Title: Addressing Unique Drivers of United States Household Food Waste

Objective: Recommend strategies and tools to reduce household food waste in the United States, based upon a comparative analysis of households in the United States and in other developed countries with less per capita food waste.

Background:

Sustainable Development Goal 12.3 calls for a halving of food waste at retail and consumer level, and a reduction of food loss, from the farm up to and excluding the retail sector, by 2030. At consumer and retail level alone, an estimated 17% of available food is wasted, while the number of people affected by hunger rose to 828 million in 2021, an increase of about 46 million since 2020, while three billion people are unable to afford a healthy diet. Food loss and waste results in more than $1 trillion/year in economic losses, depressing farmer incomes and squeezing family budgets. This food that is not eaten consumes a quarter of the world's freshwater use by agriculture, is grown on a farmland area greater than the size of China and generates 8-10% of global greenhouse gas emissions.

UNEP, as custodian of SDG 12.3 indicator the Food Waste Index and mandated by UNEA Resolution 4/2, is working with governments and stakeholders to halve food waste, supporting research and strategic interventions in high-impact areas.

In 2015, the United States set the *National Food Loss and Waste Reduction Goal* to halve food loss and waste by 2030, in line with the United Nations *Sustainable Development Goal Target 12.3*; however, the United States, together with UNEP, would like to accelerate progress, which has not yet been significant. Currently data suggests that the U.S. wastes more food and more food per person than most other countries. In addition, the average environmental impact of each unit of U.S. food waste is greater than that of many other countries, as the U.S. wastes more food downstream and more animal products than the global average.

Fortunately, many tools and strategies – including programs, direct-to-consumer messaging and interventions, and changes to retail environment – have proven successful in reducing household food waste in developed countries in Europe, Asia, North America, and Oceania. These tools and strategies could be deployed in the United States; however, demographic, cultural, business and economic, and other differences between the U.S. and other countries may limit their adoption or effectiveness. This project will (a) assess which strategies and tools used by other countries may be effective "off-the-shelf" in the U.S., (b) recommend customizations to existing tools and strategies to improve their effectiveness in the United States, and (c) suggest additional strategies and tools to address unique drivers of food waste by U.S. households.

Analysis should be limited to countries designated as "high income" by the World Bank and to tools and strategies to encourage prevention (rather than recycling) of household food waste. Care should be taken not to duplicate existing work in the peer-reviewed literature or by organizations such as ReFED, UNEP, World Resources Institute, or Natural Resources Defense Council.

Activities:

Selected applicants will address the following research questions:

(1) How do key food-related behaviors, drivers of food waste, and other qualities of households and consumer environment related to food and food waste in the U.S. compare to those of other high-income countries? How might these similarities and differences impact efforts to reduce household food waste? Qualities could include factors such as demographics (e.g., household size, socio-economic status, age), built environment (e.g., proximity to grocery stores, refrigerator size and features), culture (e.g., attitudes towards food, types of foods commonly consumed, elements related to eating habits such as eating meals with others), trust in government and other communicators, and economics (e.g., price of food relative to income).

(2) What tools and strategies that have been successful in reducing household food waste in other high-income countries would be feasible to deploy in the United States at federal, state, local or community level? How should these tools and strategies be modified to be more effective in the United States? What additional tools and strategies should be developed to address unique qualities of U.S. households and the U.S. consumer environment or unique drivers of U.S. household food waste, relative to households in other high-income countries. Proposals should include initial or pilot phase testing of recommended tools and strategies.

Recognizing there is variation among households within a country, individual recommendations may be focused on all U.S. households, or for substantial segments of U.S. households, such as low- or high- income, small or large, or urban or rural households, and where possible for key segments of the population that have been identified as high food wasters in other high-income countries (e.g. families with young children, single person households, etc.).

Deliverable: Report summarizing project methodology and findings.

Timeline: Within one year of award.

Responsible Officer: Clementine O'Connor, UNEP