Livestock Geo-Wiki: Maps for a safer and more equitable livestock sector


Introduction

Global demand for meat, milk and eggs is driving livestock sector growth and transformation. Whilst this provides many economic opportunities, and promises to provide affordable animal source foods to many of the world’s undernourished poor, it comes with environmental, social and public health risks if not managed carefully. If policymakers are to guide sector growth along sustainable routes, particularly in the developing world, they will require sound analyses, based on reliable data.

Materials and methods

In a recent effort to bring together and disseminate spatial data relating to the global livestock sector the Livestock Geo-Wiki (http://www.livestock.geo-wiki.org) is being developed by a group of international organizations and universities. The mainstay of the wiki is a set of recently produced global livestock maps (Robinson et al. 2014). With livestock production at the centre, other modules under development relate to global public goods: welfare, environment and public health.


Results

Global, 1 km resolution maps of livestock densities are available for all of the major livestock species, and are already being downloaded and used. The global pig map, shown to the left, was recently reported by Vox to be among the 38 maps that explain the world economy.


Research into use

The livestock distribution maps made available through the Livestock Geo-Wiki are an essential foundation for much important environmental, epidemiological and other work today. These maps have already been central to estimating greenhouse gas emissions from the livestock sector, for example, and have been used to assess the risk of H7N9 (a new bird flu strain) spreading in East Asia (based on a boosted regression tree model that includes chicken and duck densities [Gilbert et al. 2014]).


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