Our main achievement is to establish the FSMM to monitor the changes in various indicators of the society after the re-optimization of the food system, and then to provide suggestions for future development.

We firstly build the different score rank model which uses use entropy weight and subjective weight to evaluate the food system before and after the reoptimization. Then we use the Gray Forecast Model to calculate the time for re-optimization in all countries. Besides, we build the FSMM which uses worldwide data and monitor the food system of more than 170 countries to figure out the change of the importance rate of different indicators during the re-optimization, considering the aspects of environment ,social-economic elements and food production. Thus, we can quantify the benefits and costs of developed and developing countries during re-optimization.

We extend FSMM by using linear regression and add new indicators and combine the result and reality to provide suggestions for the health development of the food system. Finally we do sensitivity analysis, discuss the scalability and adaptability of FSMM.