World Wildlife Fund Request for Proposals: Food Loss Implications in Regenerative Agriculture

I. Background of Tendering Organization & Need

As the world's leading conservation organization, World Wildlife Fund's (WWF) mission is to conserve nature and reduce the most pressing threats to the diversity of life on Earth. Our vision is to build a future in which people live sustainably and in harmony with nature. As part of the broader Food and Freshwater team within the organization and Food Practice within the organization, the Food Waste program seeks to freeze the footprint of food by fully utilizing what is grown to both optimize land currently under production and improve food insecurity. WWF takes a "prevention first" approach to managing food loss and waste paired with donating edible food that cannot be prevented while advocating for 100% diversion of food from landfills.

An estimated 2.8 billion tons of food (nearly 40% of what's produced) goes uneaten around the world each year.[1] Of that total, 1.3 billion tons of food (15% of all food produced globally) is lost on farms during, around, and after harvest. At a time when biodiversity and ecosystem vitality are declining rapidly due to a changing climate and over-utilization of our natural resources, understanding how and where loss occurs in agriculture is integral to mitigating the environmental impact of the food system. We no longer have time, or space, to accept the current levels of food loss and waste as the *cost of doing business*.

At the same time there is growing evidence that healthier soils can improve the health and resiliency of crops,[2] accelerating the current transition to regenerative agriculture. Yet in this transition, it is imperative that regenerative systems do not produce the current levels of loss, in which up to 40% of specialty crops, and 20% of row crops, are lost on farms (based on WWF-US research). By including a focus on measuring and reducing loss in the regenerative transition, growers can utilize more of what's planted, lower input costs, and increase their financial viability—all while helping to reduce land conversion pressures and improve ecosystem services through more efficient natural resource use.

To further investigate the potential of adding food loss and waste as a focus area within regenerative agriculture, WWF is issuing a call for proposals to support data collection on specialty crop and row crop farms transitioning to regenerative principles.

II. Project Description Summary

Simply put: a system cannot become regenerative in which up to 40% of specialty crops and 20% of row crops are lost, and limited research has been conducted at the intersection of food loss and regenerative agriculture. WWF's Food Loss and Waste team is therefore actively researching post- and pre-harvest loss on regen ag farms (for specialty and row crops) to develop a business case for growers and buyers to better understand what the transition to regen ag looks like (both in successes, challenges, and measurable impacts financially and environmentally), and how an added focus on reducing losses can assist this transition.

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[1] https://files.worldwildlife.org/wwfcmsprod/files/Publication/file/6yoepbekgh_wwf_uk__driven_to_waste___the_global_impact_of_food_loss_and_waste_on_farms.pdf?_ga=2.87574424.1865793803.1659971977-633673847.1638558752

[2] Bowles, Timothy M., Maria Mooshammer, Yvonne Socolar, Francisco Calderón, Michel A. Cavigelli, Steve W. Culman, William Deen et al. "Long-term evidence shows that crop-rotation diversification increases agricultural resilience to adverse growing conditions in North America." *One Earth* 2, no. 3 (2020): 284-293.

To carry out this research, WWF will work closely with producers, companies, and organizations implementing regenerative production systems to measure post-harvest and pre-harvest loss against environmental performance indicators such as soil health, water infiltration, biodiversity, and other conservation measures. Given the sensitivity of these data points, WWF will collect both secondary and primary data, which will be anonymized and aggregated for the study where applicable.

By 2024, WWF's findings will publish its final business case that can inform growers of the potential impacts on the quality and quantity of food production that will occur at the onset of regenerative farming. Our overarching goal with this business case is to create an accessible science-based study that clarifies the changes in yield and food loss that occur over time during the implementation of regenerative growing methods. Through this project, WWF will inform best practices in food loss and waste prevention as regenerative agriculture becomes a more widely explored climate solution by showing:

- What the transition looks like for growers, including early stage environmental benefits, major costs, and ongoing challenges;
- How the transition to regenerative ag impacts yield and on-farm loss, and comparing this to previous on-farm measurements in WWF's No Food Left Behind research;
- The key loss drivers and role of regenerative principles to help reduce those losses; and
- The best practices buyers can adopt to support farmers in transitioning to regenerative agriculture and reducing loss

III. Scope of Work

WWF seeks an (agroecology research specialist) to help assist in the following activities:

1. Collect data on-farms on environmental indicators and regenerative principles being implemented, yield and yield gap data, and estimations of on-farm loss that's occurring during transition.
2. Identify key drivers of food loss and the role of regenerative principles to help reduce those losses.
3. Conduct regular and independent communication with WWF project partners to acquire food loss data measurements and report on their regenerative management practices.
4. Conduct interviews to understand challenges farmers face, plans for regenerative integration through the years, and other anecdotal evidence to provide clarity to producers who are looking to transition.
5. Work with existing farm partners to collect data that is not already being collected by the farm, and is necessary for analysis (i.e. post-harvest losses, or biodiversity)
6. Meet regularly (bi-weekly) with WWF and report on progress achieved, lessons learned, and planning/logistics for ongoing meetings with participating growers and buyers.

IV. Desired Qualifications and qualities

- Experience and competency with data management and on-farm/in-field data collection (providing examples of previous agriculture-based data analysis and work with growers)
- Excellent communication and project management skills to carry out this work independently and remotely with WWF, with proven ability and flexibility to work effectively with growers
- Preferred: Existing network of farmers

- Preferred: Master's Degree preferred in a related field (such as Agroecology, Ecology, and Environmental Science)

V. Deliverables
WWF intends to complete this business case and its accompanying research by Spring 2024. The consultant will assist in the collection and analysis of data from~ 2-3 specialty crop and ~2-3 row crop farms transitioning to regenerative agriculture. The consultant will collaborate with WWF staff and farm partners on data collection, but also bring research expertise in the areas of biodiversity. At the conclusion of their role, the consultant will assist with the development of the business case by analyzing the trends and conclusions of key data sets.

VI. Timeline

Action Items	**Date**
Planning calls with WWF and farm/company partners	December 2022 - February, 2023
In-field research	March 2023 - May 2024
Bi-weekly/monthly check-ins	Beginning December 2023
Support of business case developing	June 2024

The deliverables of this project are on-going, as we expect data for the different crop types, seasons, and harvest cycles to come in throughout the year. WWF will schedule regular calls conducive to the consultants time in the field.

VIII. Application Process
All proposals are evaluated on their own merits, and only those that meet the criteria above will be considered. Please attach a description of your qualifications which should include a list of your credentials, a short description of research experience, and (optional) link or attachments of any examples of previous similar work.

Please submit proposals to **leigh.prezkop@wwfus.org** by **November 21, 2022**, with the heading "**Food Loss Implications in Regenerative Agriculture Consultant Proposal**" in the subject line of the email.

All of WWF's food loss and waste projects are viewed through the lens of addressing larger systemic food inequities experienced by communities that face barriers, such as immigrants, people of color, and Indigenous peoples. Our aim is to ensure that our projects maximize food use, advance circular systems, contribute to little to no land conversion, and engage in practices that elevate diversity, equity, and inclusion. We welcome the opportunity to collaborate with diverse actors on this work.

We look forward to receiving your proposal!

Sincerely,

Leigh Prezkop

Senior Program Officer