Climate Change, Food Aid, and Loss of Traditional Foods

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Climate Change: Shifting Foods

Climate change is may negatively impacting indigenous cultures access to traditional foods (Damman et al., 2008). The Wabanaki people of the northeastern United States are having difficulty maintaining cultural food practices due to shifting range, quality, and quantity of berries (Lynn, 2013). The Black River Forest Nation, who depend on berries, moose, and specific tree species for traditional food ceremonies, are noticing lower quantities of these foods, noting climate change as a possible source (CIER, 2007). The Gigta'at tribe of British Columbia is unable to dry their edible seaweed on rock beds due to unseasonably rainy periods (Turner, 2009).

Fig. 3. Edible seaweed (*Porphyra abbottiae*) spread out in squares to dry on the rocks, at K'yel.

Source: (Turner and Clifton,, 2009)

Food Security and the Food Aid

Indigenous peoples are the most impoverished ethnic group in the United States, at approximately 28% (Macartney et al., 2013). In Canada, food security is a major concern among indigenous tribes. Preschoolers self-identify as being food insecure (Egeland et al. 2010). To combat food security among indigenous tribes, the United States Department of Agriculture started an alternative to Supplemental Nutrition Assistance Program, the Food Distribution Program on Indigenous Reservations (Matsumoto, 1994). In 2014, over $100 million was appropriated for FDPIR, being utilized approximately 75,000 individuals of 276 tribes (USDA, 2014).

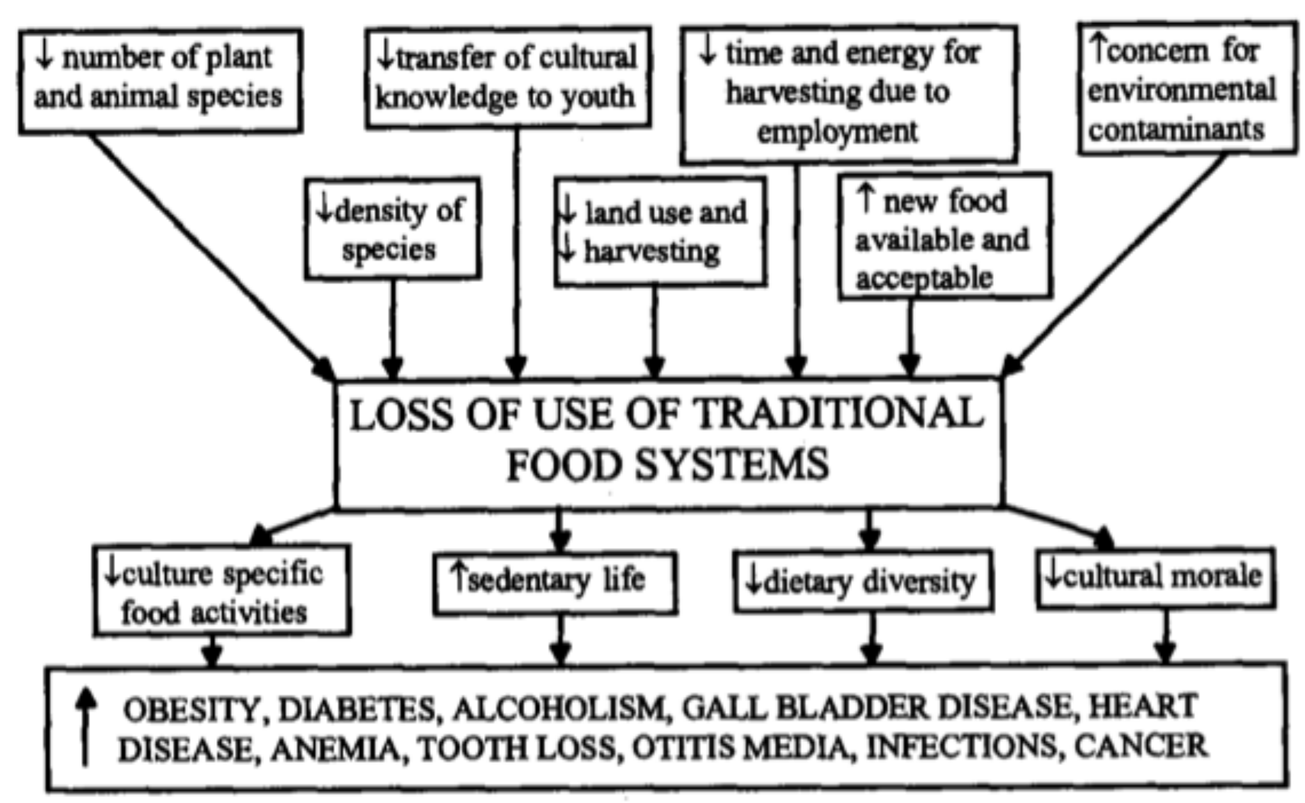

Figure 1 Factors influencing dietary change and consequences of change for indigenous peoples.

Source: (Kuhnlein et al, 1996).

Health Issues

American Indians suffer from higher rates of diet related disease compared to the general population. Dietary Guidelines call for two to three servings of dairy to satisfy calcium requirements, while it is estimated that 75% of American Indians are lactose intolerant (Mihesuah, 2003). Diabetes and obesity are also prevalent among indigenous tribes across the country. Obesity is associated with cheap, energy dense foods, alongside a lack of access to healthy, affordable foods (Fieldhouse and Thompson, 2012). The Pima tribe of Arizona has the highest rates of diabetes in the world, at a staggering 50% of the Pima population diagnosed (NIH, 1998).

Moving Forward

Indigenous tribes are in danger of losing their traditional foods not just from climate change, but from food aid intervention as well. The Jujuy tribe of Argentina is in this exact position; though starvation is being avoided through food aid, a healthier traditional diet is suppressed, food assimilation continues, and dependence on government food aid grows (Damman et al., 2008). Funds should be attributed, alongside FDPIR, to encourage indigenous populations to pursue efforts to rebuild their traditional foodscapes. Allowing indigenous tribes to re-establish their traditional foods may address climate change effects, reduce diet related disease, and maintain food traditions.

Sources:

Damman, Siri, Wenche Barth Eide, and Harriet V. Kuhnlein. 2008. "Indigenous Peoples' Nutrition Transition in a Right to Food Perspective." Food Policy 33 (2): 135–55. doi:10.1016/j.foodpol.2007.08.002.

Egeland, Grace M, Angela Pacey, Zirong Cao, and Isaac Sobol. 2010. "Food Insecurity among Inuit Preschoolers: Nunavut Inuit Child Health Survey, 2007-2008." CMAJ : Canadian Medical Association Journal = Journal de l' Association Medicale Canadienne 182 (3): 243–48. doi:10.1503/cmaj.091297.

Fieldhouse, Paul, and Shirley Thompson. 2012. "Tackling Food Security Issues in Indigenous Communities in Canada: The Manitoba Experience." Nutrition & Dietetics 69 (3): 217–21. doi:10.1111/j.1747-0080.2012.01619.x.

Kuhnlein, H V, and O Receveur. 1996. "Dietary Change and Traditional Food Systems of Indigenous Peoples." Annual Review of Nutrition 16 (January): 417–42. doi:10.1146/annurev.nu.16.070196.002221.

Lynn, Kathy, John Daigle, Jennie Hoffman, Frank Lake, Natalie Michelle, Darren Ranco, Carson Viles, Garrit Voggesser, and Paul Williams. 2013. "The Impacts of Climate Change on Tribal Traditional Foods." Climatic Change 120 (3): 545–56. doi:10.1007/s10584-013-0736-1.

Macartney, By Suzanne, Alemayehu Bishaw, and Kayla Fontenot. 2013. "Poverty Rates for Selected Detailed Race and Hispanic Groups by State and Place :", 2007–11.

Mihesuah, Devon A. 2003. "Decolonizing Our Diets By Recovering Our Ancestors' Gardens."

Matsumoto, Masao. 1994. A unique food assistance program serves American Indians. FoodReview, 1056327X,, Vol. 17, Issue 3

National Institute of Health (NIH). 1998. Building Healthy Hearts for American Indians and Alaska Natives: A Back- ground Report. Washington, D.C.

Resources, Centre for Indigenous Environmental. 2007 (CIER). "Climate Change Impacts on Abundance and Distribution of Traditional Foods and Medicines – Effects on a First Nation and Their Capacity to Adapt."

Turner, Nancy J., and Helen Clifton. 2009. "'It's so Different Today': Climate Change and Indigenous Lifeways in British Columbia, Canada." *Global Environmental Change* 19 (2): 180–90. doi:10.1016/j.gloenvcha.2009.01.005.

USDA, Nutrition, Nutrition Program, and Fact Sheet. 2014. Food Distribution Program on Indian Reservations.