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**Estimating water losses as a result of food waste in South Africa**

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Globally there are sufficient land and water resources to produce food over the next 50 years, but only if water for agriculture is better managed (Molden, 2007). Water is a critical and strategic natural resource in South Africa. It is essential for growth and development, for food production, as well as for the health and wellbeing of people and the environment. Low levels of variable rainfall associated with high evaporation rates, due to the hot climate, results in South Africa being the 30th driest country in the world (DWA, 2012). Irrigated agriculture is the largest single use of water in South Africa (60%) while livestock watering and nature conservation combined use about 2.5% water. Water has been identified as the major limiting factor to the growth of this sector (DWA, 2012).

Agricultural production in South Africa has intensified over the past 20 years (WWF, 2010). Farms have increased irrigation, fuel, mechanization and genetically modified seed inputs (WWF, 2010) in order to keep up with the demand for food supply. In addition, intensive farming practices also increase environmental risks due to dependence on synthetic fertilizers, pesticide and herbicides which reduces the long-term soil fertility (WWF, 2010) and increase water pollution from agricultural run-off. Growth in household incomes, particularly in BRIC countries, is associated with a decline in consumption of starchy food staples and diversification of diet into fresh fruit and vegetables, dairy, meat and fish (Parfitt et al, 2010). These products typically require more water than traditional staple foods such as grains and tuber crops (Molden, 2007). A similar change in dietary requirements is already visible in South Africa.

Development objectives such as food security, improvement of livelihoods of farmers, meeting the growing demand on non-food agricultural products and safeguarding environmental resilience can be facilitated by strategies that focus on reducing food losses between production and consumption (Lundqvist et al, 2008). It is therefore imperative that we increase our knowledge and understanding of food waste in order to support economic development in developing countries. Food waste in South Africa is estimated at about 30% of the local, annual agricultural production (Oelofse and Nahman, 2013). By reducing food losses and wastages, water demand for agriculture could be reduced (Lundqvist et al., 2008). This paper reports on research towards estimating the volumes of water lost as a result of food waste in South Africa

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