INVESTING IN INFRASTRUCTURE - IMPLOSION OF SAFETY NETS

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"Every step by which an individual substitutes concerted action for isolated action results in an immediate and recognizable improvement in his conditions."

- Ludwig von Mises, economist and social philosopher

GROWING CHALLENGES

In 2001, an outbreak of foot-and-mouth disease (FMD) in the United Kingdom spread quickly between farms before animal movement restrictions could be enforced. Immediate actions included the closure of meat and animal export markets and the eventual sacrifice of more than 6.5 million animals.

Longer-term effects included countless farming operation closures despite more than $2 billion (USD) in government compensation to more than 9,000 farms, and losses estimated to be as much as $12 billion (USD) in the tourism sector. In rural areas, the suicide rate rose markedly, directly attributable to the event.

Before the outbreak, the U.K.'s chief veterinary officer warned of the potential for a disease incursion, highlighting shortcomings in the infrastructure needed to combat disease. Between 1991 and 2001, one-half of the regional animal health offices and 20 percent of the veterinarian positions assigned to those offices were eliminated, along with a decrease in the number of laboratories available for disease testing.

These reductions, on the heels of the U.K.'s experience with bovine spongiform encephalopathy or "mad cow disease," limited the ability to detect the emergence of diseases such as FMD. The 2001 outbreak illustrates the growing challenges and vital need to maintain an adequate animal health infrastructure in order to operate in a global environment.

RECOGNIZING THE IMPORTANCE OF ANIMAL HEALTH INFRASTRUCTURE

Global trade, stimulated by economic and population growth, is growing. Agricultural production to serve consumers is also expanding to meet increasing demand. Meat and animal product consumption in developing countries alone is expected to increase by at least 50 percent by 2020. Intensive animal production in many developing countries has, in response, increased significantly to meet domestic needs and to realize comparative trade advantages in a global marketplace.

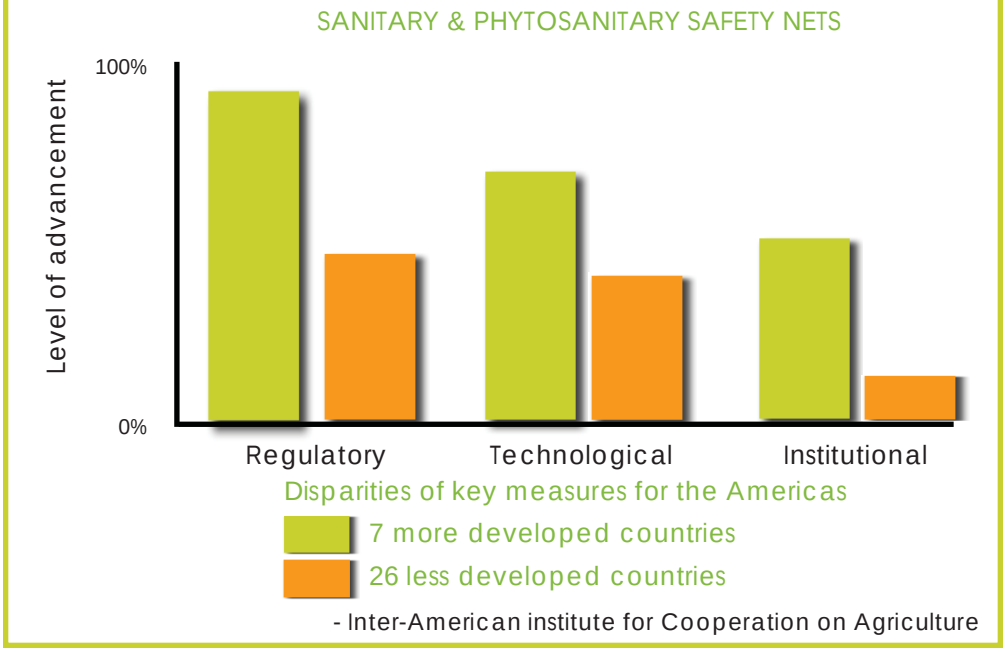
Beneficiaries of animal production technology, economies of scale and a relatively inexpensive labor force include Asian countries.

In the last 20 years, Asia has become the top poultry production region in the world. For many countries, the absence of disease, investments in animal health infrastructure often go unrewarded.

Competitiveness is the primary goal toward which the agricultural infrastructure of most countries is aimed. Yet, competitive market conditions such as live animal auctions are highly efficient means of dispersing pathogens. International trade can transcend geographical barriers that may have naturally slowed the spread of diseases in the past. The market economy does not necessarily reward additional resources to enhance animal health infrastructure or encourage surveillance to track changing risk factors that might signal the possibility of disease.

Maintaining adequate national animal health infrastructures to serve domestic and global demand is a constant challenge. Currently, the vulnerability of the sanitary conditions of countries exporting animal products and countries receiving those products may go unrecognized in the absence of a full-fledged disease outbreak or threat of a potential pandemic.

The adequacy of preventative measures is of concern to animal health and human health. By some estimates, more than 75 percent of the diseases that threaten human health originate in the animal population. While these diseases, termed zoonoses, have always threatened human health to some degree, it is believed that animal-borne diseases are responsible for 11 of the last 12 significant human health epidemics including the most recent Asian strain of highly pathogenic avian influenza H5N1.



Projected to become the world's most populated regions by 2050, Africa and Asia typify the growing intersection of animal agriculture and the human population. Domestic and global demand fueled by the simplicity and speed with which meat and animal products transcend seemingly "borderless" trade routes have all converged and animal health operations, both intensive and extensive, now reside in close proximity to human populations and compete for available natural resources.

LINKING ANIMAL AND PUBLIC HEALTH

The 2002 outbreak of severe acute respiratory syndrome (SARS) illustrates the precarious link between animal and human health. SARS first emerged in China, the likely result of overcrowding and species mixing in live animal markets. By 2003, it had spread to Hong Kong and Toronto, Ontario, and recurred in China in 2004. SARS has sickened more than 8,000 people and killed 10 percent of those infected. Infrastructural failures such as understanding the risks of disease between animal and public health, inadequate public health systems, a lack of clear and effective treatment, and inaccurate diagnoses contributed to this "super spread."

Bracing for the next SARS, whether it is a recognized or new emergent pathogen, requires the consideration of our global, interdependent health. Prioritization and investments in health infrastructures that recognize the importance of animal health on public health may pay dividends in improving global health and strengthening the global economy.

Rooted in this challenge is growing health infrastructures to adequately address disparities based on income, gender, race or social class. This applies to animal agriculture and public health.

Extensive animal agriculture remains an important source of food and income, especially in lesser developing countries. Animal disease occurrence can have a disproportionate affect on family income and other measures such as education and healthcare. In the face of already limited animal health infrastructure, the cost of disease in these areas receives little attention.

Simultaneously, public health infrastructures are at odds with growing regional human populations. One can derive that investments in public health can be overlooked in the face of an overabundant pool of labor wanting to work irregardless of risks and levels of health support.

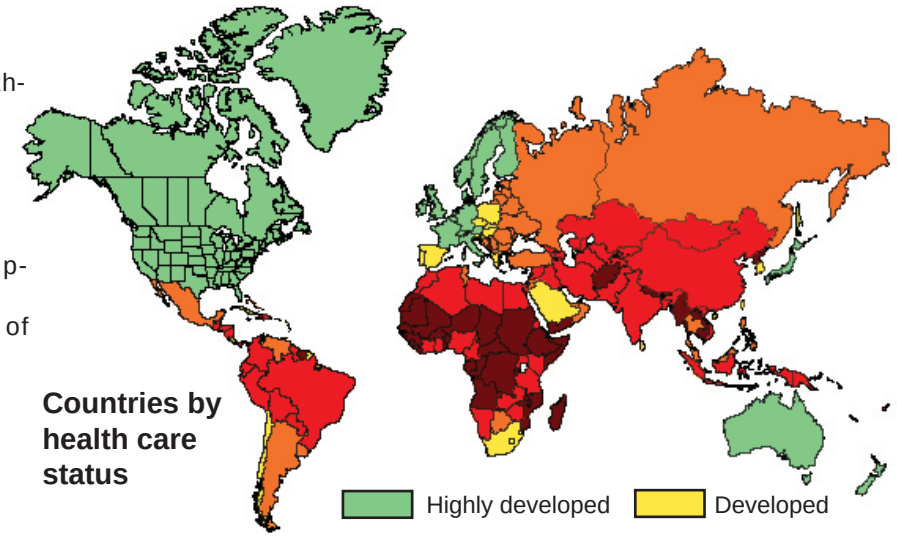
RESOURCES, PRIORITIES AND PARTNERSHIPS

Building the infrastructure that protects a growing human population and sustains agricultural growth at a domestic and global scale in light of limited resources and competing priorities is no small task. It requires investments of economic and social capital. Unfortunately, there is a growing gap between the expectations placed upon governments and their capabilities to deliver as evidenced by governments' inadequate response to outbreaks and failure to address more sustainable preventative strategies. In the Americas, for example, an estimated five percent of total government expenditures are in agriculture. Just five to 10 percent of this total goes to animal and plant health programs. The average term of office of a minister of agriculture is just 1.5 years.

Countries lacking the technical expertise, infrastructure or resources to prevent and respond to outbreaks may view Non-Governmental Organizations (NGOs) as a more viable or immediate funding source than their own treasuries, the private sector, or international banks and donors. NGOs, including international organizations, have limited resources and operate within the bounds prescribed by governments.

And while an outbreak can provide governments with a previously unavailable influx of external resources, a delicate problem is created. NGO support may contain conditions and limitations as NGOs can be fiercely competitive to ensure their own survival. In addition, external resources may reduce elected officials' need to re-prioritize domestic spending to improve the animal and public health infrastructure within a country's national agenda.

The relief of the immediate pressure to pursue longer-term national solutions fosters an oft-seen scenario whereby the eventual withdrawal of external resources results in a regression of the infrastructure. At risk is the perpetuity of a dangerous cycle of animal agriculture disease emergence that goes unnoticed until the next crisis and potential threat to human health on a national or international scale.



- Federation of American Scientists