

# **THE MILAN PROTOCOL ON FOOD AND NUTRITION**

*Update 31 December 2015<sup>1</sup>*

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<sup>1</sup>The first edition of the Milan Protocol on Food and Nutrition was issued on 12 May 2014.

## Introduction

*The way in which resources are used and the speed at which renewable resources are being exploited rapidly erodes the planet's capacity to regenerate the resources and environmental services on which the wellbeing of all people depends. According to the recent Millennium Ecosystem Assessment report<sup>1</sup>, humans have changed ecosystems more rapidly and extensively over the past 50 years than in any comparable period of time in human history, largely in an effort to meet rapidly growing demands for food, fresh water, timber, fibre, and fuel.*

*The great challenge faced by societies today is to integrate socioeconomic and environmental sustainability within socioeconomic development and welfare by decoupling environmental degradation from economic development and doing more with less, to improve or preserve the present level of welfare with fewer resources. Now is the time to move towards an energy and resource efficient economy, whereby social inequalities are addressed. This is the only way to improve and safeguard the quality of life and well-being for present and future generations.*

*We, drawn by the theme “Feeding the Planet, Energy for Life” of the World EXPO 2015 in Milan, have come to realise that the links between people, the planet, and food need to be at the centre of our considerations, as they are the critical foundation of the sustainability of the earth and of humanity alike.*

*Climate change, agricultural productivity, water management, dietary habits, urbanisation, and population growth. The causes and consequences of these critical issues for our planet will ultimately depend on management of food systems in socioeconomic and environmental frameworks, currently afflicted by three major global paradoxes.*

*First paradox - FOOD WASTE: Every year, 1.3 billion tons of edible food are wasted, an amount that represents one third of global food production, or four times the amount needed to feed the 795 million<sup>2</sup> people suffering from undernutrition worldwide.*

*Second paradox - SUSTAINABLE AGRICULTURE: A large portion of crop and food production is funnelled into animal feed or biofuels despite widespread hunger and undernutrition. Predictions foresee global demand for biofuels reaching 172 billion litres in 2020, up from 81 billion litres in 2008, coinciding with an additional 40 million hectares of land converted for biofuel crops. A third of the global food production is used to feed livestock. Of the some 7 billion people on earth, 1 billion are without access to drinking water, which causes the death of 4,000 children each day. In contrast, 15,000 litres of water are needed for the production of a single kilo of beef. Excessive and harmful financial speculations on commodities further exacerbates the problem, leading to market volatility and increase in food prices.*

*Third paradox - COEXISTENCE OF HUNGER AND OBESITY: Today, for every person suffering from undernutrition, two are obese or overweight (overnutrition): 795*

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<sup>1</sup> Millennium Ecosystem Assessment. *Ecosystems and Human Well-being: Synthesis*. Washington DC: Island Press, 2005. Pp. 1-6. Online: <http://www.millenniumassessment.org/documents/document.356.aspx.pdf>

<sup>2</sup> FAO, IFAD and WFP. *The State of Food Insecurity in the World 2014 strengthening the enabling environment for food security and nutrition*. Rome: FAO, 2014. Pp. 4, 8, 11-12, 18, 40. Online: <http://www.fao.org/3/a-i4030e.pdf>

*million people suffer from undernutrition globally<sup>1</sup>, while over 2.1 billion people<sup>2</sup> are obese or overweight. Worldwide, obesity has nearly doubled since 1980 and continues to rise in epidemic proportions: the proportion of adults with a BMI of over 25kg/m<sup>2</sup><sup>3</sup> is over 30%. While 36 million people perish annually due to undernutrition and famine,<sup>4</sup> 3,4 million people die each year as a result of being overweight or obese. In addition, 44% of diabetes, 23% of ischaemic heart disease and up to 41% of cancer are attributable to an excess of food.<sup>5</sup> The root of this problem is a global imbalance of wealth and resources that results in some populations eating themselves sick while others barely or do not survive.*

*Global and complex interventions are required to establish sustainable consumption and production patterns to reconcile the respect for the planet and the well-being of its people. Governments and Institutions have a strong responsibility to address the three paradoxes, bearing on the truth that the hunger of people should take precedence to the hunger for unbridled growth. These are political, systemic problems and need political solutions. These paradoxes all threaten the unalienable human right to food creating serious social and environmental damages.*

### **Preamble**

***The Parties to this Milan Protocol*** gathered at the International Exposition Milan Italy 2015, hereafter “EXPO” under the auspices of the Bureau International des Expositions, hereafter “BIE”;

***Submit*** the full text, issued this on this DAY of MONTH two thousand fifteen.

***Respecting*** the objectives embodied in the International Exposition theme, “Feeding the Planet, Energy for Life”;

***Recognizing*** the Expo as a platform to confront and discuss the challenges and re-examine the relationship between humans, our planet and its resources;

***Confirming*** that the “right to safe and nutritious food” as a human right and therefore implies a strong legal and policy narrative using a Right to Food Framework as supported by the United Nations;

***Emphasizing*** that our situation is plagued and perpetuated by the aforementioned three global paradoxes;

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<sup>1</sup> Recent data from the World Food Programme contends that 795 million people in the world do not have enough food. That is about one in nine people on Earth. <http://www.wfp.org/hunger>

<sup>2</sup> The Lancet. *Global, regional, and national prevalence of overweight and obesity in children and adults during 1980-2013: a systematic analysis for the Global Burden of Disease Study 2013*. The Lancet, Volume 384, Issue 9945, August 2014. Pp. 766 – 781. Online : [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(14\)60460-8/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(14)60460-8/abstract)

<sup>3</sup> The measurement is based on BMI (Body Mass Index) calculation. A BMI of 25 – 29.9 is considered overweight, a BMI over 30 is obese.

<sup>4</sup>[http://www.theworldcounts.com/counters/global\\_hunger\\_statistics/how\\_many\\_people\\_die\\_from\\_hunger\\_each\\_year](http://www.theworldcounts.com/counters/global_hunger_statistics/how_many_people_die_from_hunger_each_year)

<sup>5</sup> World Health Organisation. *Fact sheet N°311*. WHO, August 2014. Online: <http://www.who.int/mediacentre/factsheets/fs311/en/>

**Highlighting** that the vast majority of hungry people (651 million) live in developing countries<sup>1</sup> where 13.5 percent of the population suffers from undernutrition;<sup>2</sup>

**Mindful** of the pressure and threats on resources and humanity in each of these areas;

**Understanding** that such problems have global impact and are not confined to a single country or region, and that collaborative international efforts are required to dismantle the paradoxes and return balance to the relationship between humans and our planet;

**Conscious** that global efforts for increased awareness raising and education have the capacity to solve the bulk of these problems;

**Recalling and noting** the relevant provisions in international, regional, and national legislation to protect and conserve resources and adopt actions in pursuit of sustainable development in the EU Water Framework Directive, the Roadmap to a Resource Efficient Europe, Millennium Development Goals to Eradicate Extreme Poverty and Hunger, Vienna Declaration on Nutrition and Non-communicable Diseases in the Context of Health 2020, Declaration by European Health Ministers with WHO against Non-Communicable Diseases;

**Having** discussed the unique capacity of humans to reject and rectify these injustices that prevent all persons from having freedom from hunger and ready access to food that is healthy, safe, and sufficient;

**We declare and propose** the following Milan Protocol to move toward a civilization oriented towards creating a sustainable future for planet and people where both exist and persist in harmony.

## **Article 1: Scope**

Each Party, in striving to adopt, promote and establish more sustainable consumption and production patterns, shall implement and/or further elaborate policies and measures in accordance to its national circumstances.

Parties will provide regular reports and estimates of current progress in a transparent and verifiable manner.

The undersigned commit to review and attend to the current and emerging societal needs on the most important issues linked to food and nutrition.

Foreseen actions include:

### **a) Commitments**

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<sup>1</sup> According to the FAO, 651 million or 80% of those suffering from hunger and undernutrition worldwide live in Southern Asia (276 million), Sub-Saharan Africa (214 million) and Eastern Asia (161 million). <http://www.fao.org/3/a-i4037e.pdf>

<sup>2</sup> FAO, IFAD and WFP. *The State of Food Insecurity in the World 2014 Strengthening the enabling environment for food security and nutrition*. Rome: FAO, 2014. Pp. “Key messages”, Online: <http://www.fao.org/3/a-i4030e.pdf>

### ***1. First commitment: Food Waste***

Parties commit to a 50 percent reduction by 2020 of the over 1.3 billion tons of edible food wasted by implementing the following actions:

- a) Agree on a **common definition** of food loss and food waste;
- b) Give priority to policies that aim to reduce food waste by addressing the **causes** of the phenomenon and follow a **hierarchy for the use of food**, since keeping track of the nature of food loss and waste is essential to eliminating hunger globally;
- c) Recognize the positive contribution of **cooperation and long-term food chain agreements** (between farmers, producers, and distributors) to allow for better planning and projections of consumer demand;
- d) Provide support to generate **awareness raising initiatives**, including from professionals in the food sector.

### ***2. Second commitment: Sustainable Agriculture***

Parties commit to **promote sustainable forms of agriculture and food production** in light of climate change and respect of natural resources, paying particular attention to environmental, agricultural and socioeconomic issues:

- a) **Biodiversity and agrobiodiversity;**
- b) **Management of land, water and energy resources;**
- c) **Climate mitigation and adaptation;**
- d) **Agricultural subsidies;**
- e) **Welfare of farm animals;**
- f) **Environmental impact;**
- g) **Promotion of sustainable practices.**

Parties commit to assign appropriate monetary and non-monetary values to ecosystem services and raw inputs into the system (such as water and energy) that are imbedded in food and used in food production.

Parties commit to limit global land conversion for biofuels, bioplastics or animal feed, while preserving the climate benefits of second generation biofuels<sup>1</sup>. To this end parties will explore techniques to use land both for food and non-food crops, for example with crop rotation, while limiting the use of food-based biofuels to 5 percent within national renewable energy targets<sup>2</sup>.

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<sup>1</sup> European Union: European Commission, *Communication from the Commission to the European Parliament, the Council, The European Economic and Social Committee and the Committee of the Regions: A policy framework for climate and energy in the period from 2020 – 2030*, 22 January 2014, COM (2014) 15 final, available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014DC0015&from=EN>. The assessment of how to minimize indirect land-use change emissions made clear that first generation biofuels have a limited role in decarbonization. The European Commission opted to focus on improving second and third generation biofuels and other alternative sustainable biofuels.

<sup>2</sup> This target is consistent with the Commission proposal on Biofuels from October 2012, currently under discussion. European Union: European Commission, *Directive of the European Parliament and of the Council*

Parties commit to identify and propose legislation to regulate international financial speculation on commodities as well as land speculation and protect vulnerable communities from “land grabbing” by public and private entities, while reinforcing the right of local communities and native populations to access land.

- a) Encourage **equal access to agriculture, production and markets** for indigenous, minority groups and women;
- b) Set out a framework for **financial speculation** on commodities and the related price fluctuations in food markets to create conditions for better food security;
- c) Establish rules **to guarantee land property rights globally** and end land grabbing.

### ***3. Third commitment: Eradicate Hunger and Fight Obesity***

Parties commit to eliminate hunger and undernutrition by implementing the following actions:

- a) Following the new global paradigm for development, the Sustainable Development Goals<sup>1</sup>, to:
  - i **Provide all populations with all-year access to adequate, safe and nutritious food;**
  - ii **End undernutrition;**
  - iii **Make food production systems more productive, efficient, sustainable and resilient;**
  - iv **Secure access for small food producers and youth.**
- b) Endeavour to **make equity intrinsic to economic development;**
- c) **End cyclical and chronic undernutrition** through direct and indirect actions;
- d) **Make undernutrition visible** as a preventable crisis.

Parties commit to halt the rise in obesity, ensuring that there is no increase in childhood overweight and no increase in adolescent and adult obesity by 2025<sup>2</sup>, by implementing the following actions:

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*amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources.* 17 October 2014, COM (2012) 595 final, available at: [http://ec.europa.eu/clima/policies/transport/fuel/docs/com\\_2012\\_595\\_en.pdf](http://ec.europa.eu/clima/policies/transport/fuel/docs/com_2012_595_en.pdf)

<sup>1</sup> The Sustainable Development Goals will replace the Millennium Development Goals from 2015.

<sup>2</sup> World Health Assembly Target from 2012. The target implies that the global prevalence of 7% among children should not rise to 9.1% in 2020 as per current trends, and that the number of overweight children under 5 years of

- a) Promote a **culture of prevention** on the role of nutrition for health including amongst vulnerable populations and encourage responsible and healthy diets and lifestyles;
- b) Encourage **physical activity** as a crucial component to a healthy lifestyle;
- c) **Improve** food system governance.

## **b) Exchange of information, research, and best practices**

1. *Each Party will cooperate with other parties to enhance the individual and combined effectiveness of policies and implications with regard to three central paradoxes;*
2. *Parties shall take steps to share experience and exchange information on best practices policies, measures, and campaigns;*
3. *Parties will pursue improvement of transparency and communication to enable comparison between policies;*
4. *Together in intent and separate in country, Parties will consider ways to facilitate global and regional cooperation.*

### **Article 2: Preparatory phase**

Each Party shall design and implement no later than one year after the initial preparatory phase a national system capable of addressing the three commitments identified in Article 1.

During a preparatory phase that shall last no longer than 12 months, the Parties shall develop practices and policies that do not, individually or jointly, aggravate or perpetuate the current crises and shall contribute constructively to their abolishment, namely by

1. *Collecting and analysing knowledge and expertise to share pertinent and valuable information to other parties regarding but not limited to diet and food intake and purchasing habits, agricultural practices, and food waste;*
2. *Making available major opinions and national policy initiatives in food and nutrition, as well as prevailing recommendations, to improve life and overall wellbeing;*
3. *Identifying the fundamental actions and policies in several sectors including the environment, science, and the economy;*
4. *Defining a common methodology to measure results and progress.*

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age should not increase from the estimated 44 million in 2012 to approximately 60 million as forecast. WHO. *Global Nutrition Targets 2025, Childhood Overweight Policy Brief*. 2014. P. 2. Online: [http://www.who.int/nutrition/globaltargets\\_overweight\\_policybrief.pdf](http://www.who.int/nutrition/globaltargets_overweight_policybrief.pdf)

### **Article 3: Guidelines for the commitments of Parties**

For each commitment, Parties shall take the following guidelines into consideration:

#### ***1. First commitment: Food Waste***

Parties will endeavour to reduce current food waste by 50 percent by 2020<sup>1</sup>. United in this goal, Parties will seek a common definition and methodology to quantify food waste to help harmonise food waste monitoring and practices. With regard to specific commitments:

- a) **Parties shall build on the definitions of food loss and waste** provided by the Food and Agricultural Organisation (FAO) and improve them as appropriate;<sup>2</sup>
- b) **Parties shall cooperate to develop international guidelines and standards for measuring food loss and waste**, in the context of ongoing efforts such as the Food Loss & Waste Protocol;<sup>3</sup>
- c) Parties shall **give priority to avoiding food losses and waste by addressing their root causes**,<sup>4</sup> before directing focus to how best to dispose of waste.

Waste reduction initiatives should respect a **hierarchy**, namely:

- i. Prevention;

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<sup>1</sup> This is the target indicated by the Food and Agricultural Organisation (FAO) and World Food Programme (WFP) for the revised global development paradigm of Sustainable Development Goals (SDGs) to succeed the Millennium Development Goals (MDGs) from 2015. FAO, IFAD and WFP. *Post 2015 Development Agenda: Targets and Indicators*. Rome: FAO, March 2014. P. 5. Online: [http://www.fao.org/fileadmin/user\\_upload/post-2015/Targets\\_and\\_indicators\\_RBA\\_joint\\_proposal.pdf](http://www.fao.org/fileadmin/user_upload/post-2015/Targets_and_indicators_RBA_joint_proposal.pdf)

The European Parliament set this goal for the EU (with a different deadline of 2025) in their communication on food waste in 2012, which would be a reduction of 44.5 million tonnes (in 2012 89 million tonnes were wasted in the EU27). European Union, European Parliament: *European Parliament Resolution of 19 January 2012 on how to avoid food wastage: strategies for a more efficient food chain in the EU*. 19 January 2012. 2011/2175 (INI), available at: <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2012-0014+0+DOC+XML+V0//EN>

<sup>2</sup> FAO defines food loss as “a decrease in edible food mass throughout the part of the supply chain that specifically leads to edible food for human consumption”. Food waste is defined as “food losses occurring at the end of the food chain appropriate for human consumption”. All food originally meant for human consumption but which leaves the human food chain is considered food loss or waste, even if it is directed to a non-food use (feed or bioenergy). van Otterdijk, Robert and Alexandre Meybeck. *Global Food Losses and Food Waste*. Rome: FAO, 2011. P.2. Online: [http://www.fao.org/fileadmin/user\\_upload/sustainability/pdf/Global\\_Food\\_Losses\\_and\\_Food\\_Waste.pdf](http://www.fao.org/fileadmin/user_upload/sustainability/pdf/Global_Food_Losses_and_Food_Waste.pdf)

<sup>3</sup> The Food Loss and Waste Protocol of the World Resources Institute (WRI) is a multistakeholder effort to develop the global standard for measuring food loss and waste to enable countries, companies and other organisations to estimate in a credible, practical and consistent manner how much food is lost and wasted and identify where this occurs. Its development is coordinated by WRI in conjunction with Consumer Goods Forum, FAO, FUSIONS, UNEP, World Business Council for Sustainable Development, and WRAP. Online: <http://www.wri.org/our-work/project/food-loss-waste-protocol>

<sup>4</sup> One possibility to determining the causes of food losses and waste: the FAO has developed three different levels of the causes of food losses and waste: micro, meso, and macro as well as the solutions (such as investments, behavioural change, or valorization of food) most appropriate for each cause. High Level Panel of Experts on Food Security and Nutrition (HLPE). *Report 8: Food losses and waste in the context of sustainable food systems*. Rome: FAO, 2014. Pp. 39 – 83. Online: <http://www.fao.org/3/a-i3901e.pdf>.

- ii. Reuse for human food intake;
- iii. Animal food intake;
- iv. Energy production and composting.

Parties shall develop appropriate and targeted interventions to reduce food waste, taking into account the different role and responsibilities of the actors at each stage of the food supply chain:

- i. Farmers and producers;
  - ii. Post-harvest handling and storage companies;
  - iii. Processing companies;
  - iv. Distribution: retailers, groceries, restaurants;
  - v. Consumers.
- d) Parties shall endeavour to address the issue at every stage in the food chain, from producers to consumers to create a fully **informed chain** of actors wherein all have a responsibility in helping to reduce food waste:
- i. Analysis to address the gap in knowledge regarding the shortcomings of the food supply chain from a resource efficiency perspective, with particular regard to production and distribution stages;
  - ii. Cooperation between farmers as well as long-term vertical food chain agreements to allow for a better planning of consumer demand, both quantitatively and qualitatively;
  - iii. Trainings for professionals in the food sector and for packaging designers, to incentivize the processing industry to market products that encourage households to reduce food waste;
  - iv. Information-sharing among packaging designers to reduce food waste through the use of retail ready packaging and display pallets size and capacity to protect products and improve stock turnover for greater recoverability, reduced damage and less expiration before sale;
  - v. Education of consumers to show their role and insist on their accountability in the food waste problem. Explanation of the use-by and best-by dates of food products which have proved to be confusing, teach food planning, storage and preservation, and preparation of food leftovers.
- e) Parties shall engage in immediate awareness raising measures to reduce food waste, including:

- i. Analysis of the perceived value of food at the household stage and of the socio-economic impact associated with wasted food;
- ii. Development of reporting mechanisms and platforms to deliver data on food waste and assessment of progress made, including the pooling of best experiences and practices to encourage smart usage of the resources involved and nurture initiatives which prove effective;
- iii. Assessment of the impact of food and farm subsidies that lower prices and decrease consumer perception of food's value and increase food waste;
- iv. Consider alternative economic models evaluated on their impact on human and environmental wellbeing rather than giving priority to traditional growth measures such as GDP;<sup>1</sup>
- v. Incentive-based approaches given the emergency of the situation, including targets for food waste prevention and collection at local or national levels;
- vi. Promotion of food education explaining how to preserve, cook, and dispose of foods, in order to address cultural causes of food waste.

## 2. *Second commitment: Sustainable Agriculture*

- a) Parties shall engage in the promotion of **sustainable agriculture**, understood as the efficient production of safe, healthy and high quality agricultural products, in a way that is environmentally, economically and socially sustainable. Parties will do this by protecting the natural environment and its resources and mitigating climate change, by improving the social and economic conditions of farmers, employees and local communities, and by safeguarding animal welfare for all farm species.

Parties shall advocate for productive and resource-efficient farming that is adapting to climate change and able to mitigate its most negative impacts, taking into account the specificities of different farming systems in terms of size, models, inputs, technology and sustainable longevity.

Parties shall agree on global sustainability targets in the following environmental, agricultural and socioeconomic areas:

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<sup>1</sup> The Urban Institute's "State of Society" shows how to measure economic success and human wellbeing, showing the drawbacks to considering only GDP. De Leon, Erwin and Elizabeth T. Boris. *The State of Society: Measuring Economic Success and Human Wellbeing*. The Urban Institute: 2014. Online: <http://www.urban.org/uploadedpdf/412101-state-of-society.pdf>

The Sustainable Society Foundation (<http://www.ssindex.com/ssi/>) talks about a *Sustainable Society Index (SSI)* that measures human and environmental wellbeing as integrated concepts and explains the limitations of GDP. The SSI measures human, environmental, and economic wellbeing for a holistic picture of societal health beyond economics.

**i. Biodiversity and Agro-biodiversity;**

Parties will make biodiversity a priority in accordance with renewed international focus on biodiversity enshrined in the Gangwon Declaration on Biodiversity<sup>1</sup>, defined as<sup>2</sup> all components of biological diversity relevant to production (variety and variability of plants, animals, and microorganisms at genetic species and ecosystem levels) that contributes to stability and resilience. In this regard, Parties will consider diverse ownership of the germplasm to prevent the monopolization of international corporations, traditional and appropriate crop choice, traditional agricultural knowledge, and the importance of genetic biodiversity and associated biodiversity that support agricultural production through nutrient cycling, pest control and pollination. Special attention will be given to diversity within and between habitats and at the landscape level for its contribution in providing alternative food sources for beneficial insects and natural enemies of crop pests.

**ii. Management of land, water and energy resources;**

Parties will use Green Accounting and Virtual Water and other effective multicriteria tools to estimate the monetary and non-monetary value of ecosystem services under different scenarios and in light of the precautionary principle to maximise system resilience. Parties will modify current subsidy systems to account for these values and scenarios and promote food and water security accordingly.

**iii. Climate mitigation and adaptation;**

Parties will implement agricultural practices to benefit decarbonisation and adapt to the constraints of climate change, such as carbon sequestration.

**iv. Agricultural subsidies;**

Parties shall work to reform agricultural subsidies to consider not only farmers' production capacity but also the degree to which their agricultural methods and local materials are sustainable to preserve and enhance the multiple services provided by agriculture. 150 million of the hungry people live in developed countries. Subsidies to support GMO products or convert 30% of US-American corn to the biofuel ethanol only exacerbate problems of insufficient food.

**v. Welfare of farm animals;**

Parties will strive to take into account the five freedoms<sup>3</sup> with farm animals and consider other husbandry methods which are more sustainable (such as land-based extensive systems coupled with rotational crop farms, in terms of resource depletion (water, grain-

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<sup>1</sup> Gangwon Declaration on Biodiversity for Sustainable Development, 2014: Online: <http://www.cbd.int/hls-cop/gangwon-declaration-hls-cop12-en.pdf>

<sup>2</sup> CBD (Convention on Biological Diversity), 2000. *Programme of Work on Agricultural Biodiversity*. Decision V/5 of the Conference of the Parties to the Convention on Biological Diversity, May 2000, Nairobi: Convention on Biological Diversity. Online: <http://www.cbd.int/decision/cop/default.shtml?id=7147>

<sup>3</sup> The Farm Animal Welfare Committee (FAWC) established the 'five freedoms' in 1979, recognized worldwide by animal welfare organisations. The five freedoms are:

- (1) Freedom from Hunger and Thirst
- (2) Freedom from Discomfort
- (3) Freedom from Pain, Injury or Disease
- (4) Freedom to Express Normal Behaviour
- (5) Freedom from Fear and Distress

Online: <https://www.gov.uk/government/groups/farm-animal-welfare-committee-fawc#assessment-of-farm-animal-welfare---five-freedoms>

based feed, energy) and protect against climate change, biodiversity loss, disease and food insecurity, while helping to avoid needless farm animal suffering.<sup>1</sup>

vi. **Environmental impact;**

Parties will encourage the development of global indicators measuring the economic, environmental and social performance of different farming systems (for example, with or without pesticides or fertilizers or with or without crop rotation, irrigation methods) and their impact on global sustainability targets. This includes an assessment of new technologies on their impacts and long-term sustainability.

vii. **Education.**

Parties shall invest in the human capital of farmers as stewards of the land, educating them about the economic and environmental benefits of sustainable agriculture.

- b) Parties shall revise their use of **biofuels and industrial uses such as bioplastics** in congruence with sustainability as an essential condition for their long-term viability, given the potential adverse effects of biofuels on food prices, the global food supply and access to food particularly for poor families and climate change mitigation.

Parties commit to:

- i. Limit the portion of first generation biofuels from food crops in national renewable energy targets to 5 percent;
  - ii. Investigate the merits of relaxing or suspending biofuel mandates especially at times of agricultural price pressures.
- c) Parties shall **endeavour to review the allocation of the supply of food for animal feed** by considering other ways for feeding animals, considering security and access to food as primary concerns.

Parties commit to:

- i. Consider more sustainable ways to feed animals such as pasture, grazing crops, agro-byproducts (even from biofuel crops) or food waste;
  - ii. Reduce the use of antibiotics to a minimum to avoid resistance to antibiotics and/or threats to human health.
- d) Parties shall encourage equitable and sustainable access to and sharing of natural resources (including animal and plant genetic resources) and their management. To do so, access must be secured for small food producers, especially women, to adequate and diverse planting materials, education, inputs, knowledge, productive resources, markets, infrastructure, revenues and services. These producers are central to new partnerships for a hunger free world.

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<sup>1</sup> Compassion in World Farming evidence shows that factory farming is not “just bad for farm animals” but has harmful impacts: climate change, biodiversity loss, disease, food insecurity. <http://www.ciwf.org.uk/factory-farming/>

- e) Parties shall endeavour to end land grabbing and ensure land property rights, especially in middle and low income countries where between 50 and 80 million hectares of land have been acquired by international investors<sup>1</sup>. To this end, Parties shall strive to identify and record ownership and use of land.
- f) Parties shall endeavour to increase transparency on the food market and work on a regulatory framework for **financial speculation** on food commodities in the food market.

Parties shall pressure regulators to introduce caps on the number and size of bets speculators can make, in order to curb excessive speculation as well as to improve transparency by ensuring that all future contracts are cleared through regulated and transparent exchanges.

Parties shall endeavour to limit the amount of food commodities that can be traded. This involves familiarising banks, pension funds and insurers with the issue, so that they might phase-out and refrain from financial speculation on staple foods. Such speculation threatens the human right to food.

### ***3. Third commitment: Eradicate Hunger and Fight Obesity***

- a) Parties commit to **end hunger and undernutrition and the associated fatalities** as per the SDGs, the new global development paradigm and successor to the MDGs. Despite the approaching MDG deadline of 2015, 1 in 8 people worldwide remain hungry and progress has been uneven within and across countries. The SDGs are in development, but the Food and Agriculture Organisation (FAO) and World Food Programme (WFP) have revealed targets for food security and nutrition that will influence the set of SDGs. Parties to the Protocol will strive to:
  - i. **Observe the Human Right to Food and provide access to adequate food** all year round for all people;
  - ii. **End undernutrition in all its forms** with particular attention to stunting;
  - iii. **Make food production systems more productive, efficient, sustainable and resilient** beyond simply increasing production. More food does not mean better nutrition.
- b) One of the many causes of hunger and undernutrition is poverty<sup>2</sup>, alongside political instability, perennial conflicts, lack of infrastructure

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<sup>1</sup> High Level Panel of Experts on Food Security and Nutrition (HLPE). *Report 2: Land tenure and international investments in agriculture*. Rome: FAO, 2011. P. 8. Online: [http://www.fao.org/fileadmin/user\\_upload/hlpe/hlpe\\_documents/HLPE-Land-tenure-and-international-investments-in-agriculture-2011.pdf](http://www.fao.org/fileadmin/user_upload/hlpe/hlpe_documents/HLPE-Land-tenure-and-international-investments-in-agriculture-2011.pdf)

<sup>2</sup> According to the World Bank, the poorest children in the poorest countries are two times more likely to suffer from chronic undernutrition than their richest counterparts, and 2-3 percent of national income can be lost to

and the impossibility many poor countries face to properly and fairly profit from trade or natural resources. Eliminating hunger is one way to unlock the potential of people, communities and nations, Parties will endeavour to **make equity intrinsic to economic growth and protect families from poverty.**

- c) With regard to cyclical undernutrition, parties commit to end **seasonal hunger**—a predictable gap wherein food stocks are exhausted before new harvests become available—which causes life-threatening undernutrition. Seasonal food insecurity is invisible to poverty economics based on annual data. This can be mitigated through technology, seasonal employment programmes, agricultural diversification or investments in infrastructure.
- d) With regards to undernutrition, Parties will engage in direct and indirect interventions, such as micronutrient supplements, water sanitation, recruitment to fill a shortage of at least 3.5 million health professionals, or fortification of staple foods. Parties will use the market influence on production and diet choices to address undernutrition and offer social protection for populations suffering from hunger or undernutrition not because there is no nutritious food available but because they cannot afford to buy it.
- e) Parties **will make undernutrition visible** as a preventable crisis. Building up the profile of the crisis will lead to political momentum to galvanize change. To date it is a hidden killer that does not appear on death certificates and releases governments from the responsibility of preventing these deaths.
- f) Parties **commit to halt the rise in obesity and overweight by facilitating scientific research** on nutrition topics in reference to eating patterns and their impact on health and to disseminate their findings, including on the linkages between people's diets and environment, health and nutrition outcomes. This includes levels of physical activity, micro biome of the gut, socioeconomic status and the onset of chronic diseases and/or overnutrition and the metabolic and endocrine effects related to international guidelines for a healthy and sustainable diet<sup>1</sup>, such as the Mediterranean model.

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undernutrition. Measures to combat undernutrition will therefore pay for themselves. Online: <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTHEALTHNUTRITIONANDPOPULATION/EXTNUTRITION/0,,contentMDK:20839585~menuPK:282580~pagePK:64020865~piPK:149114~theSitePK:282575,00.html>

<sup>1</sup> The FAO defines sustainable diets as “those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources.” FAO: *International Scientific Symposium Biodiversity and Sustainable Diets United Against Hunger*. Rome: FAO, 2010. P.1. Online: <http://www.fao.org/ag/humannutrition/23781-0e8d8dc364ee46865d5841c48976e9980.pdf>

- g) Parties commit to address gaps in the **food system governance** in different national contexts:
  - i. Promote healthy choices through consumer-friendly nutrition information;
  - ii. Increase food and health literacy among population, including through long-term awareness campaigns;
  - iii. Provide evidence that healthy and sustainable diets are affordable diets;
  - iv. Account for socioeconomic inequality in homes, schools, hospitals, workplaces and schemes to encourage healthy eating in these settings;
  - v. Limit advertising and aggressive marketing to children for high energy, saturated fats, trans fatty acids, free sugars or salty foods;
  - vi. Support surveillance, monitoring, evaluation and research of the population's nutritional status and behaviours
- h) Parties shall develop a **physical activity** strategy for different age groups at local and community level in conjunction with high risk diet information. Programmes shall be formulated with a long-term horizon to allow interventions to have the necessary impact on targeted populations. They could include awareness raising activities, increasing mandatory physical education in schools, and financial incentives on sports equipment or fitness programmes, as appropriate.

Parties shall encourage the creation of public-private initiatives to bridge the knowledge gap on the relationship between diet and health, especially with regard to the years of childhood and adolescence.

#### **Article 4: Establishment of a Governing Body and Secretariat for the Protocol**

The governance of the Protocol is overseen by a Governing Body elected and nominated by the fellow signatories to the Protocol. The duties of this body include:

- a) Acting as depositary of the Protocol
- b) Transmittance of any draft amendments to all Parties six months prior to prospective adoption
- c) Gathering of information regarding the methods for implementing Party commitments regarding particular success, failure, and progress. This includes overall effects of the measures taken as well as the estimated cumulative impact on the three paradoxes
- d) Routine distribution of information on measures adopted by the Parties, taking into account the differing circumstances, responsibilities and capabilities of the Parties.

1. *Promote and guide the development and refinement of comparable methodologies to determine best practices for the most effective implementation of this Protocol.*
2. *Seek to utilize and reincorporate external information and services from cooperative competent international organizations, nongovernmental and intergovernmental bodies.*

The Governing Body and Secretariat is elected for a term of two years. The body shall be replaced in case of need to cede duties or if resignation is demanded by a majority of the Parties. The Governing Body and Secretariat shall be replaced by an additional member elected by and from amongst the remaining Parties of the Protocol.

#### **Article 5: Provisions for Joint Action with Parties External to Protocol**

The Protocol Parties acknowledge that external parties including non-governmental organisations, civil society and industry bodies may be helpful cooperative partners for joint action. The Protocol encourages these projects, as these partners are stakeholders and advocates for the common goal. Only by addressing the paradoxes together and from several angles can Parties effectively fight the crisis. Therefore Parties acting in the framework of and together with regional or international organizations are free to continue to fulfil commitments established in those partnerships independent from the Milan Protocol.

Parties maintain however an obligation to inform: Parties must inform other Parties as to the terms of the agreement (duration, participants, and goals) and update routinely, especially to discuss fruitful or failed practices so that other Parties may benefit from knowledge and experience acquired. This ensures that positive developments and methods can be shared across the Protocol Parties and identifies potential partners for the common goal.

#### **Article 6: Amendments**

Any individual Party or group of Parties may propose amendments to the Protocol text.

Proposed amendments shall be communicated to Governing Body and Secretariat of the Protocol which will transmit the proposed change to the Parties. Amendments are tabled for a minimum six months before being eligible for adoption.

Amendments are adopted by consensus. If efforts at consensus are exhausted, amendments can be adopted by three-fourths majority vote by the Parties. Each Party disposes of one vote.

Amendments enter into force 90 days after adoption via consensus or vote.

#### **Article 7: Withdrawal Clause**

At any time in the three year from the date of entry into force of this Protocol, any Party may withdraw from this Protocol via provision of written notification Secretariat and Governing body of the Protocol.

#### **Article 8: Protocol Entry into Force**

**Milan Protocol on Food and Nutrition – Update 31 December 2015**

The Protocol shall be open for signature and therefore acceptance or approval by participating states at EXPO Milano 2015 under the auspices of BIE. It shall be open for signature throughout the course of the Exposition from DAY of MONTH two thousand and fifteen to DAY of MONTH two thousand and fifteen in Milan.

The Protocol is open for accession beginning with the day following this signature period, DAY of MONTH two thousand fifteen.

## ANNEX I – GLOSSARY OF TERMS

**Biodiversity or Biological Diversity:** the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part, including diversity within species, between species and of ecosystems.<sup>1</sup>

**Body Mass Index:** is a measure of body fat based on height and weight that applies to adult men and women. Body mass index (BMI) = kg/m<sup>2</sup>. It is commonly used to classify obesity (BMI greater than or equal to 30) or overweight (BMI 25 – 29.9).<sup>2</sup>

**Carbon sequestration:** describes both natural and deliberate processes by which Carbon Dioxide (CO<sub>2</sub>) that would otherwise be emitted or remain in the atmosphere is removed from the atmosphere or diverted from emission sources and captured and stored long term in the ocean, terrestrial environments, and geologic formations.<sup>3</sup>

**Chronic undernutrition:** or **stunting** is a form of growth failure occurring over time. Individuals who are stunted or suffer from chronic undernutrition often appear normally proportioned but are actually shorter or weigh less than is normal for his/her age. Stunting starts before birth and is caused by poor maternal nutrition, poor feeding practices, poor quality as well as frequent infections which can slow growth.<sup>4</sup>

**Climate adaptation:** anticipating the adverse effects of climate change and taking appropriate action to prevent or minimise the damage they can cause, or taking advantage of opportunities that may arise. Well planned, early adaptation saves money and lives.<sup>5</sup>

**Climate mitigation:** refers to efforts to reduce or prevent greenhouse gas emissions. Mitigation can mean using new technologies and renewable energies, making older equipment more energy efficient, or changing management practices or consumer behaviour.<sup>6</sup>

**Consumption:** the term consumption is not synonymous with “food intake” but refers to all forms of use, i.e. food, feed, seed and industrial use as well as losses and waste.<sup>7</sup>

**Cyclical undernutrition:** or **seasonal food security** falls between chronic and transitory food insecurity. It is usually predictable and occurs when there is a cyclical pattern of inadequate

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<sup>1</sup> United Nations. *Convention on Biological Diversity: Article 2 - Use of Terms*. United Nations, 1992. Online : <http://www.cbd.int/doc/legal/cbd-en.pdf>

<sup>2</sup> The World Health Organisation. *Fact Sheet N°311*. WHO, August 2014. Online : <http://www.who.int/mediacentre/factsheets/fs311/en/>

<sup>3</sup> US Department of the Interior Geological Survey. *Carbon Sequestration to Mitigate Climate Change: Fact Sheet 2008-3097*. USGS, 2008. P.1. Online : <http://pubs.usgs.gov/fs/2008/3097/pdf/CarbonFS.pdf>

<sup>4</sup> UNICEF. *Harmonized Training Package: Resource Material for Training on Nutrition in Emergencies, Lesson 2.3* UNICEF, 2011. Online: <http://www.unicef.org/nutrition/training/2.3/20.html>

<sup>5</sup> European Commission, DG Climate Action. *Adaptation to Climate Change*. European Commission, 2014. Online : [http://ec.europa.eu/clima/policies/adaptation/index\\_en.htm](http://ec.europa.eu/clima/policies/adaptation/index_en.htm)

<sup>6</sup> United Nations Environment Programme. *Climate Change Mitigation*. UNEP. Online : <http://www.unep.org/climatechange/mitigation/Home/tabid/104335/Default.aspx>

<sup>7</sup> Alexandratos, Niko and Jelle Bruinsma. *World Agriculture Towards 2030/2050*. FAO, 2012, P.3. Online : [http://www.fao.org/fileadmin/templates/esa/Global\\_perspectives/world\\_ag\\_2030\\_50\\_2012\\_rev.pdf](http://www.fao.org/fileadmin/templates/esa/Global_perspectives/world_ag_2030_50_2012_rev.pdf)

availability and access to food associated with seasonal fluctuations in the climate, cropping patterns, work opportunities (labour demand) and disease. It is often not captured in statistics.<sup>1</sup>

**Decarbonisation:** the transition to a low carbon economy to meet targets in limiting emissions or climate change. Decarbonisation requires a transformation of mid-century energy systems through declines in carbon intensity in all sectors of the economy, for example through development and diffusion of low carbon technologies.<sup>2</sup>

**Ecosystem services:** are the benefits people obtain from ecosystems, including provisioning services such as food and water, regulating services such as flood and disease control, cultural services such as spiritual, recreational and cultural benefits, and supporting services such as nutrient cycling that maintain the conditions for life on earth.<sup>3</sup>

**EU Water Framework Directive:** a directive of the European Union that established a framework for EU action in the field of water policy, committing EU Member States to achieve good qualitative and quantitative status (inter alia biological quality, chemical quality, physical-chemical quality) of all water bodies by 2015.<sup>4</sup>

**Financial speculation of commodities:** banks, hedge funds and pension funds betting on food prices in financial markets can create instability and push up global food prices in staple foods such as wheat, maize and soy. Deregulation of market enables speculators free reign which can lead to dramatic spikes and crashes.<sup>5</sup>

**First-generation biofuels:** refer to fuels that have been derived from sources like starch, sugar, animal fats, and vegetable oil. First-generation fuels are produced directly from food crops. The structure of the fuel does not change between generations, rather the source from which the fuel is derived. Corn, wheat and sugar cane are the most commonly used first generation biofuel feedstock.<sup>6</sup>

**Food Loss:** refers to edible parts of plants and animals that are produced or harvested for human intake but are not ultimately eaten by people. In particular, food loss refers to food that spills, spoils, incurs and abnormal reduction in quality such as bruising or wilting, or otherwise gets

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<sup>1</sup> Food and Agriculture Organisation of the United Nations. *An Introduction to the Basic Concepts of Food Security*. EC – FAO Food Security Programme, 2008. Online : <http://www.fao.org/docrep/013/a1936e/a1936e00.pdf>

<sup>2</sup> Institute for Sustainable Development and International Relations. *Pathways to deep decarbonization*. Sustainable Development Solutions Network (SDSN), Sept. 2014. Online : [http://unsdsn.org/wp-content/uploads/2014/09/DDPP\\_Digit\\_updated.pdf](http://unsdsn.org/wp-content/uploads/2014/09/DDPP_Digit_updated.pdf)

<sup>3</sup> United Nations Environment Programme. *Ecosystems and Human Wellbeing, Chapter 2: Ecosystems and their Services*. UNEP, 2005 Pp. 49 – 70. Online : <http://www.unep.org/maweb/documents/document.300.aspx.pdf>

<sup>4</sup> European Union: European Commission, *Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for Community action in the field of water policy*. European Commission, 23 October 2000. Online: [http://eur-lex.europa.eu/resource.html?uri=cellar:5c835afb-2ec6-4577-bdf8-756d3d694eeb.0004.02/DOC\\_1&format=PDF](http://eur-lex.europa.eu/resource.html?uri=cellar:5c835afb-2ec6-4577-bdf8-756d3d694eeb.0004.02/DOC_1&format=PDF)

<sup>5</sup> World Development Movement. *Food Speculation : What is the Problem?* Online : <http://www.wdm.org.uk/stop-bankers-betting-food/what-problem>

<sup>6</sup> Biofuel.org.uk. *First-generation Biofuels*. Biofuel.org.uk, 2010. Online : <http://biofuel.org.uk/first-generation-biofuel.html>

lost before it reaches the consumer.<sup>1</sup> Food Loss requires technical interventions to improve *inter alia* harvesting, storage and transport.

**Food Security:** the World Food Summit of 1996 defined food security as existing when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life. The concept of food security includes both physical and economic access to food that meets people’s dietary needs as well as their food preferences.<sup>2</sup>

**Food Waste:** refers to edible parts of plants and animals that are produced or harvested for human intake but are not ultimately eaten by people. In particular, food waste refers to food that is of good quality and fit for human intake but that does not get eaten because it is discarded – either before or after it spoils. Food waste is the result of negligence or the conscious decision to throw food away.<sup>3</sup> Food waste mitigation requires behaviour and policy interventions.

**Green accounting:** or **environmental accounting** is a tool to understand the role played by the natural environment in the economy, a set of aggregate data linking the environment to the economy. Environmental accounts provide data to highlight the contribution of natural resources to economic well-being and the costs imposed by pollution or resource degradation.<sup>4</sup>

**Gross Domestic Product (GDP):** GDP measures the monetary value of final goods and services produced in a country in a given period of time. It has become widely used as a reference point for the health of national and global economies.<sup>5</sup>

**Hunger:** A state, lasting for at least one year, of inability to acquire enough food, defined as a level of food intake insufficient to meet dietary energy requirements.<sup>6</sup>

**International Exposition 2015:** International event sanctioned by the Bureau of International Expositions referring to the largest class of exhibitions of 3 to 6 months’ duration. The International Exposition 2015 (“EXPO 2015”) will take place in Milan, Italy from May – October 2015 and will host over 140 national and regional pavilions and expositions. The theme of EXPO 2015 is “*Feeding the Planet, Energy for Life*”.<sup>7</sup>

**Land-grabbing:** large scale land acquisitions (purchases, leases or other), legal or illegal, international or national (although there is a dominance of private sector, foreign investment land acquisitions). Recent years have seen an increase in the size of single acquisitions. Important to monitor as land is so important to identity, livelihoods and food security. The

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<sup>1</sup> Lipinski, Brian with Craig Hansen, James Lomax, Lisa Kitinoja, Richard Waite and Tim Searchinger. *Installment 2 of “Creating a Sustainable Food Future”: Reducing Food Loss and Waste*. World Resources Institute, June 2013. P. 1. Online : [http://www.wri.org/sites/default/files/reducing\\_food\\_loss\\_and\\_waste.pdf](http://www.wri.org/sites/default/files/reducing_food_loss_and_waste.pdf)

<sup>2</sup> World Health Organisation. *Glossary: Food Security*. WHO, 2014. Online : <http://www.who.int/trade/glossary/story028/en/>

<sup>3</sup> Lipinski, Brian with Craig Hansen, James Lomax, Lisa Kitinoja, Richard Waite and Tim Searchinger. *Installment 2 of “Creating a Sustainable Food Future”: Reducing Food Loss and Waste*. World Resources Institute, June 2013. P. 1. Online : [http://www.wri.org/sites/default/files/reducing\\_food\\_loss\\_and\\_waste.pdf](http://www.wri.org/sites/default/files/reducing_food_loss_and_waste.pdf)

<sup>4</sup> Hecht, Joy. *Environmental Accounting: What’s it all about?* The World Conservation Union (IUCN), Washington DC, 1997. Online : <http://www.unpei.org/sites/default/files/PDF/budgetingfinancing/Environmental-accounting.pdf>

<sup>5</sup> Callen, Tim. *Gross Domestic Product: An Economy’s All*. IMF, March 2012. Online : <http://www.imf.org/external/pubs/ft/fandd/basics/gdp.htm>

<sup>6</sup> Food and Agriculture Organisation of the United Nations. *The FAO Hunger Map 2014*. FAO, 2014. Online : [http://www.fao.org/hunger/en/?fb\\_locale=ja\\_JP](http://www.fao.org/hunger/en/?fb_locale=ja_JP)

<sup>7</sup> EXPO 2015 : <http://www.expo2015.org/it>

growing scrutiny of land deals creates pressure for a more measured and multifaceted approach on the part of investors and governments.<sup>1</sup>

**Millennium Development Goals (MDGs) to Eradicate Extreme Poverty and Hunger:** the eight MDGs range from halving extreme poverty rates to halting the spread of HIV/AIDS to ending hunger or ensuring environmental sustainability form a blueprint agreed to by nations and leading development institutions.<sup>2</sup>

**Obesity:** defined as abnormal or excessive fat accumulation that may impair health. Body mass index (BMI) is a simple index of weight-for-height ( $BMI = kg/m^2$ ) that is commonly used to classify obesity in adults. The World Health Organisation classifies individuals with a BMI greater than or equal to 30 as obese.<sup>3</sup>

**Overweight:** defined as abnormal or excessive fat accumulation that may impair health. Body mass index (BMI) is a simple index of weight-for-height ( $BMI = kg/m^2$ ) that is commonly used to classify obesity in adults. The World Health Organisation classifies individuals with a BMI greater than or equal to 25 as overweight.<sup>4</sup>

**Second-generation biofuels:** also known as advanced biofuels, the feedstock used to produce second generation biofuels are generally not food crops. The only time food crops can act as second generation biofuels is when they have already fulfilled their food purpose.<sup>5</sup>

**Sustainable Development Goals (SDGs):** the proposed framework for sustainable development succeed the Millennium Development Goals (MDGs) beyond the 2015 MDG target date. At the Rio+20 Conference, States agreed that the SDGs must inter alia build on commitments already made, be action oriented, easy to communicate, global in nature, aspirational, and universally applicable to all countries.<sup>6</sup>

**Sustainable Diet:** The FAO defines sustainable diets as those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources.<sup>7</sup>

**Undernutrition:** Proportion of the population whose dietary energy intake is less than a pre-determined threshold. This threshold is country specific and is measured in terms of the number

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<sup>1</sup> Cotula, Lorenzo and Sonja Vermeulen, Rebeca Leonard and James Keeley. *Land grab or development opportunity? Agricultural investment and international land deals in Africa*. FAO, IIED and IFAD, Rome, 2009. Online : <http://www.fao.org/3/a-ak241e.pdf>

<sup>2</sup> United Nations. *United Nations Millennium Declaration*. UN, 18 Sept 2000. Online : <http://www.un.org/millennium/declaration/ares552e.pdf>

<sup>3</sup> The World Health Organisation. *Fact Sheet N°311*. WHO, August 2014. Online : <http://www.who.int/mediacentre/factsheets/fs311/en/>

<sup>4</sup> The World Health Organisation. *Fact Sheet N°311*. WHO, August 2014. Online : <http://www.who.int/mediacentre/factsheets/fs311/en/>

<sup>5</sup> Biofuel.org.uk. *First-generation Biofuels*. Biofuel.org.uk, 2010. Online : <http://biofuel.org.uk/first-generation-biofuel.html>

<sup>6</sup> United Nations Sustainable Development Knowledge Platform. *Sustainable Development Goals: Open Working Group Proposal for Sustainable Development Goals*. Online : <http://sustainabledevelopment.un.org/index.html>

<sup>7</sup> FAO: *International Scientific Symposium Biodiversity and Sustainable Diets United Against Hunger*. Rome: FAO, 2010. P.1. Online: <http://www.fao.org/ag/humannutrition/23781-0e8d8dc364ee46865d5841c48976e9980.pdf>

of kilocalories required to conduct sedentary or light activities. Those with undernutrition are also referred to as suffering from food deprivation. Undernutrition is the outcome of poor absorption and/or poor biological use of nutrients eaten as the result of repeated infectious disease. It includes stunting, wasting, and micronutrient malnutrition (deficiencies in vitamins and minerals).<sup>1</sup>

**Vienna Declaration on Nutrition and Non-communicable Diseases in the Context of Health 2020:** Signed in 2013, the Declaration contains 18 commitments signed by Health Ministers seeking to face the challenges posed by the burden and threat of noncommunicable diseases (NCDs) and reaffirm commitment to existing European and global frameworks to address risk factors, notably unhealthy diet and physical inactivity.<sup>2</sup>

**Virtual Water:** is the amount of water that is embedded in food or other products needed for its production. For example, the production of one kilogram of wheat requires 1.000 litres of water. For meat, we need 5 to 10 times more.<sup>3</sup>

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<sup>1</sup> Food and Agriculture Organisation of the United Nations. *An Introduction to the Basic Concepts of Food Security*. FAO Food Security Programme, 2008. Online: <http://www.fao.org/docrep/013/a1936e/a1936e00.pdf>

<sup>2</sup> World Health Organisation Europe. *Vienna Declaration on Nutrition and Noncommunicable Diseases in the Context of Health 2020*. WHO, July 2013. Online : [http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0003/234381/Vienna-Declaration-on-Nutrition-and-Noncommunicable-Diseases-in-the-Context-of-Health-2020-Eng.pdf?ua=1](http://www.euro.who.int/__data/assets/pdf_file/0003/234381/Vienna-Declaration-on-Nutrition-and-Noncommunicable-Diseases-in-the-Context-of-Health-2020-Eng.pdf?ua=1)

<sup>3</sup> World Water Council. *Virtual Water Trade – Conscious Choices* World Water Council 2004, P.3 Online : [http://www.worldwatercouncil.org/fileadmin/wwc/Programs/Virtual\\_Water/virtual\\_water\\_final\\_synthesis.pdf](http://www.worldwatercouncil.org/fileadmin/wwc/Programs/Virtual_Water/virtual_water_final_synthesis.pdf)

## **ANNEX II – SIGNATORIES**

### **Organizations and Institutions**

ACCADEMIA NAZIONALE DI AGRICOLTURA  
ACRI – Associazione di Fondazioni e di Casse di Risparmio SpA  
AGGIORNAMENTI SOCIALI  
AIDEPI  
ALLEVAMENTO ETICO  
ALMA La Scuola Internazionale di Cucina Italiana  
ANBI Associazione Nazionale Consorzi di Tutela Gestione Territorio e Acque Irrigue  
ANGEM Ass. Naz. Ristoraz. Collettiva  
ARTE DA MANGIARE MANGIARE L'ARTE (AMMA)  
AVRDC – The World Vegetable Center  
BANCO ALIMENTARE  
BARILLA  
BIOVERSITY INTERNATIONAL  
CENTRO CULTURALE SAN BENEDETTO – MONASTERO DI SILOE  
CEREALIA - Il festival dei cereali  
CESVI  
CHEP Italia  
CiBi  
CIC - Consorzio Irrigazioni Cremonesi  
CIWF - Compassion in World Farming  
CNAPPC - Consiglio Nazionale Architetti, Pianificatori, Paesaggisti e Conservatori  
COLDIRETTI  
COMIECO  
COMUNE DI FORMIGINE  
COMUNE DI PARMA  
COMUNE DI ROSIGNANO MARITTIMO  
CONFAGRICOLTURA  
CONFCONSUMATORI  
CONSIGLIO NAZIONALE DEL NOTARIATO  
COOP  
COSTA CROCIERE  
EATALY  
EAT RESPONSIBLE  
EDENRED Italia  
ENEA  
EPODE International Network (EIN)  
FCRN - FOOD CLIMATE RESEARCH NETWORK  
FINDUS  
FISPMED ONLUS  
FONDAZIONE AIUTARE I BAMBINI  
FONDAZIONE BARILLA CENTER FOR FOOD & NUTRITION  
FONDAZIONE CASSA DI RISPARMIO DI FOSSANO  
FONDAZIONE MONTE DEI PASCHI DI SIENA  
FONDAZIONE SANTA CHIARA Onlus  
FONDAZIONE UNIVERDE

FOODTANK  
GIOCAMPUS  
GIUNTI EDITORE  
GLOBAL WATER FUND  
GREEN INNOVATION  
GRUPPO GABRIELLI  
GLI – GUSTOLAB INTERNATIONAL INSTITUTE FOR FOOD STUDIES  
iFREEZE  
INTERNATIONAL UNION OF NOTARIES  
JAMIE OLIVER FOOD FOUNDATION  
JEREMY COLLER FOUNDATION  
LEGAMBIENTE  
LIMES  
LINK 2007 Cooperazione in Rete  
MADEGUS – Maestri del Gusto  
MOIGE  
NATIONAL GEOGRAPHIC ITALIA  
NUTRAID  
ORICON Osserv. Ristoraz. Collettiva  
ORTICULTURA  
TA- ordine dei tecnologi alimentari Lombardia e Liguria  
OSPEDALE LUIGI SACCO MILANO  
QUI FOUNDATION  
REGGIO CHILDREN  
RURALIA – Associazione Italiana per il Recupero Unitario delle Realtà Agricole e dei Luoghi  
SATISFEITO  
SAVE THE CHILDREN  
SLOW FOOD  
STOP HUNGER NOW  
STOP WAISTING FOOD  
TONIC NETWORK BENESSERE  
TULLI Cereal Culture  
TRUE FOOD ALLIANCE  
UNAFPA  
UN’ALTRA IDEA DI MONDO – Associazione  
UNIMPRESA  
UNIVERSITA’ DEGLI STUDI DI PARMA  
UPI - Unione Parmense degli Industriali  
WASTED FOOD  
WISE SOCIETY  
WWF

**Experts and Opinion Makers**

Miguel Altieri – Professor, University of California  
Molly D. Anderson – Partridge Chair in Food & Sustainable Agriculture Systems, College of the Atlantic  
Paolo Bartolozzi – Former Member, European Parliament  
Jonathan Bloom – Journalist

## **Milan Protocol on Food and Nutrition – Update 31 December 2015**

Renata Briano – Member and Vice-Chair of the Fisheries Committee, European Parliament  
Daniel Chamovitz – Director, Manna Center for Plant Biosciences  
Paolo De Castro – Member and Coordinator of the Progressive Alliance of Socialists and Democrats in the Agriculture Committee, European Parliament  
Herbert Dorfmann – Member, European Parliament  
Adam Drewnowski – Director, Center for Public Health Nutrition and Professor of Epidemiology, School of Public Health, University of Washington  
Carlo Fadda – Senior Scientist, Biodiversity University  
Charles Feldman – Associate Professor, Montclair State University  
Kim M. Gans – Director, Community Health Promotion  
Tara Garnett – Environmental Change Institute, University of Oxford  
Mario Giampietro – Research Professor, ICREA  
Tiziano Gomiero – Institute of Environmental Science and Technology (ICTA), Universitat Autònoma de Barcelona  
Selina Juul – Founder, Stop Spild Af Mad  
Patrizia La Trecchia – Professor, University of South Florida  
Jan Lundqvist – Professor, Stockholm International Water Institute (SIWI)  
Ruth Oniang'o – Professor, Rural Outreach Africa  
Massimo Paolucci – Member, European Parliament  
Aldo Patriciello – Member, European Parliament  
Barry M. Popkin – Distinguished Professor of Nutrition, University of North Carolina  
Steven Satterfield – Chef and co-owner, Miller Union  
Mauro Serafini – Head of the Functional Foods and Metabolic Stress Prevention Laboratory, CRA  
Stella Thomas – Founder and Managing Director, Global Water Fund  
Duncan Williamson – Food Policy Manager, WWF UK