UNIVERSITY OF TECHNOLOGY SYDNEY

INSTITUTE FOR SUSTAINABLE FUTURES

Institute for Sustainable Futures

SUBMISSION TO THE PUBLIC CONSULTATION ON THE DRAFT APPENDIX TO THE AUSTRALIAN DIETARY GUIDELINES: THE DIETARY GUIDELINES THROUGH AN ENVIRONMENTAL LENS

2012

ABOUT ISF

The Institute for Sustainable Futures (ISF) is part of the University of Technology, Sydney, and was formed in 1997 to work with industry, government and the community to develop sustainable futures through research and consultancy.

Our mission is to create change toward sustainable futures that protect and enhance the environment, human well-being and social equity. We seek to adopt an inter-disciplinary approach to our work and engage our partner organisations in a collaborative process that emphasises strategic decision-making.

For further information visit: **www.isf.uts.edu.au**

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Submission to the public consultation on the

Draft Appendix to the Australian Dietary Guidelines:

The dietary guidelines through an environmental lens

INTRODUCTION

The Institute for Sustainable Futures welcomes the opportunity to comment on the Draft Appendix to the Australian Dietary Guidelines.

The recognition of the emerging interest in the environmental impact of our food choices in the 2003 edition of the dietary guidelines was a positive step. The Institute was therefore concerned when the environmental working group was disbanded prior to the release of the Draft Australian Dietary Guidelines and disappointed when no reference was made to the environment in the Draft.

The newest report by the Government's Australian Institute of Health and Welfare, *Australia's Food and Nutrition 2012*, states that, given the emerging challenges facing global food, the scope of nutrition science needs to be broadened to find a balance *"between equitably promoting human health and supporting ecological sustainability"*. Public consultation for the preparation of these Guidelines confirmed that many individuals and organisations are seeking information on the consequences of food choices on the environment to help inform people's decisions on what to eat, and to assist professionals providing dietary advice.

While Dietary Guidelines have been traditionally targeted to those interested in personal health and nutrition, evidence relating food production and consumption to environmental impacts requires guidelines to be connected to broader impacts. As this information is being included in response to a desire from Australians, we are disappointed that environmental issues and implications are not being integrated into the appropriate sections of the Guidelines and relevant documents, but are instead relegated to an Appendix, abrogating their priority and key importance.

We are further concerned with the tone taken by the Appendix regarding the evidence upon which recommendations are made, and the lack of detail provided to assist people in making sustainable dietary choices.

Tone of the Appendix

Contrary to the comments made in the G1 Background section of the Draft Appendix, that *"[t]he concept of sustainable dietary patterns is not new but it is a complex issue and there are many gaps in our understanding of what this may include within the Australian context"*, and that "*[t]he environmental implications of food choices involve new, often narrative evidence*", it can be strongly argued that research into the impacts of food systems on the environment is a well-established area and there is compelling evidence of links between certain agricultural practices and various negative environmental impacts in Australia and worldwide.

For example, Professor Sharon Friel, who contributed to submissions to the NHMRC proposed dietary guidelines, is one of the world's top experts on matters of food security and sustainability and is Professor of Health Equity at the National Centre for Epidemiology and Population Health at the Australian National University. Her research is policy-focused and in areas of global health equity; social determinants of health; climate change and health equity; food systems and food security; socio-environmental determinants of non-communicable diseases, and urbanisation and health equity. In January 2010 she was awarded an Australian Research Council Future Fellowship to investigate the interface between health equity, social determinants and climate change, based at the National Centre for Epidemiology and Population Health, The Australian National University (ANU).

By seeking to portray evidence concerning food and environment as generally "*narrative"* and juxtaposing this with the "*experimental evidence"* that nutritional science and epidemiology are based on, the Appendix not only ignores research such as that described above, but undermines the credibility of the information that follows in section G3.

This pejorative language is continued with reference to "*rudimentary*" measurement of the environmental impact in some areas in the food industry. While there may not yet be consistency in

the methods of life-cycle analysis undertaken across the board in the food industry, this only prevents quantified comparisons of the exact levels of impact of different food sources – it does not imply that those impacts are not significant – and yet this is precisely what the paragraph in question conveys.

Lack of detail

Section G2 "The nature and challenges of the evidence base" in the draft Appendix states, *"Assessing the relationship between the food system and its impact on the environment requires evidence from agricultural, environmental and economic disciplines, as well as research from primary and other industry bodies. Government reports are also useful, especially in areas with policy implications such as carbon"*.

As per this statement, we remind the NHMRC that our Australian Government has produced a report that provides compelling and credible evidence of the link between meat consumption and production and negative environmental impacts, specifically greenhouse gas emissions.

The Australian Department of Climate Change's National Inventory Report (2009)[1] states that the agriculture sector produces most of Australia's methane and nitrous oxide emissions with agriculture producing an estimated 15.5% of net national emissions between 2008 and 2009. Enteric fermentation, primarily from cattle and sheep, contributed 64.6% of agricultural emissions with manure management contributing 3.9%. This provides a clear indication of the significant contribution of the livestock (cattle and sheep) industry to greenhouse gas production. Recalculations of the greenhouse warming potential of methane in the short term suggest that direct emissions from agriculture could actually account for 30% of Australia's greenhouse gas emissions, but regardless, the case is clear that red meat consumption has serious environmental implications.

McMichael et. al (2007) [writing in The Lancet][2], reported: "National and international climate change policies all accept a target that greenhouse-gas emissions from agriculture in 2050 should be limited to no more than their 2005 levels. This acceptance recognizes that this target would necessitate a reduction in the projected globally aggregated demand for animal products to an average (and more evenly shared) per-head intake of, at most, 90 g meat per day. Not more than 50 g of this should come from red meat from ruminant animals. Acceptability of this policy should be enhanced by the expected health gains, both for current high-consuming populations, as their consumption reduces, and for low-consuming populations, as their consumption increases to an agreed, globally shared, but modest, level."

The 1998 to 1999 ABS apparent consumption figures[3] suggest average meat consumption is 304g per day, of which at least 126g is from beef and lamb. The 1995 to 1996 National Nutrition Survey[4] recorded men and women eating an average of 158g of meat (lamb, beef, veal, pig and poultry) per day. Of the 158g per day, 114g was from lamb, beef, veal and pig. With poultry included, men consumed on average, 200g and women, 116g. This is well above the Lancet recommendations.

Ensuring that Australian nutritional guidelines are cognizant of the impact of livestock production and the Lancet recommendations by, at the very least, including them in the Appendix would help contribute to positive environmental outcomes, just as the Australian Institute of Health and Welfare's *Australia's Food and Nutrition 2012* requires.

In addition to greenhouse gas emissions, worldwide, livestock and meat production have been identified as major contributors to intensive water use, high phosphorus use, land degradation,

[1] http://www.climatechange.gov.au/publications/greenhouse-acctg/~/media/publications/greenhouse-acctg/national-inventory-report-2009-vol3.pdf
[2] http://www.thelancet.com/journals/lancet/article/PIIS0140673607612562/abstract
[3] http://www.abs.gov.au/ausstats/abs@.nsf/productsbyCatalogue/123FCDBF086C4DAACA2568A90013939A?OpenDocument
[4] http://www.abs.gov.au/ausstats/abs@.nsf/mf/4802.0

threats to food yields and loss of biodiversity, and much of this research was discussed in the submissions made to the consultation on the Dietary Guidelines themselves.

We are disappointed therefore, that so little of this is reflected in the information contained in the draft Appendix. The majority of the narrative reads as a warning for the very little amount of information provided.

While we therefore hope that the tone of the Appendix will be corrected to better reflect the integrity of much of the research that is carried out, we also recommend that the following edits be made to the 'Practical Recommendations' column of section G3 to improve the amount of useful information provided by the Appendix.

Guideline	Existing Draft Content	ISF Recommendation
Guideline 1		
To achieve and maintain a healthy weight, be physically active and choose amounts of nutritious food and drinks to meet your energy needs. • Children and adolescents should eat sufficient nutritious foods to grow and develop normally. They should be physically active every day and their growth should be checked regularly. • Older people should eat nutritious foods and keep physically active to help maintain muscle strength and a healthy weight.	*Avoid overconsumption of food and drinks, as this involves greater use of natural resources and puts more pressure on the environment, including disposal of waste food and packaging.*	Eating more food than you need is actually a form of waste similar to buying food and then disposing of what you don't consume. This is because the natural resources and energy used to create the food and its packaging were not actually required. Understanding the amount and types of food we need to meet nutritional needs and choosing these conserves natural resources and energy and minimizes waste, including excess packaging that has to be disposed of.
Guideline 2		
Enjoy a wide variety of nutritious foods from these five groups every day: • Plenty of vegetables, including different types and colours, and legumes/beans • Fruit	*Within food groups, choosing a variety of nutritious foods may minimise environmental impact and promote biodiversity in food production.* *Choose a variety of seasonal and local fresh fruit and vegetables to reduce environmental impact.* *Fruit and vegetables do not need to be perfectly shaped nor unmarked to provide nutritional value.*	Within food groups, choosing a variety of nutritious foods may minimise environmental impact and promote biodiversity in food production. Choose a variety of seasonal and local fresh fruit and vegetables to reduce environmental impact. Out-of-season fruits and vegetables either require required additional amounts of energy to produce the appropriate environment to grow them out-of season, or have a high number of food miles (and associated transport emissions) attached to them (as do imported fruits and vegetables.) Fruit and vegetables do not need to be perfectly shaped nor unmarked to provide nutritional value. Avoiding all but the most perfect looking fruit results in waste from the disposal of rejected fruit and can also lead to the cultivation of a small number of cultivars reducing biodiversity or even leading to genetic modification.

Guideline	Existing Draft Content	ISF Recommendation
• Grain(cereal) foods, mostly wholegrain and/or high cereal fibre varieties, such as breads, cereals, rice, pasta, noodles, polenta, couscous, oats, quinoa and barley	*Varying the types of grain foods you eat may reduce their overall environmental impact.*	Choosing less-refined cereals and grains (such as wholegrain cereals and breads, brown rice and whole-wheat pasta) reduces the amount of energy required in processing and has health benefits as well. As above, varying the types of grain foods you eat (by including grains such as polenta, couscous, oats, quinoa and barley) can also promote biodiversity in food production.
• Lean meat and poultry, fish, eggs, tofu, nuts and seeds, and legumes/beans	*Choose protein sources that have a lower environmental impact, such as pork, poultry, eggs, tofu, tempeh, nuts and seeds, and legumes/beans. Choose fish and other seafood from stable stocks.*	Choosing protein sources that have a lower environmental impact, such as pork, poultry, fish from sustainable sources, eggs, tofu, tempeh, nuts and seeds, and legumes/beans reduces greenhouse gas emissions, particularly methane which is over 20 times more effective in trapping heat in the atmosphere than carbon dioxide (CO_2) over a 100-year period. Choosing plant-based sources of protein over animal sources also reduces the amount of water required. Try beans and peas (kidney, pinto, black, or white beans; split peas; chickpeas; hummus), soy products (tofu, tempeh, veggie burgers), nuts and seeds. (They are also naturally low in saturated fat and high in fibre.) Avoid oversized portions and keep serving sizes of meat, red in particular, in line with the Australian Dietary Guidelines, which will also reduce unnecessary waste of resources and emissions through overconsumption.

Guideline	Existing Draft Content	ISF Recommendation
• Milk, yoghurt, cheese and/or their alternatives, mostly reduced fat (reduced fat milks are not suitable for children under the age of 2 years).	*Consuming quantities in line with the Australian Dietary Guideline for this food group, and consuming a mixture of milk, cheese and yoghurts, rather than rely on any one food, will help minimise the environmental burden associated with consumption of foods from this group.*	Consuming quantities in line with the Australian Dietary Guideline for this food group will reduce unnecessary consumption and associated greenhouse emissions and water wastage. Obtaining calcium from a mixture of milk, cheese and yoghurts and plant-based sources, will help minimise the environmental burden associated with consumption of foods from this group. Good plant-based sources of calcium include soybeans and soynuts, broccoli, bok choy, collards (cabbages), Chinese cabbage, kale, mustard greens, turnips, okra, tahini, amaranth. These plant-based sources also contain vitamins C and K, potassium and magnesium, which are all important for bone health.
And drink plenty of water	*Drink tap water rather than bottled water to decrease production and disposal of plastic bottles.*	Drink tap water rather than bottled water to reduce the production and disposal of plastic bottles.
Guideline 3		
Limit intake of foods containing saturated fat, added salt, added sugars and alcohol. a. Limit intake of foods containing saturated fat such as many biscuits, cakes, pastries, pies, processed meats, commercial burgers, pizza, fried foods, potato chips and crisps and other savoury snacks. • Replace high fat foods which contain predominantly saturated fats such as butter, cream, cooking margarine, coconut and palm oil with foods which contain predominantly polyunsaturated and monounsaturated fats such as oils, spreads, nut butters/pastes and avocado. • Low fat diets are not suitable for children under the age of 2 years. b. Limit intake of foods and drinks containing added salt. • Read food labels to choose lower sodium options	*Avoiding foods produced with high levels of added sugar, salt or fats such as packaged snacks, confectionery and many sugar-sweetened drinks can benefit health and reduce the environmental impacts associated with their production.*	

Guideline	Existing Draft Content	ISF Recommendation
among similar foods. • Do not add salt to foods in cooking or at the table. c. Limit intake of foods and drinks containing added sugars such as confectionary, sugar-sweetened soft drinks and cordials, fruit drinks, vitamin waters, energy and sports drinks. d. If you choose to drink alcohol, limit intake. For women who are pregnant, planning a pregnancy or breastfeeding, not drinking alcohol is the safest option.		
Guideline 4		
Encourage, support and promote breastfeeding	*Breastfeeding does not put any demands on environmental resources.*	
Guideline 5		
Care for your food; prepare and store it safely	*Appropriate storage of food helps avoid food and packaging waste.*	[Insert]

G4 PRACTICAL TIPS

Tip	Description	Comment
1 Buy and consume foods and drinks that are consistent with the Australian Dietary Guidelines	*Eating a diet that follows the Australian Dietary Guidelines is sensible from both a health and environmental perspective.*	
2 Consider what you buy: avoid overbuying and overconsumption of food and minimise waste	*This minimises unnecessary use and degradation of natural resources and avoids disposal of excessive waste.*	Buy only what you need, check use by dates regularly. This minimises unnecessary use and degradation of natural resources and avoids disposal of excessive waste.
~~*3 Minimise wastage*~~	~~*Buy only what you need, check use by dates regularly.*~~	
4 Consider how you buy, store, prepare and dispose of food	*Minimise impact by reducing shopping trips by car, only refrigerating those foods which require refrigeration, eating raw food when appropriate, incorporating left-over food into subsequent meals and introducing home composting for disposal of food waste.*	
5 Consider the packaging of food	*Packaging can protect and preserve food and help minimise food waste, but excessive packaging can have a detrimental environmental impact, particularly when production involves high input of resources and the packaging is not disposed of appropriately. Look for recycling symbols on packaging labels and use environmentally beneficial waste disposal schemes, such as kerbside recycling.*	
Recommended additions:		
Choose the greatest variety of food types to meet your nutritional needs		Choosing a variety of foods promotes biodiversity in food products, and lessens concentrations of particular environmental problems.
Choose less refined and processed food - buy products as close as possible to their natural state.		Refining and processing food requires energy. Choosing foods in their natural state lessens their embodied energy.
Swap out some animal products for plant-based foods		Animal products have a larger land and water footprint and result in higher greenhouse gas emissions than plant foods.

Eat fish that is sustainable		A large range of seafood is currently being over-fished, risking depletion of fish stocks. Use the Australian Marine Conservation Society's Sustainable Seafood Guide (available at www.sustainableseafood.org.au) or look for the Marine Stewardship Council certification, particularly on tinned tuna and salmon.

CONCLUSION

We believe that environmental implications of food choices should be integrated into dietary guidelines as stated by *Australia's Food and Nutrition 2012*. In the absence of this we recommend that the information provided in the Appendix should be strengthened and the undermining tone of the language should be changed to provide a more balanced view of the research.

While we acknowledge that the Dietary Guidelines are specifically targeted for nutritionists, and it could therefore be deemed appropriate for this information to be included in an Appendix, the *Australian Guide to Healthy Eating* is targeted at the general public. As this information on environmental implications is being included in the dietary guidelines in response to a desire from Australians, it is imperative that it is present and integrated into the main sections of the Guide.

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