CARNI Sostenibili

The scientific validity of the Environmental Hourglass is recognised: the academic world welcomes the model introduced by Sustainable Meat

- *The Environmental Hourglass represents graphically the environmental impact of the weekly diet*
- *The impact is expressed in greenhouse gas emissions (Carbon Footprint) and is relative to the category "Climate Change"*
- *In a balanced diet, the different categories of food contribute in almost equal manner to the environmental impacts*

Milan, 25th October, 2016 - The prestigious scientific environmental journal, the "**Science of the Total Environment**", recognised the scientific validity of the Environmental Hourglass approach, the new model introduced by (**Sustainable Meat**) – a project which unites the three associations representing all the meat sectors in Italy (cattle, pigs, poultry) - which puts into relation the consumption of the Mediterranean Diet with the environmental impact of the different foods eaten.

By means of the LCA (Life Cycle Analysis) method, that evaluates the set of interactions that a product has with the environment throughout its entire life cycle, and the two different dietary patterns - the Mediterranean Diet and the New Nordic Diet - the scientific authors **Maria M. Ulaszewska[1], Gloria Luzzani[2], Sonia Pignatelli[3] and Ettore Capri[4]** have demonstrated that the consumption of foods rich in protein (such as meat, fish, eggs, legumes, meats) have an environmental impact similar to those generated by the consumption of fruit and vegetables. Elaborated starting from the weekly consumption recommended by nutritional guidelines, multiplied by the average environmental impacts of the different food categories, the **Environmental Hourglass** approach - which represents the estimated amount of greenhouse gas emissions on a weekly basis, caused by the production and consumption of these foods - demonstrated that a consumption of meat, in amounts as prescribed by healthy diet guidelines, is sustainable for the environment and does not result in a significant increase of environmental impacts.

Although it is widely held that the environmental impact generated by meat consumption is higher than that of fruit and vegetables, in fact the recommended weekly amounts of **foods rich in protein** have an impact on greenhouse gasses which corresponds to 5.7 kg CO2 eq/week in the Mediterranean diet and 6.4 kg CO2 eq/week in the new Nordic Diet, similar to the environmental impact generated by the consumption of **fruit and vegetables** (5.32 kg CO2 eq/week for the Mediterranean diet and 6.04 kg CO2 eq/week for the new Nordic Diet). For **milk and dairy products**, however, both diets recommend an almost similar consumption (2.83 kg/week for the Mediterranean Diet and 3.23 kg/week for the new Nordic Diet), with greenhouse gas emissions of 5,54 kg of CO2 eq/week for the Mediterranean Diet and 5.24 kg CO2 eq/week for the new Nordic Diet. However the recommendations for the consumption of **potatoes, cereals and bakery products** differ considerably between the two diets: whilst the Mediterranean diet recommends a

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consumption of 1.75 kg/week of bread, 0.4 kg/week of potatoes - followed by a small amount of pasta, rice and bakery products - the new Nordic Diet recommends 1.69 kg/week of cereals and 1.08 kg/week of potatoes, generating GHG emissions of 4.20 kg CO2 eq/week for the Mediterranean diet and 7.09 kg CO2 eq/week for the new Nordic Diet.

As a result, the Environmental Hourglass approach demonstrates how food choices effect not only individual health but also the environment: when the hourglass loses its balanced form or, in particular when a food category is missing from a nutritional regime, the diet differs from food recommendations and the environmental impact changes. The Environmental Hourglass approach, which presents a reinterpretation of the food pyramid, surpasses the assessment of the environmental impact in absolute terms (CO2 emissions per kg of meat compared to a kg produced of other ingredients) and encourages a new approach that focuses the attention on recommended amounts being part of a proper and balanced diet.

The Sustainable Meat Project, through the Environmental Hourglass approach contained in the "The sustainability of meat in Italy" report, has revealed how a proper diet, from a nutritional and environmental point of view, recommends a moderate consumption of all foods. It illustrates furthermore that in a balanced weekly diet, such as the Mediterranean Diet based on the recommended portions by the Italian official nutritionists CRA-NUT, the different categories of foods have the same impact on the environment and guarantee the correct balance between health and environment.

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The report "The sustainability of meat in Italy" - and results contained in it - want to represent a starting point for a constructive and transparent discussion, free from preconceptions and determined by the desire for scientific and objective analysis. In fact, since 2012, a group of operators of the zootechnical industry has been organised to support scientific studies that have permitted us to create, as well as the publication of this report, the initiation of the "Sustainable Meat" project and therefore the creation of the website **www.carnisostenibili.it.** Founded by the common purpose of the three major trade associations**, Assocarni, Assica and UnaItalia**, the site aims to deal broadly with all topics related to the world of meat: an unprecedented project in Italy, with a formative and informative approach that wants to contribute to a balanced information on health, nutrition and sustainability.