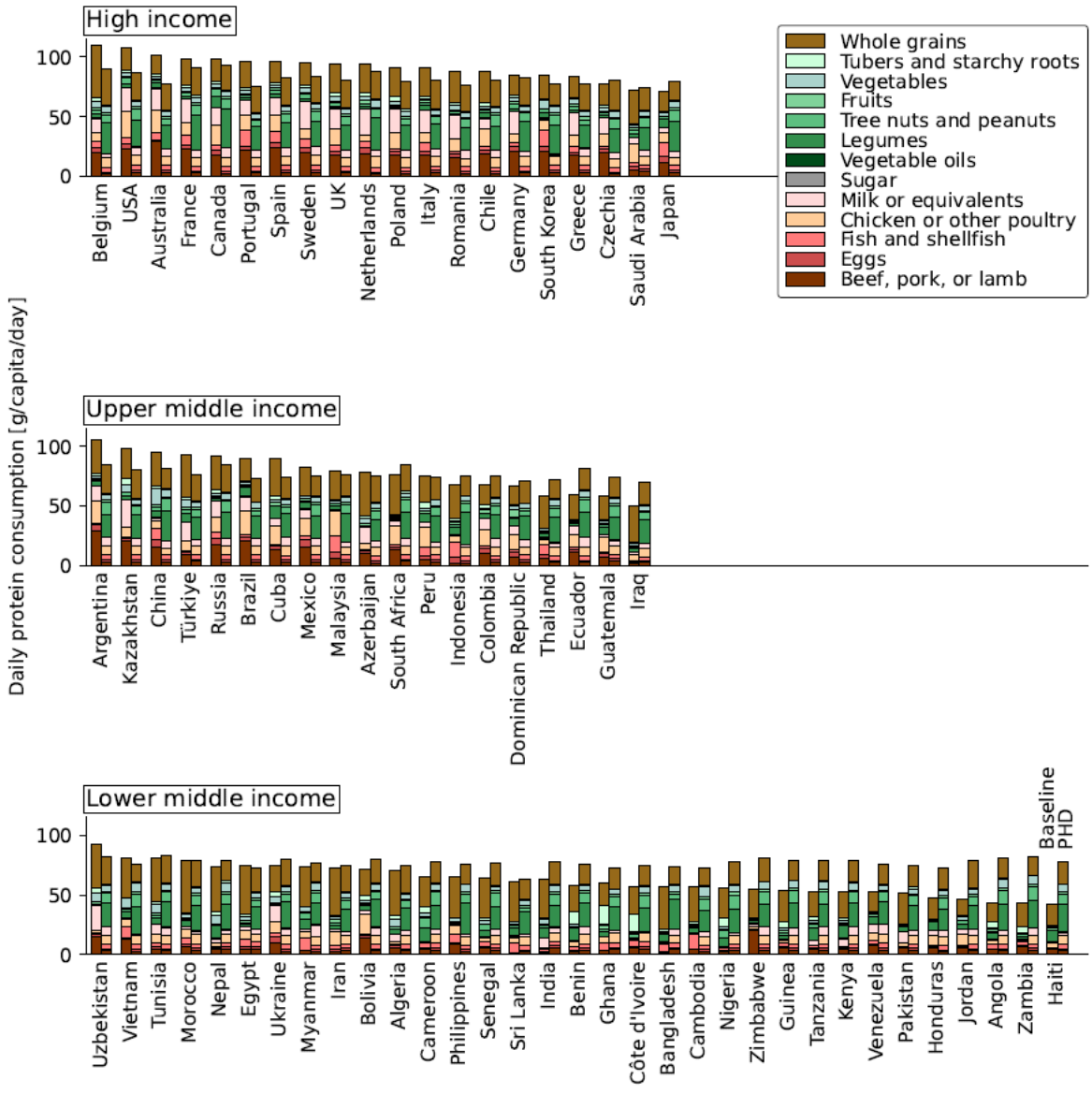
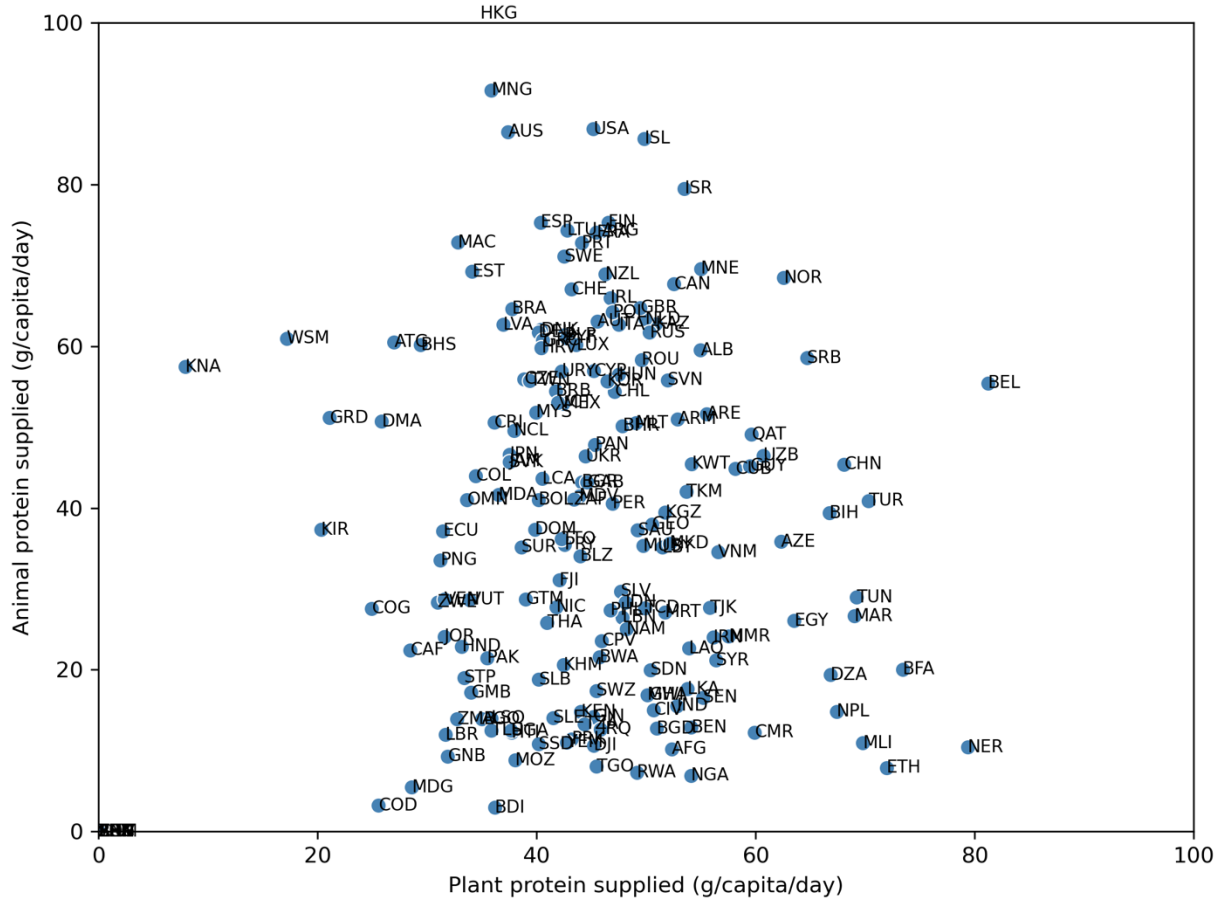
Supplementary Information:

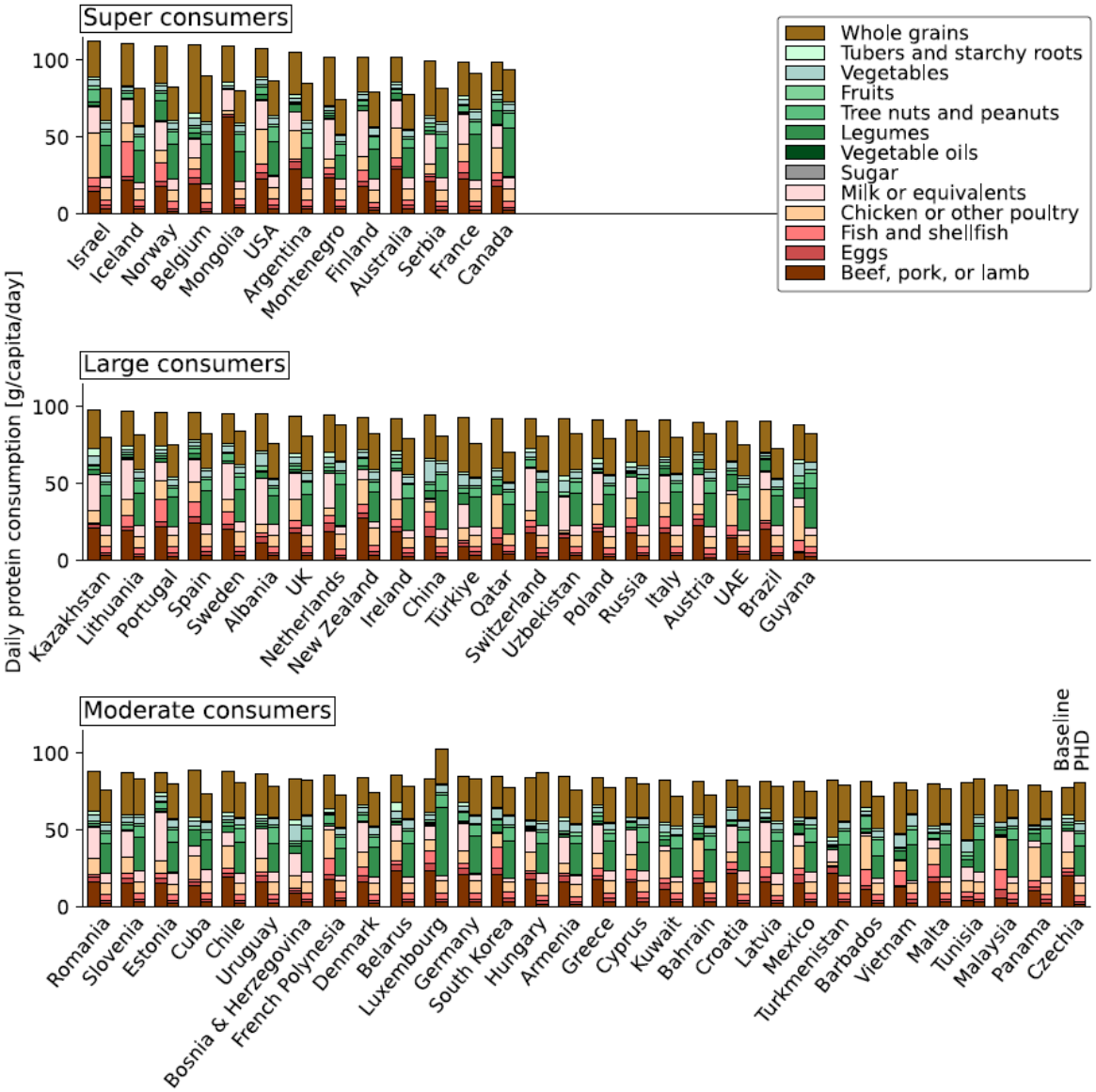
Planetary health protein targets for national and retailer food strategies



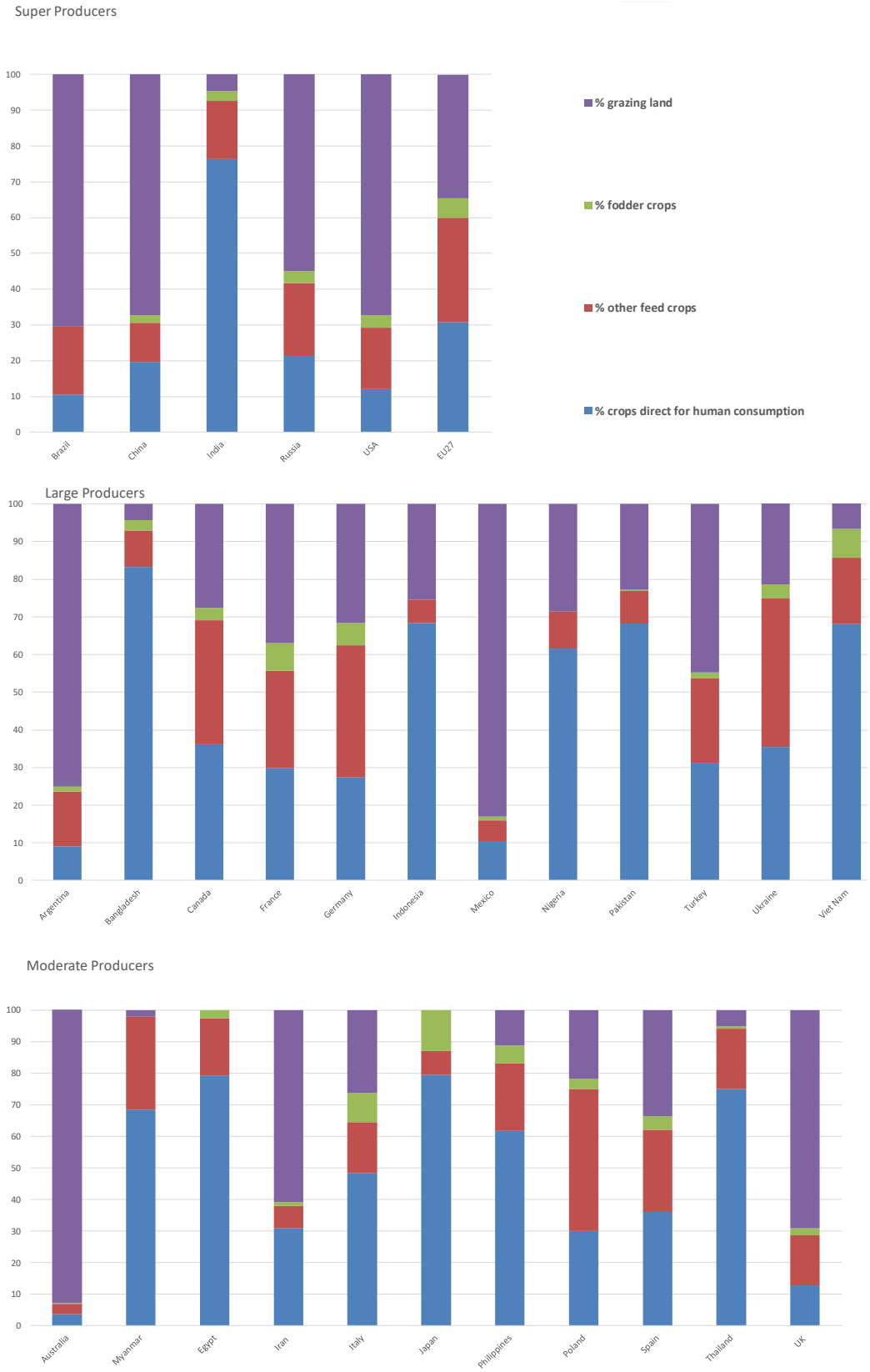
SI Figure 1. Daily protein intake (g/capita; excluding food waste) by food group in high-, upper-middle-, and lower-middle-income countries under baseline (left) and PHD (right) food consumption, limited to countries with populations over 10 million. Variation in PHD composition reflects global differences in energy and protein content across foods.



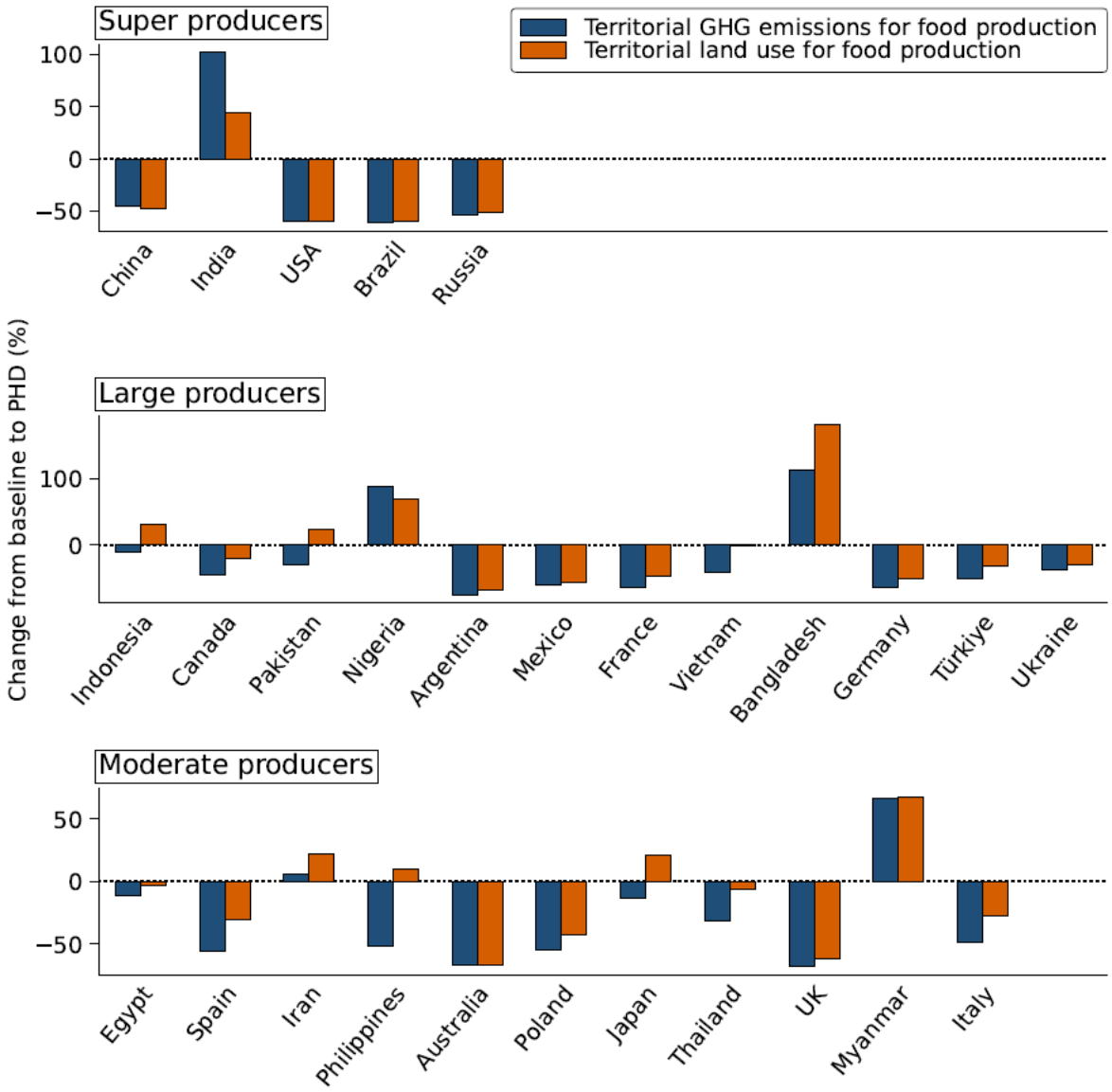
SI Figure 2. Daily protein supply of animal vs plant proteins



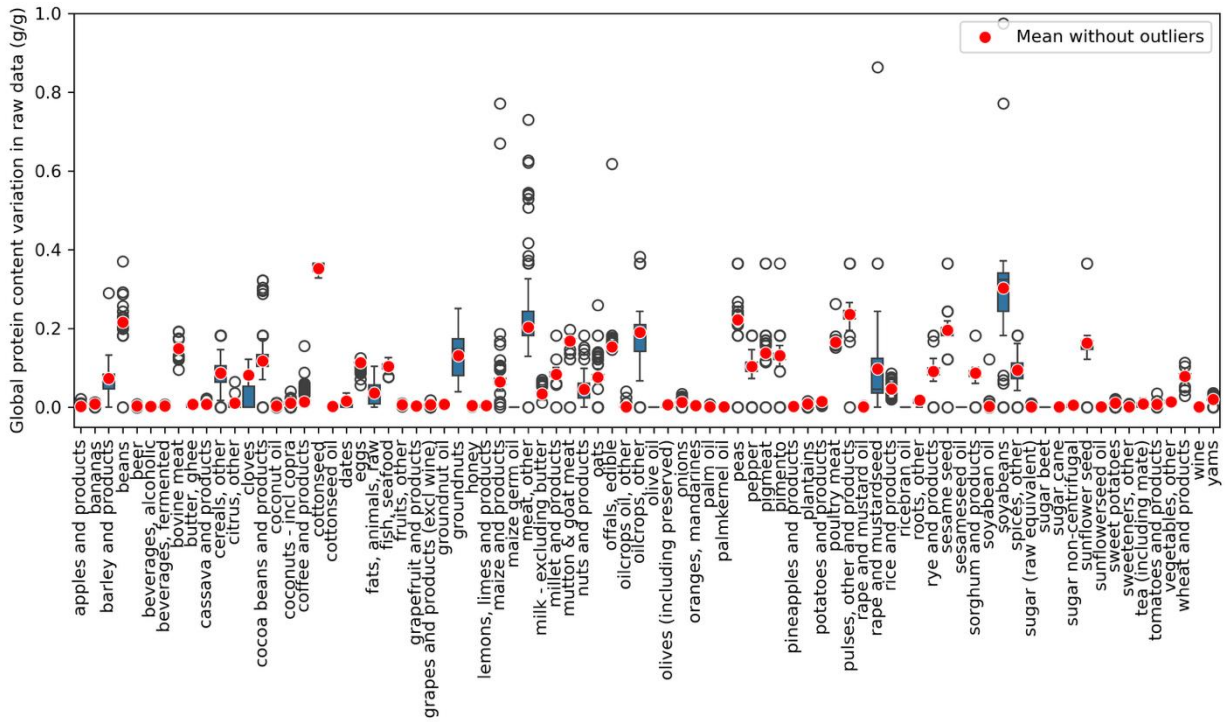
SI Figure 3. Protein consumption (excluding food waste and exports) by food group for Super, Large, and Moderate consumers under baseline (left) and PHD (right) food consumption. Under baseline consumption in 2020 and in comparison to a global average consumption of 78g protein per capita per day, Super Consumers comprise 13 countries where average protein consumption currently exceeds 100 g per capita per day - accounting for 11% of total global consumption; Large Consumers comprise 22 countries where average protein consumption exceeds 90 g per capita per day; and Moderate Consumers comprise 30 countries where average protein consumption exceeds 80 g per capita per day. For all 65 countries, animal proteins dominate current consumption. The remaining 94 countries evaluated consumed 80 g or less per capita per day. Plant proteins dominate current consumption in 76 countries. Values represent consumption of human-edible foods only (feed excluded). Variation in total protein consumption in the PHD reflects country-specific differences in the protein density (grams of protein per kcal) of foods used to meet the PHD's calorie-based targets.



SI Figure 4: Territorial land distribution for food production in the baseline year (2020) among Super, Large and Moderate protein producers.



SI Figure 5. Net change from current to the Planetary Health Diet in territorial land use and greenhouse gas emissions related to food production among super, large and moderate protein producers.



SI Figure 6. Boxplots of global protein content variation in raw FAO data and global protein content mean without outliers by food group (n = 82).