

At the same time, land expansion has also contributed a large share of the total growth in agricultural output, particularly in the case of maize, Zambia's major cereal crop. From 2005/2006 to 2009/2010, maize production doubled from 1.4 million to 2.8 million metric tons.<sup>11</sup>

**Efficiency of production contributed approximately 40 percent of the production increase – a success story**, given that almost all of the increase can be attributed to small and medium-scale producers who have less access to capital and inputs. At the same time, the land area cultivated for maize increased by 60 percent from 733,000 to 1.2 million hectares, making land expansion the primary driver of the increase in maize production.<sup>12</sup>

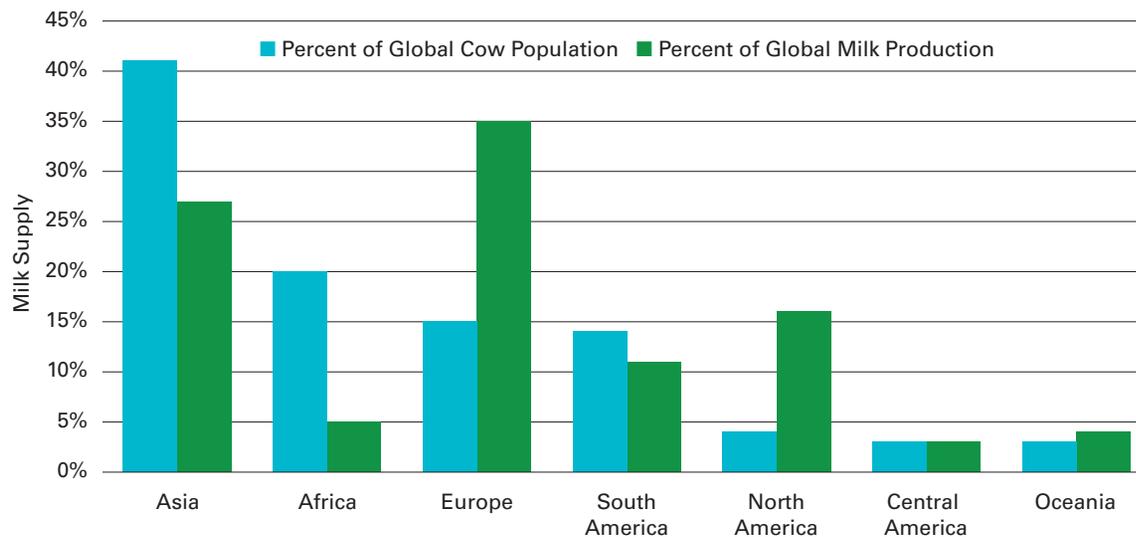
## LIVESTOCK PRODUCTIVITY<sup>13</sup>

While maize calories make up more than 60 percent of the diet in Zambia, domestic demand for animal products is expected to grow. In 2013, Zambian farmers raised 38 million chickens, 4 million head of cattle, 2.74 million sheep and goats and 1 million pigs. Zambia is a net

exporter of some animal products, such as raw hides and leather, but almost all animal protein products are consumed domestically, supplemented by imports to help meet demand. In 2012, Zambia imported 1,600 tons of chicken meat (value \$1.7 million) while exporting only 33 tons (value \$121,000). Zambia also imported 838 tons of cattle, boneless beef and veal and beef preparations (value \$3 million), while exporting only 96 tons (value \$327,000).

**Low milk productivity is a challenge in Zambia, and throughout Africa which has 20 percent of the dairy cattle in the world, but produces only 5 percent of the global milk supply.** (Figure 27) North America and Europe, on the other hand have only 19 percent of the dairy cattle and produce more than 50 percent of the milk supply. Improving the milk productivity per cow in Zambia will reduce greenhouse gas emissions and increase the availability of an important source of animal protein in a country where 45 percent of the population is malnourished.

**Figure 27: Global Milk Supply and Cow Population**



Source: FAOSTAT (2014)



## VACCINATION PROGRAM INCREASES LIVESTOCK PRODUCTIVITY



Disease is the greatest threat to the Zambian livestock industry and can be particularly devastating to small and medium-scale producers, for whom livestock can account for up to 50 percent of their income. In 2005, the **International Fund for Agricultural Development (IFAD)**, the **UN Office for Project Services**, and the **Zambian Ministry of Agriculture and Livestock** launched the **Smallholder Livestock Investment Project (SLIP)** which provides vaccinations free-of-charge and raises awareness of the effectiveness of livestock vaccinations. For the program participants, vaccinations lowered the mortality rates of cattle from East Coast Fever (Bovine theileriosis) from 90 percent to less than 10 percent.

Vaccination education proved to be the most difficult, and yet the most important part of the project. Brendan Choobe, a community livestock worker, was successful in convincing his neighbors to vaccinate their herds, increasing the number of vaccinated cattle by more than 200 percent. Brendan's own herd has more than tripled in size to 75 head, thanks to vaccinations. In 2015 SLIP was expanded to include an additional 900,000 households.

*Pictured above: A calf is tagged after having been vaccinated as part of the Smallholder Livestock Investment Project (SLIP), an IFAD-funded initiative in Zambia. The project is revitalizing the smallholder mixed-farming system that was devastated by cattle diseases in the 1990s. Photo source: @IFAD/Siegfried Modola*