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Disease-free Farm Production in ASEAN: Goal For 2018?

By Luis P. Montesclaros

Synopsis

Diseases from farm production have caused great damage to ASEAN and show signs of worsening in the future. To address this, can Singapore aspire to align farm production practices with established international standards when it serves as ASEAN chair in 2018?

Commentary

SINGAPORE WILL be chairing ASEAN in 2018. During the recent Commonwealth Agricultural Conference which Singapore hosted, Dr Paul Chiew, Programme Chief (Food Safety) of its Agri-Food & Veterinary Authority, was asked about the country's plans for its chairmanship, from a food safety perspective.

Dr Chiew responded briefly that harmonising standards could be among Singapore's priorities. This might be just what the region needs given the looming threat of diseases from substandard food production. In the long-run, if this gets worse, it can eventually affect food security for Singapore and for the larger Southeast Asian region.

Reducing Risks of Animal-borne Diseases

Over the past 15 years, ASEAN states have been struck by animal-borne diseases, which infect people through physical contact. The avian influenza affected farms in majority of ASEAN states. Indonesia has suffered the most deaths in the region, of 167 people out of 199 infected (a kill-rate of 84%). The swine flu is estimated to have killed a quarter of a million worldwide, more than half of which were from Asia and Africa.

The presence of these diseases is crucial not only for consumer health, but also for job creation and economic growth. A majority of ASEAN's rural populations depend on agriculture for their livelihood. When a farm is struck by a disease, it will need to cull its animals, and smallholder farmers may not be able to bear these financial losses. Countries affected by diseases lose their overseas buyers, leading to a drain in the country's exports, a reduction in GDP, and further job loss in the long-term.

For example, Thailand used to be the world's fifth largest poultry exporter, with US\$638 million worth of total exports in 2003, but exports plunged to just US\$47 million in the year following the avian influenza outbreak. This loss of US\$591 million is relevant, as it equates to wages of as many as 350,000 Thai workers, based on wages in this period. Yet by 2015, Thailand had still not recovered to 2003 levels.

Substandard rearing, feed, storage, and transport practices contribute to animal-borne diseases, according to the Centre for Disease Control and Prevention (CDC). Waterfowls originally carried their own viruses, but these were not lethal to people until they mutated. Contact between chickens and waterfowl birds (e.g. ducks) as well as rearing of chickens in close contact with one another, contributed to these mutations. The CDC also posits the swine flu virus likely originated from contact between North American and Eurasian pigs in the process of trade/transport, which caused similar mutations.

Risks of animal-borne diseases could have been mitigated if farms abided by international standards set by the UN Food and Agriculture Organisation, namely, the Codex Alimentarius, as well as guidelines by the World Organisation for Animal Health (OIE). Biosecurity measures include separating batches of growing animals (e.g. chicks/hens) in different growing areas/pens, limiting contact between animals of different types, and use of proper protective equipment to limit human-animal contact.

Looming Challenge of Antibiotic Resistance

Food-borne diseases, acquired through consumption, also present major challenges to the region. Singapore had 1,042 cases of Salmonella infections this year (as of June 2016) based on Ministry of Health Statistics. While not as lethal as swine or avian influenza, it still leads to vomiting, fever, diarrhoea and abdominal cramps. Other countries have also faced this problem, although Singapore is ahead in terms of reporting disease incidence.

While antibiotics have been developed to prevent food- and animal- borne diseases, farmers have a tendency to over-use them. Antibiotics have properties which allow for faster animal growth and increased protein content in meat. At a recent TED Talk, Professor Jorgen Schlundt, head of NTU's newly established Centre for Food Technology, emphasised that over-use of antibiotics can lead to antibiotic resistance, wherein diseases develop immunity to antibiotics. The WHO notes that today this is a challenge all countries face.

The WHO recommends increased vigilance 'from farm to the table', including the production phase. Denmark is a global exemplar for this, as it banned antibiotic

growth promoters (AGP), and advocated better management practices that allowed for comparable growth performance. However AGPs continue to be used in ASEAN, and their implications a looming future challenge.

Who Will Pay for Safer Food?

Whether it be segregation of livestock, reducing the use of antibiotics, or other practices, upgrading food production standards implies costs to businesses. Singapore can serve as an example for ASEAN in this regard, as it has supported the use of technologies towards safer food production practices.

Thanks partly to government's co-investment, and a sincere desire to protect consumers from harm on the firm's side, N&N Agriculture Pte Ltd is pasteurising its eggs to reduce the risk of Salmonella infections. During pasteurisation, eggs are put under extreme heat to kill bacteria, while preserving the eggs' freshness and preventing them from getting cooked.

However, states and farms are not sufficient to sustain production transformations. Mr. Ma Chin Chew, N&N's CEO, shared that locals do not necessarily prefer pasteurised eggs over non-pasteurised eggs, and may not be willing to pay a premium for them. In this regard, it is uncertain how the company will be able to finance costs for energy, water, and staffing for this process upgrade in the future.

As such, efforts by farms and the state will only lead to safer outcomes in the future if consumers play their role in supporting farms that produce safer food. This applies to any firm upgrading to provide safer products to consumers.

Singapore's hindsight and practical experience in upgrading food production standards makes it good reference for other ASEAN countries. This hindsight will give it credibility to generate cooperation as the region faces a new reality of increased risk from animal- and food-borne diseases.

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