The estimated number of undernourished people around the world has increased to nearly 923 million and is projected to rise with increasing food prices. A large majority of those affected live in India. This chapter examines one of the key efforts to address undernutrition in a targeted and rational manner in India. The resulting project, the Tamil Nadu Integrated Nutrition Project (TINP) was rational in that it was based on a combination of two Western-based scientific and modern disciplines, namely biomedical and health economic models. TINP was funded by the World Bank and has often been referred to as one of the most ‘successful’ nutrition projects in the general nutrition literature, so the way it was designed and implemented is of particular interest. It is argued that there is a mismatch between how malnutrition is defined, measured, and evaluated by the World Bank, and how it is lived and experienced in affected communities. While the biomedical approach to undernutrition might be suitable in the setting of a clinic, it is problematic when exported to stand-alone community nutrition projects such as TINP.