition of food loss and waste. Robert van Otterdijk, Agro-Industry Officer, Rural Infrastructure and Agro-Industries Division, FAO, presented the current draft of the FAO definition of food loss and food waste and announced that early next year FAO will release its endorsed definition. Van Otterdijk stressed that the FAO definition is not supposed to be a law, but rather a guideline and reference point for people working in the area of FLW reduction. He also emphasized that what is considered as 'edible parts' of food products is highly dependent on the culture of reference.

¹ Link To Page FAO Save Food Website

Food Loss and Waste refer to the decrease in mass (dry matter) or quality – particularly nutritional value, and subsequent economic value – of food (edible parts) that was intended for human consumption, throughout the supply chain. Food that was originally meant for human consumption but which exits the human food chain is considered as food loss or waste, even if it is then directed to a non-food use (feed, bio energy).

Food Loss refers to food that during its movement along the food supply chain gets spilled, spoiled or otherwise lost or incurs reduction of quality before it reaches its final product or retail stage.

Food loss is the **unintended result** of the process or the institutional/ legal framework. **Food Waste** refers to food that moves through the food supply chain up to a product fit for human consumption, but is not consumed because it is discarded, whether or not after it is kept beyond its expiry date or left to spoil. Food waste is the result of negligence or a **conscious decision** to throw food away.

2. Socio-economic Impact of food waste. Yuca Waarts, LEI Wageningen UR, The Netherlands, presented the socio-economic impacts focusing on the question: why are food losses and food waste problematic? Ms Waarts stated that it represents loss of money; it is morally unacceptable from a food security and hunger perspective; and implies a loss of all embodied resources and have combined and cumulative natural resources/ environmental impacts.

The method used by LEI is scenario analysis using the MAGNET General Equilibrium Model² for the timeframe from 2012 to 2020 using FAO 2011 data³. Three scenarios were modelled concerning reduction of food waste only at retail and consumer level: (i) business as usual; (ii) food waste reduction; (iii) healthy diet.

The scenario simulations highlighted the need to: (a) know the costs and benefits in order to be able to focus the interventions; (b) take into account the micro- and macro-economic dynamics while ensuring reliable and detailed data collection; (c) adequately calculate costs of food waste reduction and prevention (missing from research literature); (d) tackling food waste at consumer and retail level has an important role to play but it is not the only solution to address food insecurity; (e) if food security is the prime concern, it would be better to focus on other policies such as market access, infrastructure, and investment climate.

3. Environmental impact of food waste. Clément Tostivint, Project Manager, Environmental Impacts Quantification, and Clémentine O'Connor, Project Manager, Sustainable food, BIO Intelligence Service, France, presented on the *Environmental impacts of food waste*.

Main findings of the FAO 2013 *Food wastage footprint: impact on natural resources* report: (i) the later a product is wasted along the supply chain, the higher the environmental impacts as impacts add-up along the chain from agricultural production to consumption and waste management. E.g., the highest carbon footprint of waste occurs at the consumption phase (37 % of total), whereas consumption only accounts for 22 % of total food waste; (ii) the current estimates are showing more food waste in medium to high income regions with key focus on the carbon footprint, water consumption, land use change and degradation. Regional carbon intensity is higher in North America than in Europe because the share of

² Retail in the MAGNET model includes retail organisations, restaurants, hotels and wholesale

³ FAO. 2011. Global food losses and food waste.

meat waste in North America is higher; (iii) footprints can change between regions; with loss and waste in low income regions tending to have a lower impact on blue water and land use. E.g. carbon intensity is very low in Sub-Saharan Africa because the share of losses in starchy roots is more than 50 %. The carbon intensity in Asia is high, due to the carbon footprint of lost cereals, most notably rice; (iv) measures for prevention and mitigation are cross-cutting: better measurement, target setting, economic instruments. E.g. better quantification of food loss and waste would enable more effective targets for reduction; (vi) supply chain management and on site quantification of food waste for restaurants seem to be effective in parallel with food recovery and redistribution enabled through capacity development for safe food handling, revised taxation environment, and infrastructure improvement for donations; (vii) policy measures need to consider the range of costs for quantification and the benefits of environmental impacts reduction for the food system; (viii) for the European Union target of 10% reduction of food waste is equivalent to 27 ton of CO₂ reduction.

B. FOOD PRODUCTION AND TRADE

4. Farmers and over-production. Maeve Whyte, Director Brussels Office, National Farmers Union, United Kingdom. Main points: (i) Farmers hate waste; it is demoralizing, expensive, a problem of an integrated supply chain. (ii) Over-production happens for many reasons and is expensive. Potential reasons: weather and compensation for eventual mechanical damage that would generate out-grading and waste. (iii) Demand forecasting is difficult and often farmers take all the risks for wrong demand forecasting to fulfil supermarket contracts. (iv) Selling crops for animal feed or ploughing into the ground if the food products are not as desired. E.g. selling for animal feed recovers only 10% of the value. (vi) Alternative markets are needed for imperfect products. (vii) Where to improve: e.g. carcass utilization and forecasting demand for the '5th quarter' (offals) that has a massive value outside the EU, such as in Japan and China; explore shorter food supply chains; consumer education and effective communication from the retailers to their consumers to accept safe and nutritious but less aesthetically appealing produce; adopt visually unappealing but effective plant protection mechanisms such as nets to reduce losses; solutions may be available at producer level, such as cutting up rejected carrots and selling them as "nuggets", thereby reducing waste and creating a new market.

5. Food processing industry, food packaging. Graham Houlder, Principle Director, SLOOP Consulting b.v. Sustainability Director, EAFA and FPE. Main points: (i) the packaging referred to in the presentation is foil rollers and aluminium closures, containers, household foil and flexible packaging in Western, Central and Eastern Europe; (ii) concerns are expressed at EU level for marine litter and waste management. However, solutions exist in more collection, recycling, recovery, less landfill and litter; (iii) estimates state that packaging impacts on the environment are lower than the impacts of food waste; (iv) different technologies are available for longer shelf live (e.g. modified atmosphere), better portioning, and reduced contamination risk; (v) the use of Life Cycle Analysis (LCA) is relevant to identify gains and natural resources impacts. (vi) there is an identified a lack of data on consumer habits.

6. Retailers. Bernd Hallier, European Retail Academy, Germany. Main findings: (i) food waste cannot be solved by one or two countries. This is a global challenge and shared responsibility for food sourcing and hunger worldwide; (ii) there are privacy issues for data disclosure, and databases and research projects may gather and communicate data at aggregate level; (iii) the EU project *Forward* brings together food banks, retailers and academy for knowledge generation and integration of food recovery and redistribution; the

project identified that there are no contracts between retailers and charities and this represent a gap in risk, security and joint responsibility; trust building is essential.

DISCUSSION FOLLOWING THE PRESENTATIONS – PANEL MEMBERS: *Maeve Whyte, National Farmers Union; Graham Houlder, FlexPack Europe / Sloop Consulting; Bernd Hallier, European Retail Academy; Selina Juul, Stop Wasting Food; Vanessa Delmer, Packaging, Transport and Logistics Research Centre, ITENE; Clementine O'Connor, Bio Intelligence Service.*

There is a new economic paradigm of green growth that considers economic, social and environmental dimensions together in a world of limited resources.

Farmers, packaging industry, and retailers have all expressed concern that they seem to be blamed as food wasters. We should rather concentrate on what can be done and where can we make an impact together. Prevention and reduction of food waste is a shared responsibility, we need to look for concrete solutions. Moreover, we need to support and implement local solutions. In this respect we should stimulate networking and technical workshops at local level.

If farmers choose to produce 120% of the forecast retail demand, with the intention to sell as animal feed the fraction that is in excess to the actual retail demand, then this fraction cannot be considered as food waste.

Food waste in Denmark in 2012 was reduced at consumer level by 50%. Solutions are already available. As an example, in October 2013 the event United Against Waste was held in Copenhagen, and will now be repeated in other countries. Stop Wasting Food will use the award from the Nordic Council to connect food producers with charities through ICT. More research is needed to develop quality standards, packaging materials and technologies to increase shelf life. The EU Project EasyFruit was introduced as a project that works on extending the shelf life of fresh-cut fruits by means of the combination of active packaging and minimal processing treatments.

Part of the solution may be looking at successful models that could be transferred. E.g. in Belgium, the food system approach is promoting communities to access food produced in their local areas. Developing countries may form farmers' clusters that can cover production, processing, distribution and marketing.

60-70% of vegetables in India are sold by small retailers or farmers. It incurs around 25% waste. Data collection at micro level may not be viable as it is too fragmented. Seafood is a global commodity where production often is concentrated far away from consumption. The University of Tromsø has been studying the constraints in supplying fresh seafood to the consumer, and has developed a technology that found in the bakery industry. It is based on freezing and defreezing food in a special humid atmosphere, also on small scale. This can be adapted to many different types of food, where it is frozen soon after harvest, transported frozen, and thawed to regain close to their original freshness at the point of sales.

EU policies should ensure optimum utilization of the different grades of fruits and vegetables. Local action is essential and gleaning initiatives should be promoted. Short food chains can work in the EU model.

Awareness raising is not enough to change behaviors in households as it is known from public health policies that there is a huge gap between awareness and action. As regards food waste reduction in households, it is important to know how to foster household

competences and skills: for food preparation without waste one needs management and planning skills, organization (keeping in mind the stock in the fridge), to cook healthy and diversified meals, to use leftovers, and to make meals fit into family members daily agenda and food preferences.

C. FOOD CONSUMPTION

7. Caterers and restaurants. Massimo Pretieri, Pedevilla FAO catering, Italy. They provide catering for a number of big organizations and schools. Food waste is for Pedevilla the un-eaten but edible food, processed food that cannot be served again – because of legal and quality requirements. Pedevilla delivers of 1,000 meals per day at FAO, using the FIFO stock management system. They take into account the weather forecast to decide on the number of meals to prepare, because when it is beautiful weather many people eat out of the office. They work on pre-prepared dishes and a 50% margin is prepared on the same day if a certain dish is below the needed quantity. Some of their customers demand that all dishes are available until the last service – this enhances food waste. At FAO, 1-2% of pasta and rice is wasted. Some types of food products are permitted (by Italian law) to be sent to charity if consumed within 12 hours; therefore they have a collaboration with CitiCibo, a local charity organization.

8. Consumers I. Richard Swannell, Waste and Resources Action Program (WRAP), UK. The initial quantification of food waste in the UK amounted to 8.8 million ton, of which 5.3 could be eaten. Food waste occurs as a result of inadequate food planning, buying, storage, preparation, use. Lifestyle change and behaviour is required to change practices. The Love Food Hate Waste Campaign focuses on 5 key messages: it pays to plan, know your date labels (best before and use by), lovely leftovers, perfect portions – all to save money – 50 GBP per household per month. Strategic partnership with NGOs, communities, local institutions is essential. About 93% of the UK retail sector has signed up to the Courtauld Commitment since 2005 (A voluntary agreement to improve resource efficiency and reducing waste within the UK grocery sector). WRAP tracks the behaviours that they tried to encourage through the campaign. Conclusions: consumers are willing to reduce waste, partnerships are essential, make it as easy as possible for all concerned. Next steps: targeting the hospitality industry, sustainable diets, and working with UNEP, FAO, FUSIONS.

Consumers II. Indrani Thuraisingham – Consumers International. CI implements a global campaign representing 120 countries. They have developed a food safety network. In partnership with WHO, they are campaigning to limit advertisements that target children. Consumers in the emerging middle class e.g. China and India are becoming very important. They recognize the need to assess food waste in developing countries. They also deal with the double burden of waste and obesity on one hand, and malnutrition on the other. At regional level there is a potential for collaboration in sharing good practices. Reasons of food waste are: overbuying, poor storage, over-preparation by restaurants and buffets, social status and culture. In South Korea residents are charged for food waste, Malaysia charges for plate waste in restaurants. Recommendations: action to educate consumers to change their behaviour; promote good practices for consumption, redistribution, and develop better regional knowledge systems on food loss and waste; promote the consumption of local products.

9. Urbanised areas in developing countries. Moez El Shohdy, Egyptian Food Bank. The model of EFB consists of: (i) feeding the needy, (ii) organizing charitable work, (iii) social development, (iv) awareness raising and campaigns. EFB Has developed programmes for volunteers, for the hotels, such as reducing the plate diameter from 43 to 37 cm during

buffets. The Odheya tradition provides mutton for the needy people during the festival of Eid al Adha. The EFB model expanded this concept and now includes a factory for canning, packaging and distribution of meat with vegetables, year around. They Collaborate with qualified NGOs, and 11 food banks in the region. In the UAE they implement a pilot project with different universities for Zero Food Loss.

DISCUSSION FOLLOWING THE PRESENTATIONS – PANEL MEMBERS: *Massimo Pretieri, Pedevilla FAO caterer; Richard Swannell, Sustainable Food Systems Waste and Resources Action Programme (WRAP); Indrani Thuraisingham, Consumers International; Moez El Shohdy, Egyptian Foodbank; Julian Parfitt, Oakdene Hollins; Makiko Taguchi, AGPM FAO.*

Reducing food waste may be one of the least controversial ways to increase the sustainability of the food system. If we prevent food waste, does that mean there will be less food available for the needy through food banks? Are food banks therefore a solution or a diversion of the problem of food waste?

When consumers get relevant information they will change behaviour. Different consumers need different messages to facilitate their behaviour change. Since consumers differ within and between regions, local, customized solutions are therefore essential. Start educating children, if you want behaviour change.

It is important to share good practices and learning between production and consumption countries. Some solutions need adaptation before they can be implemented. For instance, the vacuum seal system delaying ripening for cooking bananas can probably be used in other value chains.

Local authorities and stakeholders (like food councils) should be involved in food waste reduction efforts. The Sustainable Consumption and Production Roundtables, which are organized within the FAO-UNEP Sustainable Food System Programme, is one way of bringing stakeholders together. This is working for instance in South Africa.

Day 2 FOOD LOSS – Wednesday, 11/12/2013

INTRODUCTION

Eugenia Serova, Director of Rural Infrastructure and Agro-Industries Division, FAO, welcomed to the second day of the partnership event. She thanked participants for their active role on the first day, and said she was looking forward to the outcome of day 2's discussions. She introduced the panel and then introduced the presentation by Robert van Otterdijk.

The SAVE FOOD Initiative. Save Food is the brand name of the FAO's Global Initiative on the Food Loss and Waste Reduction. It is not just a campaign, but a regular programme within FAO's Strategic Framework. The Initiative has four pillars, namely (i) Awareness raising, (ii) Partnerships, (iii) Research and policy studies, and (iv) Implementation of projects.

Save Food holds the view that only organisations active in food production, distribution and trade can significantly reduce food loss. FAO and other public and civil society organizations should coordinate, conduct research and support these organisations in identifying and adopting food loss reducing mechanisms into their processes.

FAO has a dual role in the Save Food Initiative:

1. **Secretariat / Coordinator.** The Save Food Initiative provides advice and helps partners connect to identify synergies or build on parallel efforts. It does not force activities, methodologies or strategies upon its members, but rather acts like a broker and an information hub that supports partners in identifying their own solutions.
2. **Implementation partner.** FAO works with partners to reduce post-harvest food losses through normative consultations and field projects. Save Food works with organizations and companies to exchange specific knowledge and experience on food loss and waste reduction. Our vision is that any organisation working with food world-wide joins the Save Food network, and shares with EACH OTHER their work, problems and solutions. Save Food is thus not primarily a FAO partnership, but a partnership between organisations working to reduce food loss and waste.

Further discussions and suggestions on how best to manage the initiative are welcome.

A. SETTING THE STAGE

1. Food losses in developing countries - Kenya case studies

The main issue was to find Critical Loss Points for food losses in four food value chains in Kenya, and suggest feasible solutions. Results for the maize, banana and fish value chains were presented.

In the case of **maize**, the main causes of losses include the leftovers remaining in the field during harvesting and weevil infestation during farm storage. Also, inefficiencies and poor sanitation during informal milling cause about 3.5%. In general the study findings indicate losses of up to 15% as compared to the previously reported value of 30%. The use of proper packaging and transportation helped to reduce losses.

In the case of **banana**, about 11% is caused by a number of causes. This includes poor handling, lack of temperature control, mechanical damage and poor display. The study observed low losses by traders in wholesale, hawkers, roadside vendors, kiosks, and supermarkets.

In the case of **fish**, the main causes of losses include early deaths in the nets and attacks by monitor lizards, which accounts for 22% of the total loss. Lack of ice and proper transportation contribute about 5.5% of the losses, which is mainly in quality.

The study has indicated a need of training and capacity building, involvement of all stakeholders, policy development and establishment of a task force including the government to develop intervention programmes.

2. Socio-economic impact of food loss. Lorenzo Bellu from FAO Economic and Social Development Division. Prevention of losses may cost more than the value of the losses itself. Many of the costs associated with food production are not accounted for in the price, and therefore also not if food is lost. Food Loss also jeopardizes long term food availability. Reducing food losses should be considered in the context of food security, poverty reduction and environmental sustainability, not necessarily as a policy objective in its own right. Appropriate policies can reduce food loss through shifts in food prices and contribute to environmental objectives. Further analyses at local, national and global level are required to assess direct and indirect economic, social and environmental impacts of food loss. These analyses should also assess the costs and benefits of different policy options.

3. Environmental impact of food loss. Mathilde Iweins from Natural Resources Management and Environment Department, FAO. Natural resources (water, land, energy, etc.) are consumed directly and indirectly when producing food. Indirect uses of natural resources include pollution in terms of GHG emissions, fertilizer run-off, landfill leakages, etc. The environmental impact caused by food loss and waste is high. For example if global food loss and waste was a country, it would have been the 3rd largest emitter. Also the volume of water wasted due to food loss and waste is about 250 km³ per year which is approximately 3 times the volume of Lake Geneva (*250 trillion litres*).

The environmental impact occurs all along the food value chain, from growing until after it has been discarded. It has a double negative effect on food security. There is a direct impact on food availability, but secondly also on natural resources. It is therefore important to ensure that food loss and waste is reduced. Alternative solutions such as reuse, recycling and recovering should be considered. Assessments on food loss and waste reduction should include the socio-environmental impacts in order to fully understand the cost and benefit or reduction options. Environmental issues and related social costs (e.g. Public health, pollution, mitigation costs, etc.) must be considered for efficient food loss reduction strategies, as they are now a “hidden” cost borne by the society at large.

B. FOOD PRODUCTION

4. Smallholder food producers: Davide Signa, SmartFish, FAO. The SmartFish project consists of five components, namely: (i) Fisheries Management, (ii) Fisheries Governance, (iii) Monitoring, Control, Surveillance, (iv) Fish Trade, and (v) Food Security. It looks at post-harvest losses in African small scale fisheries. SmartFish ask four key questions: How much is lost? Where is it lost? How is it lost? And why is it lost?

The project shows that small scale fishermen are most affected. It is estimated that quality loss range from 10-60%, and physical losses of up to 100%. Fish losses in Africa occur because of (i) infrastructures and technology gaps, (ii) lack of access to production inputs such as improved processing equipment, ice etc., (iii) lack of knowledge and awareness, (iv) poor hygiene and handling practices, and (v) market deficiencies. SmartFish helped reducing losses

in 3 major steps. Step 1: Understanding the losses. Step 2: Raise awareness about the losses and opportunities for improvements. Step 3: Concrete reduction actions.

Lessons learnt: (i) Losses vary according to season, and regular assessments and monitoring is needed. (ii) Value chain approach: need to look at all critical points: the “from the net to the plate” approach. (iii) Market dynamics influence losses. (iv) Immediate adoption of best practices happens only when financial benefit and profitability is proven. (v) Consumer education is important. (vi) Governments can play a limited, but supportive role. Main changes are implemented by the private sector actors themselves. Among the solutions that the project is implementing: Post-harvest loss assessment training, data transfer on PHL by mobile phone to a central web-database, mobile cinema awareness campaign, and consumer education on fish quality, by for instance posters in marketplaces.

5. Post-harvest technology. Marcos David Ferreira, Brazil Agricultural Research Institute, Embrapa. Reducing mechanical damage to fruits and vegetables is a key factor when developing new technologies for harvesting and for carrying out different post-harvest operations in the field. Some of the techniques developed by Embrapa involve aided harvesting, coating with waxes, antimicrobial packaging, and protection of surfaces. Embrapa has developed courses, website, books and courses for sharing information.

6. SMEs in food processing Food value chain consultant Nerlita M. Manalili. It is important to understand the mechanism for food loss in the small to medium sized enterprises (SMEs). Food losses tend to be low in food processing, but because of the shift to more processed food the total, losses at this segment is increasing. The food manufacturing sector in developing countries is dominated by SMEs and most of them lack capacities to operate efficiently. Food losses occur at different stages, from acquiring raw materials and processing.

An additional complication is that the market for high quality and better packaged products is smaller in developing countries. The most efficient way to reduce food loss and waste in SMEs is following the value chain approach. It should not only focus on saving food but also on the livelihoods of the millions of people who are dependent on SMEs for a living. Strengthening the economic base of developing economies (largely comprised of SMEs) is an important factor in this regard.

DISCUSSION FOLLOWING THE PRESENTATIONS – PANEL MEMBERS: *Davide Signa, SmartFish FAO; Marcos David Ferreira, Brasil Agricultural Research Institute (Embrapa); Nerlita Manalili, Food value chain consultant; Jorge Fonseca, FAO AGS; Diego Naziri, Natural Resources Institute.*

It is important to understand that different commodities in the food system have different challenges when it comes to food loss and waste. A study on losses in cassava and yam value chains in four countries (Nigeria, Ghana, Thailand and Vietnam) found that: (i) Physical losses (amount disappearing from the chain) were found to be low, especially in starch and chips value chains in Thailand and Vietnam, (ii) If the farmers consume cassava themselves, then the losses are lower, (iii) There are small losses under small scale farmers in the poorest countries where small amount is harvested and immediately processed with farmers taking good care of the crop, (iv) Losses during trading, transportation and handling is higher when long routes are involved (v) Losses are larger at the end of the chain and depend on the consumption pattern as well (vi) There is huge capacity in the developing countries to absorb rejected products from industrialised countries. We don't have one right way to do outreach. Sometimes choices are limited for farmers as they don't know what is available.

Milk is a seasonal product in Haiti and the climax of its production is during the rainy season. This is also a season when transporting milk is the most difficult. Milk can spoil within 3 hours if handled incorrectly. A consistent cold chain is needed, but is made more difficult with irregular or missing electricity supply. Solar energy is a possibility but it is under-developed. It is cheaper to package milk in recyclable glass bottles than using disposable cartons, but this requires strict hygienic practices.

All solutions need to be economically viable to be successful. Many presenters have emphasized the value chain process, but potential solutions also need to consider cost. The technology of freezing and de-freezing fish is efficient, but requires electricity. The technology is there and flexible, but the value chain has to adapt it and pay for it. So it is a question of cost and organization. How we coordinate and share information along the value chain and its institutions can be more important than improving technology.

A comment on the SmartFish project – How much of an issue are flies or hygiene problems in the project areas? Vestergaard Frandsen has been working in the same areas and has developed some tools to address this problem using UV stable and insecticide treated screens to improve hygiene through reducing flies.

It is important to consider that many food systems do not include the food insecure. If one third of the food is lost and 1 billion people go hungry, it will still end up by being lost if we cannot reach those hungry people. The food and agricultural industry can improve efficiency and reduce cost so that more people can access food. Food that is considered cheap by some indicators is still expensive for some communities and families. It is important to consider sustainable partnerships and remember that project beneficiaries also are important partners.

The growing demand for processed food by the emerging middle class in developing will become a big environmental challenge. The processing industry must meet this demand in a sustainable way. How can the private sector be encouraged to take responsibility of technological solutions?

We should develop goals, roles and tasks for the various actors in the food value chain. It is important that plans are translated into action.

It is important to understand the situation of the farmers. How can we take advantage of what is already there and adapt it to our needs? We need to analyze the situation in order to understand the problem along the value chain. The solution needs to be participatory also as there are no solutions which fit all situations.

The case of cassava in Nigeria, in which six organizations (IITA, FAO, IFAD, UNIDO, GIZ, NRI) are active and to a large extent simultaneously, demonstrates the need for a good coordination mechanism as Save Food wants to provide, to create synergy and collaboration.

We are particularly interested in primary production and the results from the field studies of food losses in Africa and Asia and would like to interact somehow in the work being carried out in primary production.

C. FOOD SUPPLY CHAINS

7. Food packaging and logistics. Erik Høgh-Sørensen, Maersk Container Industry. Maersk has tried to reduce food loss and waste by making the Controlled Atmosphere

reefers are available to several small holders to share. The company is willing to explore this further with SAVE FOOD partners. Our CA reefers also extend product life further reducing food loss.

Maersk believes in addressing problems emerging in the field, as these can be tackled with current knowledge (e.g. harvest index research development) and technology (e.g. CA reefers offered by the company). The involvement of private corporations with innovative technology would not be feasible if there is no critical mass, there is a need to group small holders to access this type of technology. The company seeks for groups addressing export market.

8. The context of food supply chains and markets. Venugopal Chintada, Sathguru Consultants. We have worked on increasing the use of information and communication technology (ICT) in agricultural extension systems. We found ICT enabled market information and extension systems to reach farmers at minimal costs. As a result, it improved the efficiency of the supply chains. It is important to integrate efforts and focus on “value addition” and “fast movement” of products. The approach reduced losses from up to 18% to below 8%.

Processing technology and market access also needs to be improved. This requires government and civil society to advise on and establish appropriate investment regulations, which rewards food loss and waste reducing initiatives.

9. Enabling environment/investment in developing countries. Kofi Essuman, International Trade Centre. We have found three important factors in creating an enabling environment for Small and Medium-sized enterprises to reduce food loss and waste: (i) Support from government through different entities, (ii) Support from trade institutions, and (iii) Support from mobile technology companies. This triangle allows the implementation of training, increased investment on needed infrastructure along the supply chain and expansion (or creation) of connectivity of producer with the other actors in the chain.

The approach based on the international trading scheme promoted by the International Trade Centre has worked well in reducing food losses in several cases. The inclusions of a strong component on information and communication technology combined with well-directed governmental support were fundamental to attract investment.

DISCUSSION FOLLOWING THE PRESENTATIONS – PANEL MEMBERS: Erik Høgh-Sørensen, Maersk Container Industry; Luciana Pellegrino, Brazilian Association of Packaging and World Packaging Organization, Kofi Essuman, International Trade Centre; Joseph Mpagalile, FAO AGS.

Smallholder farmers know what they need. They will tell you why new technologies or food loss and waste reducing activities are not adopted. It is important to take into account the viability of investment at local value chain level, not at global level. A 500 dollar investment may be cheap in one location, but too expensive in another.

There is a strong need for consistent quality management and monitoring along the value chain. Perhaps it is an idea to develop a quality tool for food supply chains that analysis (the risk of) losses, and identifies critical control points, the so-called LACCP.

The Save Food ideals serve to emphasize the positive role that packaging plays in preventing food from becoming waste; be it through extending the shelf-life of food, better protection of

the contents and the nutritional value, or through convenient portioning to reduce food loss and waste.

A. SAVE FOOD INITIATIVE: HOW SHOULD IT WORK?

a. Awareness raising and communication, including information sharing

Ib Knutsen, Communication and Partnerships Consultant, Rural Infrastructure and Agro-Industries Division, FAO. The SAVE FOOD website and the newsletter are used actively, but are there better ways of information exchange? What are the specific information needs of different partners, and how can they contribute to the information flow in the initiative?

Awareness raising

- Farmers are exposed to so many social initiatives, and most do not reach them as they are too generic. The best information is targeted, specific, short, and with concrete examples. It is better to work with local initiatives and associations that already work with farmers.
- The information needs on the website to be adjusted to reach not just the administrative components of the different actors but those that are directly involved with the losses (e.g. farmers).
- Language barriers are a big reason for the information gap.
- The newsletter is heavy on text; it could be more interactive. Information needs to be very short, targeted and specific.
- We find the newsletter useful to see what others do and to show our capabilities in the Save Food context.
- In developing countries it is often difficult to access information.
- Put significant efforts in awareness raising in high visibility events e.g., use events like football World Cup to raise awareness on losses and waste, also local high profile personalities.
- Make a user-friendly website, get 'multipliers', and follow a regional approach. Actually we already have regional sites in Asia-Pacific and North-Africa/Near East.
- Save Food should be an online portal with information that promotes discussion and information sharing.
- We need support from the initiative to disseminate some new packaging technologies, since new packaging developments related to foodstuffs are always slowly accepted by the consumer. We believe that the initiative could highlight our commitment to food loss and waste reduction to a wider European audience.
- I think that it is necessary to increase consciousness about losses and food waste, on a similar way that is done for other resources, such as water, or non-food waste.
- The need for information is critical. Sometimes specific information needed, and other times generic solutions are enough. We should share best practices extensively.
- I would like to see what other public and private organisations are doing to reduce food loss and waste.

Communication

- Save Food can develop and publish with partners booklets on how consumers, companies and farmers can promote the reduction of food losses through planning, storage and packaging.
- It is important to keep a database of key information on contacts and institutes. Each player can reach out to solve an issue. [Editors' note: Registered Save Food partners already have access to a database with information on all contacts and projects of the initiative.

Information sharing

- A SAVE FOOD platform is good for information exchange, but cannot replace physical meetings. Panel discussions useful, intensive info exchange between specific sub groups of 5-6 people best.
- It is also good to have an annual meeting to discuss what is happening and what needs to be done. It is also good to have the chance to meet under the initiative framework at the Interpack Fair.
- We think that the initiative could develop new tools to stimulate networking within the food supply chain, maybe through the organization of specific workshops. For example, in our sector, it would be helpful to bring together the food industry, the retail and packaging manufacturers sectors to see what can be done and next steps.

Branding

- SAVE FOOD should strengthen its branding, so that when you see the SAVE FOOD logo, it is immediately associated with reducing food loss and waste. Possibly this could be expanded to a certification for partners in the initiative where they could signal their adherence to reducing food loss and waste. This could promote a culture of change.
- Awareness of SAVE FOOD should be the highest priority. It should be like brand recognition, a logo that gets recognized and can be used by anyone involved in the initiative. [Editor's note: Save Food has a logo which partners may use].
- It would be good to use of something like a logo for seeing that a business e. g. Restaurant is active on FLW.
- Is SAVE FOOD a portal or a vehicle to change practices? For instance Think.Eat.Save is a campaign to change behaviour and it now shows up everywhere when food waste reduction is discussed.

b. Structure and mechanism for partnerships, collaboration and coordination

Structure

- Through the network we aim to connect with different partners working on food waste issues. From the stakeholders we would like to hear ideas on relevant knowledge questions concerning waste and food security and their eventual role in executing them within the Knowledge Platform.
- SAVE FOOD should take care to be transparent in its outreach and partnership affairs, so that more organisations can engage. Otherwise it may look like a closed shop for companies who want to look good with FAO.
- I would like SAVE FOOD to establish a community of learning. We only find out here what USAID and UNEP are doing in this area. Would be good to find a different way of sharing this information. (FAO is establishing a community of practice in a joint project with WFP and IFAD.)

Mechanisms

- Our ambition is to contribute with analyses of the dynamics of the food supply chain and particularly the implications for water, energy, land and the environment. Through the internet and our wide contact network, we can contribute to outreach of results and policy dialogue.
- Joining hands with SAVE FOOD initiative will help Annakshetra further promote the concept of preventing food wastage and generate awareness among a larger section of the society.
- We need a common approach and not have conflicting methods or views.
- We should develop action-based approaches.
- We should develop updates on waste reduction strategies and technologies that can be used in low-income countries, emerging economies and/or in Europe;

- We should measure savings made, enterprises created and innovations arising from fruit value chains;
- Save Food should build case studies and benchmark listed on a public catalogue.
- We should promote some challenges for packaging researches institutes to come out with packaging solutions for specific products and situations.
- We find shared studies related to food waste and food loss helpful, which data can be used as a reference in our own studies and can also inspire our new food packaging developments.
- E-solutions should be investigated for effective implementation of food loss and waste reduction.
- International cooperation should target well-studied needs to avoid multiple efforts on the same topic.

Partnerships

- Save Food should connect with existing networks to multiply efforts. Technical users are different from end users.
- We need to bring together all the ongoing initiatives. Different activities and groups need to talk to each other.
- There is a need for coordination and effective communication of available solutions.
- A neutral but credible partner for this kind of info/best practices is needed, preferably international. Key actor to bring people together.
- We should not try to reinvent the wheel with SAVE FOOD. Use it to learn from the experience of others and share that information.

Collaboration

- UN agencies can play a facilitative role in linking different stakeholders. We can learn from other multi-partner stakeholders such as Sustainable Livestock, perhaps learn and use these other examples.
- Small producers should be supported through their representative organisations. Private sector organisations active on the ground will need to work with farmer's organizations and not with individual producers.
- It is important to identify potential collaborators across continents as sources of credible and current data.
- Up to now most of the grouping of farmers has been done by either government or international cooperation institutions. Hybrid approaches or strict private sector leadership may be interesting to explore.
- Integration of all actors in the value chain is crucial, as very few cases consist of vertically integrated operations.
- Early engagement and fostering with stakeholders is needed. Focus on availability, accessibility and affordability when project development. The benefit for the stakeholders should be clarified. (E.g. why sustainability is a good business).
- There is an obvious role NGOs can play in raising awareness and influence policy development on food loss and waste reduction.
- Private sector is now offering "integrated solutions" as part of their services. Transport and processing companies are now looking into solutions further up and down the value chain and could be a possibility for financing research. Save Food can facilitate connections, but it needs local structure (e.g. government, focal point, or direct commitment of producers and private industry).

Coordination

- Country coordination is essential for the expansion of Save Food. The Secretariat could have those focal points as satellite communicators.

- Save Food can also be also useful for national initiatives such as the USDA Food Waste Challenge.
- We need to understand more about people’s culture for consumption and waste.

c. Resource mobilization and utilization (financial, human, facilities)

- The Rockefeller Foundation is a good example for how they study the areas they want to support. In the next years they will build knowledge on food losses and waste, and Save Food can be an important element in this. There is a lot of interest in value chain finance and technology development.
- Private funding and support to Save Food can be direct or indirect. The use will depend on where the focus of the investment is. The solution for food losses and waste reduction is not “one size fits all”. Specific programmes will need to be developed, should funding not go directly to the Save Food initiative.
- Private funding for Save Food may be threatened by lack of transparency, fear for bureaucracy, oversight and cost –control. Many corporations would hesitate to put funds in a “Secretariat”, and possibly look for ways of transferring funds directly to the field.
- Smallholders need to be organised in cooperatives or common-interest groups to attract micro finances. Critical mass is needed.
- Early engagement, transparency and communication with potential stakeholders are crucial for the success of any project.
- With regard to potential ‘in-kind’ donations: develop a catalogue of available (2nd-hand) equipment in the world. Make use of equipment and facilities that are lying idle in the countries.
- Proper awareness raising, the ‘solutions appeal’ and collaboration already mobilize resources.
- Make the business-case, ensure effective delivery, and ensure that the resources are demand driven.
- Seek to establish and secure a model that is self-financing beyond its initial three-year development.

SECTOR POTENTIAL

Food waste

Caterers / Restaurants

- Good planning and knowledge of customers needed. Detailed levels of planning and flexibility needed. On site cooking can be very efficient.
- Hotels can be linked to charities via food banks.
- Change of size of plates from 32 to 27 cm. More effective if done through hotel associations.
- Is it possible to offer different portion sizes, and charge for leftovers? Weight basis and size for portions?
- What can't be used should be redistributed, but food safety must be respected.
- Surplus food can be canned so that it is available all year round.

Consumers

- There is a need for educating consumers, as they respond to good quality information. This needs to be context dependent.
- There is a shared responsibility for portion size – it's also down to choices by consumers.
- Many do not realize the level of losses they are incurring.
- It pays to plan, good storage, use leftovers, perfect portions.
- Consumer's organizations highlight the huge growth of income, linked to increased food consumption – issue of double burden for the developing countries.
- Many traditional events have a custom for conspicuous consumption, for instance weddings and Eid.
- Lack of respect for food. For instance all you can eat buffets where some may fill their plate but don't finish. Plate sizes an important element also here.

Retailers

- Poor knowledge about sell by and expiry dates on product packaging. Many throw away good food "just to be sure".
- Oversize proportions (2 for 1) are attractive but a major challenge for loss/waste reduction. Packaging offering a minimum of four apples when the consumer only wants one can also be a problem.
- Sustainable consumption should be promoted.
- Lifecycle assessments are a very useful tool.
- Perhaps stress "buy local" rather than try to always to extend shelf life. This will also support local economies.
- There is a huge difference in consumer behaviour in developed and developing countries. Why also is Latin America so poorly represented at this meeting – where are the policy makers from our countries? Need to put industry, government and consumers together. *[Editorial comment: This was a Save Food partnership meeting for private and civil society organisations].*
- It takes many years to influence and develop good food habits – even 25 years.
- UK experience indicates that changes can be made in a short time, a range of portion sizes in retail, restaurants and multiple outlets can provide a big reduction in food losses.
- We need to educate consumers on the environmental cost of food losses and waste, to protect the next generation.
- A key motivation to incite behavioural change is to show how reducing food waste save you money. WRAP estimates UK consumers can save 50 Pounds per month by reducing food waste.

- Voluntary agreement to improve packaging to reduce waste. Clear date labels with storage and product information important to communicate better with customers.
- Need for information is critical. Sometimes its specific but also generic solutions, e.g., fruit, one of the options is a vacuum sealing systems to extend the shelf life (and hence market access). Need to share best practices. We need more information on solutions for tropical fruits. A tropical fruits portal for instance has been established and can be linked with Save Food.

Government

- A regional level initiative would be very useful due to different consumption patterns.
- Would be useful to have more control of food advertisements (high fat, sugar and salt level).
- South Korea charging consumers for food waste collected by local authorities, also charging for food waste after buffet.

Organisations / NGOs

- Food banks can consider the effectiveness of having its own packaging and input farms, as in the example of the Egyptian Foodbank.
- Youth and universities should be mobilised to analyze and develop proposals for food loss reduction.
- A neutral but credible partner for this kind of info/best practices is needed, preferably international. Key actor to bring people together. Like Save Food.
- Local solutions are welcome but this is a global problem. A comprehensive vision is needed to effectively address this issue. It's both about lack of food but oversupply of food / over consumption is also a problem.
- We need to know where the food waste is – baselines studies are essential.

Food loss

Transporters, packaging industry, traders

- Food loss and waste reduction awareness should be spread among staff and temporary / seasonal workers.
- The entire supply chain needs to be aware of actions that influence food loss and waste in suppliers and customers (up and down stream). Information and Communication Technology (ICT) development and sharing should help information exchange.
- Quality and shape standards should be seen as opportunities for new markets, such as the carrot sticks developed from previously rejected carrots.

Government

- Provide extension services. Provision of electrical power in rural areas.

Summary and Way Forward

Food loss and waste cannot be reduced to zero. It is important to consider that food loss and waste reduction is a mechanism to improve food security, poverty alleviation, economic development, environmental health, and interventions should focus on the largest possible gains.

It is easy to say that food losses when saved could feed all the hungry people on earth, but balancing food insecurity with food loss and waste recovery needs changes in our approach to food production, processing, distribution and trade. Food loss and waste reduction should be a natural part in national, regional and global strategies for food security.

The Save Food Initiative has a comprehensive and inclusive approach, but it is growing faster than the current management structure and funding basis can keep up with. It is important that a workable management structure and basic funding is established, possibly the form of a Secretariat at FAO and a Steering Committee.

Strategies to translate the vision of zero loss and waste of food into concrete action needs to be further developed. It is important to expand the role of Save Food at regional levels, which can serve as information hubs to reduce food loss and waste at national level.

Annexes:

1. Agenda
2. Participant's list
3. Evaluation

Partnership Event

10-11 December 2013 – FAO Headquarters, Rome, Italy

Participants

Organizations and companies *active in food loss or waste reduction*: private companies and associations from industry and agriculture, national and international institutions, NGOs and CSOs, development organizations

Objectives

- Consensus on the collaboration in the Save Food Initiative and the roles that different partners (can) play.
- Strengthening and expanding the Save Food partnership network.

Location

10 December, Sheikh Zayed Centre, Building A, Ground Floor, FAO HQ

11 December, Green Room, Building A, 1st Floor, FAO HQ

GLOBAL INITIATIVE ON FOOD LOSS AND WASTE REDUCTION

Agenda - Day 1 - Food Waste



| | |
|--------|---|
| 08: 30 | Registration |
| 09: 00 | Introduction Moderator: <i>Eugenia Serova, Dir., Rural Infrastructure and Agro-Industries Division, FAO</i> |
| 5' | - Opening address <i>Daniel Gustafson, Deputy Director-General - Operations, FAO</i> |
| 10' | - Opening address: FAO Strategy for Partnerships <i>Marcela Villarreal, Director, Office of Communication, Partnerships and Advocacy, FAO</i> |
| 10' | - Key-note address <i>Bernd Jablonowski, Director, Interpack, Messe Düsseldorf</i> |
| 09: 25 | A. Setting the stage: Moderator: <i>Eugenia Serova, Dir., Rural Infrastructure and Agro-Industries Division, FAO</i> |
| 10' | 1. Definition of food loss and waste <i>Robert van Otterdijk, Agro-Industries Officer, AGS, FAO</i> |
| 15' | 2. Socio-economic impact of food waste <i>Yuca Waarts, Snr Researcher WUR-Agric Economic Institute</i> |
| 15' | 3. Environmental impact of food waste <i>Clément Tostivint, Environmental Expert, Bio Intelligence Service</i> |
| 10:05 | Break (20') |
| 10: 25 | B. Food production and trade, introduction of topics Moderator: <i>Robert van Otterdijk, FAO</i> |
| 20' | 4. Farmers and over-production <i>Maeve Whyte, National Farmers Union.</i> |
| 20' | 5. Food processing industry, food packaging <i>Graham Houlder, Flexible Packaging Europe / Sloop Consulting.</i> |
| 20' | 6. Retailers <i>Bernd Hallier, European Retail Academy</i> |
| 65' | Panel discussion with the audience: <i>Maeve Whyte, National Farmers Union; Graham Houlder, FlexPack Europe / Sloop Consulting; Bernd Hallier, European Retail Academy; Selina Juul, Stop Wasting Food; Vanessa Delmer, Packaging, Transport and Logistics Research Center; Matteo Guidi, Lastminutemarket; Clementine O'Connor, Bio Intelligence Service</i> <ul style="list-style-type: none"> • Technical questions on the topics introduced • Finding joint activities and working together • What can be done, where to make impact • Required research and resources |
| 12: 30 | Lunch Break (60') |
| 13: 30 | C. Food consumption, introduction of topics Moderator: <i>James Lomax, UNEP</i> |
| 20' | 7. Caterers and restaurants <i>Aurora Grassi, Manager, Pedevilla FAO caterer</i> |
| 20' | 8. Consumers <i>Richard Swannell, Director Sus. Food Systems, Waste & Resources Action Pgm (WRAP), Indrani Thuraisingham, Consumers International</i> |
| 20' | 9. Urbanized areas in developing countries <i>Moez El Shohdy, Egyptian Foodbank</i> |
| 70' | Panel discussion with the audience: <i>Aurora Grassi, Manager Pedevilla FAO caterer; Richard Swannell, Director Sus. Food Systems Waste & Resources Action Pgm (WRAP); Indrani Thuraisingham, Consumers International; Moez El Shohdy, Egyptian Foodbank; Julian Parfitt, Oakdene Hollins; Makiko Taguchi, AGPM FAO.</i> <ul style="list-style-type: none"> • Technical questions on the topics introduced • Finding joint activities and working together • What can be done, where to make impact • Required research and resources |
| 15:40 | Break (20') |
| 16: 00 | D. SAVE FOOD Initiative: how should it work? Plenary session Part 1: Moderator: <i>Divine Njie, AGS, FAO</i> Introduction of topics and question to panel: |
| 40' | 10. Awareness raising and communication, including information sharing: <i>Ib Knutsen, AGS FAO;</i> |
| 20' | 11. Structure and mechanism for partnerships, collaboration and coordination, <i>Annamaria Pastore, OPC FAO</i> <i>Panellists: Rosana Perrotti, Plataforma Sinergia; Georgina Zivanovic, Vestergaard-Frandsen; Maeve Whyte, NFU; Emiko Onoki, Foodloss Challenge.</i> |
| 17: 00 | E. Summary and Way Forward – Food Waste <i>Camelia Bucatariu, AGS, FAO</i> |
| 17:30 | Cocktail Reception |

GLOBAL INITIATIVE ON FOOD LOSS AND WASTE REDUCTION

Agenda - Day 2 - Food Loss



| | |
|--------|---|
| 08: 30 | Registration |
| 09: 00 | Introduction Moderator: <i>Eugenia Serova, Director, Rural Infrastructure and Agro-Industries Division, FAO</i> |
| 10' | - Key-note address – Food loss studies in Kenya <i>Robert van Otterdijk, Agro-Industries Officer, FAO</i> |
| 09: 10 | A. Setting the stage: Moderator: <i>Eugenia Serova, Dir, Rural Infrastructure and Agro-Industries Division, FAO</i> |
| 10' | 1. Scope of the FAO programme on FLW <i>Robert van Otterdijk, Agro-Industries Officer, AGS, FAO</i> |
| 15' | 2. Socio-economic impact of food loss <i>Lorenzo Bellu, Policy Officer, Agri Dev Eco Div, FAO</i> |
| 15' | 3. Environmental impact of food loss <i>Mathilde Iweins, Project Officer, Environment and Sustainable Development, NRD, FAO</i> |
| 09:50 | Break (20') |
| 10: 10 | B. Food production, introduction of topics Moderator: <i>Wafaa El-Khoury, IFAD</i> |
| 20' | 4. Smallholder food producers <i>Davide Signa, SmartFish, FAO</i> |
| 20' | 5. Postharvest technology <i>Marcos David Ferreira, Brasil Agricultural Research Institute, Embrapa</i> |
| 20' | 6. SMEs in food processing <i>Nerlita Manalili, Researcher, Author of Packaging solutions for Dev World</i> |
| 70' | Panel discussion with the audience: <i>Davide Signa, SmartFish FAO; Marcos David Ferreira, Brasil Agricultural Research Institute Embrapa; Nerlita Manalili, Researcher Author of Packaging solutions for Dev World; Jorge Fonseca, FAO AGS; Diego Naziri, Natural Resources Institute.</i> <ul style="list-style-type: none"> • Technical questions on the topics introduced • Finding joint activities and working together • What can be done, where to make impact • Required research and resources |
| 12: 20 | Lunch Break |
| 13: 20 | C. Food supply chains, introduction of topics Moderator: <i>Adrian van der Knaap, WFP</i> |
| 20' | 7. Food packaging and logistics <i>Erik Hogh-Sorensen, Maersk Container Industry</i> |
| 20' | 8. The context of food supply chains and markets <i>Venugopal Chintada, Sathguru Consultants</i> |
| 20' | 9. Enabling environment / investment in developing countries <i>Kofi Essuman, International Trade Centre</i> |
| 70' | Panel discussion with the audience: <i>Erik Hogh-Sorensen, Maersk Container Industry; Luciana Pellegrino, Brazilian Association of Packaging and World Packaging Organisation, Kofi Essuman, International Trade Centre; Joseph Mpagalile, FAO AGS.</i> <ul style="list-style-type: none"> • Technical questions on the topics introduced • Finding joint activities and working together • What can be done, where to make impact • Required research and resources |
| 15:30 | Break (20') |
| 15: 50 | D. SAVE FOOD Initiative: how should it work? Plenary session Part 2: Moderator: <i>Divine Njie, AGS FAO</i> |
| | Introduction of topics and question to panel: |
| 20' | 10. Structure and mechanism for partnerships, collaboration and coordination, <i>Annamaria Pastore, OPC FAO</i> |
| 40' | 11. Resource mobilization and utilization (financial, human, facilities): <i>Alexander Jones, TCSR FAO.</i> Panellists: <i>James Lomax, UNEP; Chukwudike Benson, Society Against Poverty and Hunger; Anthony Bennett, AGS FAO; Anne Mbaabu, AGRA; Mamadou Biteye, Rockefeller Foundation; Heike Ostermann, GIZ.</i> |
| 16: 50 | E. Summary and Way Forward – Food Loss <i>Robert van Otterdijk, AGS, FAO</i> |
| 17: 20 | Closure Moderator: <i>Divine Njie, AGS, FAO</i> |
| 10' | - Closing address <i>Árni M. Mathiesen, Assistant Director-General, Fisheries and Aquaculture Department, FAO</i> |

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***Participant's evaluation of the Save Food Partnership Event
10 – 11 December 2013***

The Save Food partnership event was well received overall. Participants answered questions on their background, their opinion on the content of both days as well as on the organisation. Finally they were asked if they had any ideas to contribute for improvement.

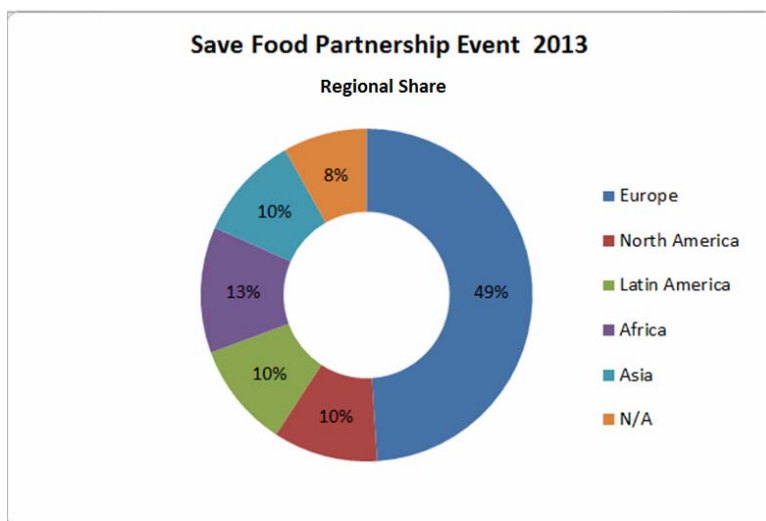
Universe

Survey date: 11 December 2013
Dates evaluated: 10 – 11 December 2013
Surveys: 49

The event took place on 10 -11th December 2013, the present evaluation shows the results from 49 surveys that has been recollected from the meeting audience.

Regional share

The event has representation from world regions; majority of recollected surveys came from Europe representing near to the middle of the audience. Africa had 13% of survey participation, while regions as North America, Latin America, and Asia represented each one the 10% opinion.



Sectors participation

The Research sector was the leader on committed the survey representing the 31% of the total surveys, followed by NGOs and the other sectors as 3 surveys that mentioned that are from FAO and one from UNEP. Whereas, government and private sector represented 6% of the opinion. There no surveys from Associations.



Summary

The responders generally gave positive feedback, highlighting the relevance of the presentations and content. While the event generally kept the time-frames, some responders requested moderators to be even stricter in the future. Many requested a clearer direction or “next steps” by the meeting, possibly developed in a more interactive meeting format, with working groups contributing to the different topics. The frequent breaks were mentioned as an excellent opportunity to network.

While many raised the issue of more interaction, 8 (D1) and 11 (D2) people gave the maximum score (5) to the question of how interactive they thought the sessions were. The question averaged 3.8 and 3.7 respectively.

On Day one was dedicated to the dialogue on *food waste*, and responses are slightly more positive than for day 2. Several participants also directly state that the Day 1 meeting room Sheikh Zayed Centre had both better visual and audio qualities than the Day 2 meeting room of the Green Room, contributing to a better atmosphere on day 1.

The responders felt that the meeting was well organised.



Overall Event Evaluation

The average score for day 1 was 3.8 (of 5), and 3.7 on day 2.

Some appreciations regarding Day 1 Food waste and 2 Food loss

The majority of the suggestions are asking to promote more interactive spaces where the participants can be involved, highlighting the meeting breaks as a particular good opportunity to exchange information. Generally, day 1 is seen as more interactive than day 2.

Also another key fact that the surveys shown is the interest on promote workshops focus on specific themes.

The 5 most critical participants from 1 private company, 1 research, 1 NGO and 2 other, respectively, all gave the event an overall rating of 3 (of 5). They tended to be overall in the middle, averaging a score of 3.5, with 2.6 the lowest score for relevance of day 2, and 4.2 the highest score for procedures during arrival and registration. They also liked (relatively speaking) the presentations on day one (3.75), and the discussions on day two (3.6). From their comments, it appears they miss more interaction, and a clearer output from the meeting. It is a good sign that the most negative responses are 3 out of 5 (or a 60% score), which is still marginally positive. It is also a plus that their organisational background is so varied. Hence it is a sign that no particular group was left out.

The 13 most positive participants from 1 private company, 2 NGOs, 4 research, 1 government, 5 other, all gave the event an overall rating of 5. They tended to be generally very positive, with the highest score of 4.8 for the plenary discussions during day 1, and lowest score 4.4 for presentations of day 2 / arrival and registration procedures. From their comments, it appears they miss working groups and concrete actions to reduce food loss and waste.

Day 1 – Good

- Enjoyed PPT from National Farmers Union (Survey No. 2)
- The discussion (Survey No. 3)
- James Lomax (UNEP) was a well prepared moderator, and Divine Njie, efforts to keep speakers on messages was laudable (Survey No. 4)
- Framing of the problem of waste strong (Survey No. 13)
- Exchange information and practice among plenary and all participant (Survey No. 14)
- Setting the stage (Survey No. 15)
- Very interactive discussions (Survey No. 17)
- Opportunity to share concern (Survey No. 18)
- The discussions were good. (Survey No.19)
- Standardization of definitions Research based data (Survey No. 24)
- Agenda was O.K and event has stated successfully (Survey No. 25)
- The possibility people expressed on taking the discussion forward into workshops (Survey No. 26)
- C.9 - Urbanized areas in developing counties good (Survey No. 35)
- The liberty the ownership displayed (Survey No. 37)
- Would like to receive case studies and examples from Ms. Whyte and Mr. Houlder (Survey No. 41)
- LCA and environmental impact on food waste (Survey No. 41)
- Liked very good focused content (Survey No. 44)

Day 1 - To improve

- Would like more private companies included and producers themselves to have representation of all the chain. Include a workshop on something more interactive. (Survey No. 30, Private Sector)
- Benefit from mort interaction (Survey No. 44)
- In general a guiding line on how Save Food can bring so many stakeholders of different fields and scale of action to share the knowledge gained through the initiative share the knowledge gained through the initiative and provide guidance of where and with whom to collaborate for pointed out action in specific. (Survey No. 46)

Day 2 – Good

- Interesting on learn about economic dimension a food PPT on environmental impact very interesting (Survey No. 2)
- Resource mobilization (Survey No. 15)
- Clear outcomes of discussions (Survey No. 17)
- Focusing on economic and environmental aspects (Survey No. 22)
- It was first event for me and I enjoyed (Survey No. 25)
- On-line PPT hard to follow, although it seemed very good! (Survey No. 26)
- B5 : Post harvest technology good (Survey No. 35)
- Good Maersk: Introduction, Mr. Bellu’s intervention (Survey No. 41)
- Economical view in some presentations (Survey No. 47)
- I liked the different alternatives to prevent and/or solve the problem of food losses and waste (Survey No. 49)

Day 02 - To improve

- Morning presentations were confusing (Survey No. 4)
- Would have liked more SME exchanges (Survey No. 13)
- Given more care for the role of small farmer (Survey No. 14)
- It's better separating discussions on strategies to reduce food loss from those on food waste (Survey No. 19)
- On-line PPT hard to follow, although it seemed very good! (Survey No. 26)
- Mr. Davide Signa presentation came across as very offensive. Working with poor fishermen is very challenging, for that is important to understand their context. Not to present then as stupid or lacking of imagination. (Survey No. 36)
- To improve presentation 5 (*B5: Post-harvest technology, Marcos David Ferreira, Embrapa*) and 6 (*SMEs in food processing Nerlita Manalili*) (Survey No. 41)
- Benefit from more interaction (Survey No. 44)
- Low moderation when speakers were taking too much time in their presentations. It's correct and good for everybody when moderator asks politely 'to wrap up' (Survey No. 46)

Event Organization

The Event organization obtained a good participants feedback, measuring 4 items: The quality of the information that the participant received before the meeting; the procedures during the arrival and registration at FAO, the timeframes and panel format of the event and lastly a general sounding asked to participants the event value, that obtains a score of 4.1.



Particularly where found some opinions related to the first organizational question; where has been evidenced these items:

Good:

- The availability of topics on a pen drive (Survey No. 3)
- Team work of FAO Staff and their ability to help the participant (Survey No.14)
- Quick responses on all issues. Agenda circulation, etc. (Survey No. 18)
- Good communication and updates (Survey No. 19)

- Invest win- win partnership (Survey No. 24)
- Save Food initiatives event organized successfully (Survey No. 25)
- Attention by Ms. Drummond and Ib Knutsen (Survey No. 26)
- Swift reply to email messages (Survey No. 32)
- Very helpful and clear (Survey No. 37)
- Very well organized, a lot of data and contacts available thanks!! (Survey No. 30)

To improve:

- More interaction (Survey No. 28)
- More sure the location of bathrooms is communicated to the participants (Survey No. 41).

Was there something you particular liked or disliked about the organization of the meeting?

Liked

- Some breakouts into smaller/focused discussions may be useful and more effective (Survey No. 5)
- Logistic information (Survey No. 14)
- Multi stakeholder involvement (Survey No. 18)
- I like too much of the organization. Congratulations. (Survey No. 22)
- Flow of information before meeting and sharing list of participants before the event (Survey No. 32)
- Very well organized (Survey No. 30)
- My name was not in the list they have, although it was in the list that I received (Survey No. 43)
- How interactive all facilitators and organizers were. A very good atmosphere was created. For networking: the good coffee breaks and lunch (Survey No. 46)
- Disliked
- Participants predominately from Europe/ US dislike (Survey No. 15)
- Breakouts, getting all agreed on the action needed (Survey No. 44)
- On the timeframes and panel format be better time keeping (Survey No. 44)

Participant's comments to improve Save Food initiative

Good

- I also think that it would have been beneficial for the discussion organizing working group raised on specific topics and/or local provenience. (Survey No. 3)
- The value of bringing this group of people together to interact in person was higher than the value of the planned content additional opportunities for interaction would be a strong change. (Survey No. 4)
- Great networking opportunity, Ib was really helpful, Dive Njie is a very good moderator and do the print (Asks right questions) (Survey No. 20)
- I would like to be committed with this subject even more. Please maintain in touch with attendees. 5519996065285 (Survey No. 22)
- Congratulations for the event (Survey No. 24)
- This meeting is successful and historic, congratulations to FAO, which you properly the best of luck from Nigeria (Survey No. 29)

- This was a great platform to set the scene. Next is the implementation to follow ups to put partnerships to use. AGRA is happy to be a collaborator of above studies experiences in this area. (Survey No. 30)
- It was very important for me to let time for the discussions, some great ideas results from these discussions. (Survey No. 38)
- A very grateful event! Good atmosphere! (Survey No. 40)
- Thanks for giving the participants together (Survey No. 41)
- Thank you for the very invigorating conference and mix of experts. (Survey No. 46. Alejandro Rodarte. Food Science Consultant and project manager arodcas@yahoo.com)

Suggestions

- Some missing topics on the discussion:
 - The role of public Institutions in prevention Food waste and losses
 - Setting up Food waste and losses prevention programs at national level
 - Food left in field due to low prices imposed set by retailers
 - Concrete actions to prevent food waste in developed countries
 - The role of the companies (mainly multinational companies) as part of the problem not only of the solution) (Survey No. 9)
- Whatever discussed on the 1st day was not brought forward in the last session. Concentration was on food loss and food waste was forgotten (Survey No. 15)
- Would like to partner with this initiative in future knowledge sharing is quite useful. (Survey No. 18)
- Maybe the presenters should not try to market their products and present practical solutions of what they are developing on the ground (Survey No. 19)
- Have more social interaction between delegates and breakers, fun social activities. Allow each member to give a two minute presentations. So we learn about what everyone is doing. Brainstorming session from the audience. (Survey No. 23)
- Sometimes people feel more confident in small groups and feel committed, therefore they provides more inputs, however it takes a lot of time so maybe the workshops might be an idea for further meetings, not necessarily this one. I would like to take this into consideration: the relation between UNDP and FAO and the food waste/loss issue might need to be clarified. I come from an engineering background and structure is vital for me. At this point I am a bit confused which Agency/Program is the leader or referent. I would say UNDP is in a much more global perspective and should embrace FAO's initiative, as the specialist in food topics. (Survey No. 26)
- Maybe the workshops can be great (Survey No. 27)
- Too few non FAO employers in the panels. University and Educational Institutions should be mobilized in the Save Food initiative. (Survey No. 31)
- Enchaining and practical suggestion came out of two day initiative. Need to have greater involvement of partners into developing country backgrounds who bring both developing country/emergencies economies and developed issues. Commendable also is approach of audience engagement thought out and not restructuring discussions to panellist only. (Survey No. 32)
- More information was needed on how the partnership is work, how we can strengthen that, how we can work at the local level in our counties (Survey No. 33)
- The format of having panel discussions is very good, but moderators need to make some the panel participants deliver their contributions on time of that also that they stick to the subject matter. During the second day the panellist took much of the time

for there was not enough time for discussion. Additionally some of the panel participants were very difficult to follow (2nd day) which make the day very heavy. The room used during the second day did not help the dynamic of the meeting. (Survey No. 36)

- FAO needs to show more leadership in the development of Save Food – Stick their head out a bit! (Survey no. 37)
- I agree with the working groups' idea which would be more efficient and productive in regarding to main questions on each topic. (Survey No. 39)
- Discussions might bring clearer results if the set topic was systematically enforced and respected. (Survey No. 41)
- Communicate presentations to presenters before the meeting to allow them to adjust content 1. Avoid repetition 2. Refer to previous presentations. (Survey No. 41)
- Optimize impact and recognition of UN efforts on food waste by harmonizing branding of Save Food and Think.Eat.Save (Survey No. 41)
- I recommend one action after each session, focal point for this action and time frame for delivering it. (Survey No. 42)
- Although the generous breaks offered great networking opportunities, a more interactive approach with working groups or thematic workshops can provide good hands on approaches to find priorities and propose actions for the different levels of the problems in different scenarios using the existing knowledge in:
 - post-harvest storage and handling
 - agribusiness
 - rural development and agric. extension
 - value added chain analysis
 - GAP, HACCP and quality management systems.
 - International trade/technology transfer
 - Anti food waste campaigns, etc.
- To adapt according to the various concerns exposed by the different participants' e.g. those representing smallholders and SME of the developing regions, to those of the food waste in higher income countries. (Survey No. 46. Alejandro Rodarte. Food Science Consultant and project manager arodcas@yahoo.com)
- Too few real proposals for the future. Good intentions but not practical solutions (Survey No. 48)