The foundation of good health is a healthy diet.
Climate change, biodiversity loss, water pollution and soil loss are major and imminent threats to human and planetary health. Changing the type of foods that we eat, and the way that foods are produced, distributed, and marketed, is one of the most effective actions we can take to improve the health of individuals, and stave off environmental disaster.

Sufficient food is currently produced to feed all 7.5 billion people on earth, but it is unequally distributed. In 2017, some 820 million people went hungry and 2 billion suffered nutrient deficiencies. At the same time 2 billion people were overweight and 600 million were obese (Interacademy Partnership 2018).

The UN median projections have world population exceeding 11 billion by the end of this century (UN 2017).

dea.org.au
GREENHOUSE GAS EMISSIONS PER GRAM OF PROTEIN, BY FOOD TYPE

Average greenhouse gas emissions per unit protein, by food type measured in grams of carbon dioxide equivalents (CO\(_2\)e) per gram of protein. Average values are based on a meta-analysis of studies across 742 agricultural systems and over 90 unique foods.

<table>
<thead>
<tr>
<th>Food Type</th>
<th>Average CO(_2)e per Gram of Protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef / Mutton</td>
<td>221.63</td>
</tr>
<tr>
<td>Fresh Produce</td>
<td>37.17</td>
</tr>
<tr>
<td>Pork</td>
<td>36.33</td>
</tr>
<tr>
<td>Dairy</td>
<td>35.07</td>
</tr>
<tr>
<td>Poultry</td>
<td>31.75</td>
</tr>
<tr>
<td>Eggs</td>
<td>24.37</td>
</tr>
<tr>
<td>Rice</td>
<td>21.16</td>
</tr>
<tr>
<td>Wheat</td>
<td>4.62</td>
</tr>
<tr>
<td>Maize</td>
<td>4.42</td>
</tr>
<tr>
<td>Pulses</td>
<td>0.58</td>
</tr>
</tbody>
</table>

Source: Clark & Tilman (2017)
FOOD WASTE
• Roughly one-third of the food produced in the world for human consumption every year, approximately 1.3 billion tonnes, is lost or wasted.
• Per capita waste by consumers is between 95-115 kg a year in Europe and North America. In Australia, food waste makes up 35% of household and council waste.
• Food waste squanders resources and capital and produces unproductive greenhouse gas emissions.
• In developed countries the food waste tends to occur at the consumer stage as opposed to developing countries where the food waste tends to occur at the production and transport stage (FAO 2019).

WHAT CAN BE DONE?
The EAT Lancet Commission on Food, Planet and Health landmark report proposed a number of strategies to achieve healthy diets for everyone from a sustainable food system (The Lancet 2019). The report recommended reducing unhealthy foods such as red meat and added sugars by over 50% and increasing healthy plant-based foods. The dietary changes alone are projected to reduce diet related deaths by about 11 million annually.

Vegetarian and vegan diets are two healthy options within the planet health diet but are personal choices. If all animal products are removed from the diet, additional attention to meal planning is required to ensure adequate nutritional intake.

Strategies for a healthy, sustainable diet
• A sustainable diet doesn’t just mean environmentally sustainable – aim for dietary changes that are achievable, affordable, and enjoyable – eating patterns that can become part of your lifestyle long-term.
• Experiment with ways to cook and eat a wide variety of fresh vegetables, fruit, grains and nuts.
• Aim to fill up half your plate with vegetables.
• Aim to reduce your meat intake, especially red meats and processed meats. Reduce portion sizes, have meat-free days, and use alternatives such as legumes, nuts and seeds and seafood from sustainable sources.
• When eating meat, choose smaller amounts of high quality, sustainably-sourced meat.
• Limit your intake of processed foods, added fats, salt and sugars, and avoid ultra-processed foods altogether.

SOCIETAL LEVEL STRATEGIES FOR A HEALTHY, SUSTAINABLE FOOD SYSTEM
• Investment in research into the positive and negative environmental effects of agriculture; financial and practical assistance to help farmers adopt sustainable or regenerative farming methods; legislating against environmentally destructive agricultural practices.
• Research into and adoption of strategies to protect food systems from the effects of climate change.
• Strategies to ensure equitable food distribution locally and globally.
• Research into new foods, for example indigenous foods, artificial meats, and seaweed.
• Accounting for the associated costs of agriculture, such as pollution and biodiversity destruction, may need to be introduced (McMichael 2007).
• Strategies to reduce food waste.
• Research into the barriers and enablers of consumption of healthy and sustainable food at the individual level, leading to evidence-based action.
• Labelling systems which allow consumers to make choices based on health and sustainability profiles of foods.
• Support for urban food networks, urban farms and farmers markets, school kitchen gardens, community gardens, nutrition education in schools and for students of health sciences.
• Incorporate sustainability considerations into national dietary guidelines.

MORE INFORMATION
https://eatforum.org/planetary-health-recipes/
REFERENCES


FURTHER READING

This Fact Sheet is one of a series which summarise the salient facts on environmental issues that affect human health which can be found at https://www.dea.org.au/fact-sheets/