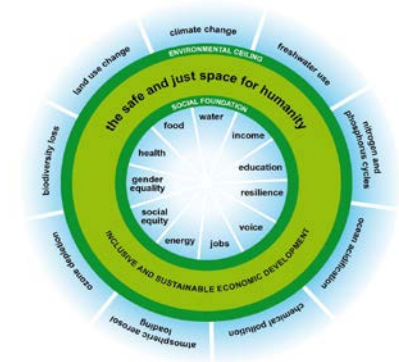


Working Group IX: Food Systems




Research Idea:

Create a model for the visual representation and exploration of possible trajectories for “living inside a safe and just space for humanity.”

Concept:

A safe and just space for humanity is bounded on the one hand by a set of environmental constraints (the “ceiling” of a safe space) and on the other hand by a set of social constraints (the “social foundation” of a just space). The “doughnut” provides a conceptual model for inclusive and sustainable development within these boundaries. It is a static model, potentially representing the state of humanity at a given instant; it does not allow for the exploration of possible trajectories from one state to another and thus find pathways to the safe and just operating space. The goal of the proposed project is to extend the concept of the doughnut model to enable the study of the dynamics of the state under various scenarios and explore pathways to and within the safe and just operating space for city region food-energy-water systems across the globe.

The Statistical and Applied Mathematical Sciences Institute  NSF•Duke•NCSSU•UNC