Healthier milk in sight for Ethiopian people

Reducing the risk to livestock and people. For more about ZELS: bbsrc.ukri.org/zels
Safer, disease-free milk for local consumption and international export is now in sight for Ethiopians thanks in part to assistance from the ZELS-funded project Ethiopia control of bovine tuberculosis strategies (ETHICOBOTS).

ETHICOBOTS took a multi-disciplinary approach to understanding bovine tuberculosis (bTB). Its research findings are now feeding into a new national pathway to reduce the burden of bTB in the country.

The result will be strategies designed to keep people and cattle disease-free, improving health, nutrition and livelihoods for poor people in Ethiopia, as well as the potential for development benefits through new export income.

Ethiopia has over 50 million cattle, the largest national cattle herd in Africa. These are mostly of the local zebu breeds which are low-milk-yield producers and managed by smallholders.

However, Ethiopia’s rapidly growing urban populations demand large volumes of milk and milk products. To support this, the Ethiopian Government is encouraging expansion of its dairy sector through investment in high-milk-yielding exotic or cross-bred cattle, mostly reared intensively. However, such systems are associated with an increased risk for transmission of infectious diseases, including bTB.

“High bTB prevalence can impact negatively on animal health and dairy productivity, and lead to import restrictions from other countries for dairy and meat products. It is a real threat to further expansion of the sector.

In addition to the economic impact from bTB, there is a significant potential human health impact as the disease can transmit from cattle to people (zoonotic transmission). In people, bTB primarily affects the lungs but scrofula (TB in neck lymph nodes) is also common.

ETHICOBOTS’ research has made it possible to estimate transmission rates in Ethiopian dairy herds for the first time – which is helping build scenarios for disease control in different control strategies.

Ethiopia’s Ministry of Agriculture (MoA) showed growing interest in ETHICOBOTS over the project’s five-year term, with increased engagement in multiple stakeholder meetings and workshops on animal health and disease control from the Ministry and its State Minister for livestock.

ETHICOBOTS research built strong capacity in the MoA and its executing body in the field of bTB, the National Animal Health Diagnostic Investigation Center (NAHDIC). It helped to establish a research team skilled in diagnostic testing, disease transmission modelling, mycobacterial culturing, and molecular identification of the bTB disease agent, Mycobacterium bovis – all critical for the sustainability of future bTB work in Ethiopia.

A national bTB steering committee has been set up and a pathway to bTB control is now being drafted, with components aimed at strengthening infrastructure and further capacity building. Plans are underway to support control methods on government and other well-managed farms so these can become demonstration herds showing the way forward for effective bTB control.