***Costing analysis of salt iodine fortification in Ethiopia: preliminary results***

**MINIMOD & EPHI Economics Team:**

*Elias Asfaw, Justin Kagin, Stephen A. Vosti, Muluken Moges, Zekariyas Getu*

**Background**: Starting in the 1980s, different political, economic, and social factors have contributed to the current state of the salt market in Ethiopia as well the current consumption of iodized salt within households.

**Rationale for the Study:** To understand the structure of the salt industry in Ethiopia and the costs of fortifying salt with Iodine; including studying salt prices, the quota system, market share of salt manufacturers, as well as the costs of fortification programs. It is also useful in assessing the extent to which salt may be a cost effective delivery mechanism in the future for other micronutrients besides Iodine.

**Methodology:** Micro-costing expenditures and a top-down costing method were employed at the different levels in the salt market as well as analyzing the salt iodization program activities and different contributions by the various stakeholders. The costing model was developed depending on the salt market structure and a series of activities such as: a baseline survey, revision of salt standards, human resources, equipment and machinery, monitoring and evaluation by different partners at different levels along the implementation of the salt iodine fortification program.

**Results:** The salt industry is in great flux and subject to tensions and government interventions (fixed prices). The fixed price ranges from Ethiopian birr/ETB 7.32 (United States Dollar/USD 0.44) to ETB 8.71 (USD 0.52) depending on the sources of raw salt and transportation. The quota system was established by the Afar Salt Producers Mutual Support Association (ASPMSA) to better coordinate salt production and supply. The Afar Salt Manufacturing SC continues to lead the salt production and distribution (almost 65% of the total cost) followed by the SVS salt manufacturer. The ten years total, 2011 to 2020, inflation deflated cost of salt iodine fortification is ETB 81,302,875 (USD 4,858,920). Of these, the cost incurred at the salt factory (33%) and monitoring and evaluation (32%) accounted for the largest share (> 60%) of the total cost.

**Conclusions and policy implications:** Iodine premix/potassium iodate and monitoring and evaluation are the major cost drivers in the salt iodine fortification. Efficiency could be improved through changing the M&E practices as well as possible change in the salt market structure and policy instruments. Multiple-fortified salt could also be cost-effective for conveying other micronutrients such as zinc, iron, folic acid and vitamin B12.