

## 2021 KT Walsh Scholarship (MAIS) Project Summary

### 1. Project Title and Associated Programme

<b>KT Programme</b>	Teagasc-led Dairy Kenya Project Ireland (40% of time) and Kenya (60% of time)
<b>Project title</b>	Assessment of a sustainable innovation support model for smallholder dairy farmers in Kenya

### 2. Project background

Agriculture plays a central role in economic development in Kenya and increases in farm productivity will provide food security, income, and employment for farm households, as well as marketable surplus for urban dwellers, and export/cash crop production for industry and external trade. While there is a Government push in Kenya to move away from subsistence agriculture there is still an estimated 70-80% of the rural population in Kenya dependent on subsistence agriculture.

One of the cornerstones of economic development in Kenya is the improvement in farm productivity and income through diversification to high value commodities (e.g., Milk) and improved technologies. Productivity at farm level has historically been low because of the predominance of subsistence farming, unpredictable rainfall and drought, lack of modern technologies and inputs and lack of knowledge. Food production has not kept pace with the needs of the country. Strategies to increase milk output by the importation of exotic breeds (e.g., Holstein Friesian) has given disappointing results. Climate change is now presenting new challenges for the sector.

Little information exists on how effective current knowledge dissemination systems are in terms of the adoption (in a sustainable way) of improved forage based dairy systems on farms. Extension services in Kenya tend to be top down (linear model of imparting knowledge) rather than working with farmers, particularly through peer-to-peer learning.

This project is directly linked to the Teagasc-led Dairy Kenya Project (2019-2022) and aims to contribute knowledge to this. Information on the overall Dairy Kenya Project can be found at <https://www.teagasc.ie/about/international-food-security/current-projects/kenya/>

### 3. Project aims and objectives

The overall objective of the research is to contribute to the knowledge in the development of a more sustainable innovation support model for small holder dairy farmers in Kenya.

The specific objectives are:

- to identify the present state of entrepreneurial orientation of small holder farmers
- to assess effectiveness of farmer trainers (F2FE model) supported by local extension agents in disseminating agricultural technologies.

- to assess the effectiveness of using Farmer Field School (FFS) methodology or Discussion Group methodology in conjunction with F2FE model in the dissemination and adoption of agricultural technologies in sustainable systems of production.
- to assess the impact of Demo-Farms in relation to the adoption of improved farm practices (with a focus on forage-based dairying).
- to assess what local outside the farm gate issues might support/hinder the application of improved farm practices.

The knowledge gained from this research will guide the development of a more sustainable innovation support model for small holder dairy farmers.