

The Barsac Declaration:

Environmental Sustainability and the Demitarian Diet

1. RECOGNIZING THAT:

Current agricultural production practices have multiple environmental consequences, including pollution threats to air, land and water, climate and biodiversity;

2. AFFIRMING THAT:

a. Global food security is a major challenge, dependent on the supply and use of synthetic nitrogen and other fertilizers;

b. Global energy security is expected to depend increasingly on the use of agricultural land and synthetic fertilizers to produce bioenergy and biofuels;

3. ACKNOWLEDGING THAT:

a. The farming of animals to produce food is fundamentally less efficient than the production of plant-based foods, due to losses of nutrients to the environment, because,

- i. the inclusion of animals in the system lengthens the chain from primary production to human consumption, thereby allowing more opportunities for nutrient and energy losses,
- ii. the animals increase the mobility of nitrogen, phosphorus and carbon forms, making it harder to reduce losses to the environment;

b. Rates of nitrogen pollution have increased substantially in many parts of the world, linked to increased human population, as well as increased *per capita* consumption of animal products;

c. The increased pollution of the environment from farming of animal products includes:

- i. nitrogen pollutants affecting air quality and biodiversity, including ammonia, nitrogen oxides, also leading to the formation of ozone and particulate matter,
- ii. greenhouse gas emissions, including methane, nitrous oxide and carbon dioxide,
- iii. nitrogen and phosphorus pollutants to water, including nitrate leaching and the pollution of coastal zones;

4. CONSIDERING THAT:

a. Nutrient losses from farming systems represent a financial loss to farmers of the investment in purchasing fertilizers, as well as a waste of the energy used to produce nitrogen fertilizers,

b. Several activities are already ongoing internationally under multilateral environmental agreements to foster the use of agricultural systems and measures that improve nutrient use efficiency and reduce nutrient losses, including the work of:

- i. the Global Partnership on Nutrient Management of the United Nations Environment Programme, and
- ii. the Task Force on Reactive Nitrogen under the Convention on Long-range Transboundary Air Pollution of the United Nations Economic Commission for Europe;
- iii. the Intergovernmental Panel on Climate Change linked to the United Nations Framework Convention on Climate Change;
- iv. the marine conventions, including the Helsinki Commission for the Baltic Sea, the Oslo and Paris Commission for the North-East Atlantic, the Barcelona Convention for the Mediterranean Sea and the Black Sea Convention;
- v. member states of the European Union through the implementation of several community directives for the reduction of pollution to air, including the Clean Air for Europe programme (CAFÉ) and National Emissions Ceilings Directive, to water, including the Nitrates Directive and the Water Framework Directive, as well as through community agri-environment policies, including the rural development programmes;

5. WE HERE AFFIRM THAT,

a. In addition to actions by governments, responsibility for the environment rests with individuals and that the personal choices of all of us make a difference;

b. Our own food choices have a significant effect on the environment, by altering the requirements for different agricultural activities;

6. ACKNOWLEDGING THAT:

- a. For many developed countries, individuals eat more animal products than is necessary for a healthy balanced diet, so that, for many people, reducing *per capita* meat consumption has the potential to give significant health benefits;
- b. In many developing countries, increased nutrient availability is needed to improve diets, while in other developing countries, *per capita* consumption of animal products is fast increasing to levels that are both less healthy and environmentally unsustainable;
- c. For the reasons outlined above, reducing *per capita* consumption of animal products in the developed world has the potential to improve nutrient use efficiency, reduce overall production costs and reduce environmental pollution;
- d. While vegetarianism and veganism are the preferred options for some, they represent an unwanted ambition for many people;
- e. There is a need to encourage options of medium ambition, making it easier for those who choose to reduce the consumption of animal products;

7. WE DECLARE OUR COMMITMENT TO:

- a. Encourage the availability of reduced portion sizes of meat and animal products, compared with current standards in developed countries, for the preparation of healthy meals,
- b. Implement this commitment through promotion of the 'demitarian' option, which we define as a meal containing half the amount of meat or fish compared with the normal local amount, combined with a correspondingly larger amount of other food products,
- c. Promote availability of the demitarian option when organizing conferences, workshops and other meetings, allowing those in attendance to choose between each of a:
 - i. normally offered meal,
 - ii. demitarian meal,
 - iii. vegetarian meal,
 - iv. vegan or other special dietary requirement,
- d. Promote the clear labelling of menu options, especially when buffet meals are served,
- e. Encourage the wider development of demitarian diets, as a contribution to both healthy eating and protection of the environment;

8. IN MAKING THIS COMMITMENT WE NOTE THAT:

- a. The demitarian approach complements the well known option of not eating meat on certain days of the week, offering additional flexibility in reducing the consumption of meat products;
- b. The choice to eat meat is an issue linked to personal responsibility, ethics and religion; reducing meat portion sizes through the demitarian approach encourages the idea of 'making meat special';
- c. Dairy farming activities also have significant impact on the environment; further research should be encouraged to analyze the relative roles of meat and dairy consumption choices in relation to both the environment and human health;
- d. While traditional agricultural practices play an important role in managing the rural environment, contributing significantly to cultural heritage, agriculture is under a period of rapid change in many countries with upscaling of farming operations potentially threatening this cultural heritage; the environmental risks and opportunities require further investigation;

9. THIS DECLARATION:

- a. Is a personal initiative developed by the undersigned scientists and other experts linked to the:
 - i. Nitrogen in Europe (NinE) research networking programme of the European Science Foundation,
 - ii. Biodiversity in European Grasslands: Impacts of Nitrogen deposition (BEGIN) research programme of the European Science Foundation,
 - iii. Task Force on Reactive Nitrogen (TFRN) of the UNECE Convention on Long-range Transboundary Air Pollution,
 - iv. International Nitrogen Initiative (INI),
 - v. COST Action 729 on Assessing and Managing Nitrogen in the Atmosphere Biosphere System in Europe,
 - vi. NitroEurope Integrated Project, funded by the European Commission;
- b. Was developed on 29 October 2009 at Barsac, France at the joint workshop of the NinE and BEGIN programmes, involving experts from the TFRN, INI, COST 729 and NitroEurope; it was drafted on 16-18 November 2009 during the INI Workshop on Nitrogen Deposition, Critical Loads and Biodiversity at Edinburgh, Scotland, involving experts from these networks; and was launched on

24 November 2009, Amsterdam, the Netherlands, during the third meeting of the Task Force on Reactive Nitrogen;

c. Shall be opened for public endorsement on 25 November 2009 at the following address:
<http://www.nine-esf.org/barsac-declaration>;

d. May be updated in future under the coordination of the Nitrogen in Europe (NinE) programme, in collaboration with the communities of the BEGIN programme, the Task Force on Reactive Nitrogen, the International Nitrogen Initiative, COST 729, NitroEurope and other partnerships.

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