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R.J. Butler, R.R. Biddle & J.G. Murray

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A Role for Australia: Contributions and Benefit

R.J. BUTLER, R.R. BIDDLE AND J.G. MURRAY³²

Abstract

This paper summarises Australia's contributions to the global animal disease control effort, from the perspective of the Department of Agriculture, Fisheries and Forestry – Australia (AFFA). AFFA's objectives in the context of animal health and welfare, and veterinary public health, include minimising the impact of pests, diseases and contaminants, managing emergencies, facilitating the development of national policies and strategies, and advancing Australia's trade interests. A result of such objectives has been the establishment of a

strong international program within AFFA. The program has the advantages of collaboration with other countries on animal health matters, including that of aquatic animals, as well as progressing Australia's trading interests.

At a 'global level' Australia is active in multi-lateral standards and policy-setting organisations such as the Food and Agriculture Organisation (FAO) and the World Organisation for Animal Health (OIE). These activities indirectly assist developing countries in numerous ways, including by promulgating standards that provide guidance in designing and implementing domestic animal health standards.

DR JAMES GARDNER MURRAY is the Australian Chief Veterinary Officer and manages the Product Integrity, Animal and Plant Health group within the Department of Agriculture, Fisheries and Forestry — Australia. This group deals with issues of animal health, plant health and plant protection, residues and food safety, and handles emergency management and preparedness and issues associated with bioterrorism. He has held positions as Executive Director, Australian Quarantine and Inspection Service; Executive Director, Bureau of Resource Sciences; and Counsellor Veterinary Services in the United States. He is President of the OIE Regional Commission for Asia, the Far East and Oceania; Chair of the South East Asia Foot and Mouth Disease Campaign; and Chair of the International Committee of Experts reviewing the Agri-food and Veterinary Authority of Singapore food safety and biosecurity

Australia's contributions are also made at a regional level, with direct and obvious benefits for developing countries such as information exchange, technology transfer, training and support. Examples include Australia's leadership in initiatives such as the OIE Regional Commission for Asia, the Far East and Oceania, the South East Asia foot-and-mouth disease (SEAFMD) campaign, and the Network of Aquaculture Centres in Asia-Pacific (NACA). Involvement in the Asia-Pacific Economic Cooperation (APEC) forum technical working groups relating to animal and plant health has also had benefits through APEC harmonisation initiatives.

Contributions may also be through direct, bilateral assistance and collaboration, with similar benefits. There are many examples of such

³² Product Integrity, Animal and Plant Health; Agriculture, Fisheries and Forestry – Australia
GPO Box 858, Canberra, ACT 2600, Australia

bilateral activities, such as emergency management training in Indonesia and foot-and-mouth disease projects with China, Thailand and Indonesia. Examples and case studies are provided in the paper to illustrate these direct and indirect contributions and benefits.

Introduction

There are a number of direct and indirect ways through which Australia contributes to improving the health and welfare of livestock and aquatic animals in developing countries around the world. The scope of this paper is limited to summarising those contributions that involve the Department of Agriculture, Fisheries and Forestry — Australia (AFFA).

AFFA is an Australian Commonwealth Government Department. AFFA's mission is to 'increase the profitability, competitiveness and sustainability of Australian agriculture, fisheries, forestry and food industries and enhance the natural resource base to achieve greater national wealth and stronger rural and regional communities'. In pursuing this mission, AFFA is responsible for various activities including:

- maintaining and improving markets for Australian animals and animal products
- minimising the impacts of pests, diseases and contaminants on Australia's animal industries
- contributing to the health and welfare of Australian farmed animals
- keeping Australia free of exotic animal pests and diseases
- providing scientific input to the risk analysis process.

Clearly most of AFFA's animal health and veterinary public health responsibilities cannot be effectively met without bilateral, regional and multilateral collaboration on these matters. Additionally, the Australian Chief Veterinary Officer (CVO), Australia's representative on international animal health matters, is located within AFFA. AFFA also provides funding for the Australian Animal Health Laboratory (AAHL), and works closely with AAHL's animal health experts on domestic and international activities.

Context

A key focus of AFFA's mission and activities detailed above is international trade. This is understandable considering that the value of exports of Australian animals and animal products exceeded A\$15 billion in 2001/02 (Australian Bureau of Agricultural and Resource Economics 2002), and that the value of food exports is about five times the value of food imports (Agriculture, Fisheries and Forestry – Australia 2002).

In recent times, international trade in animals and animal products has been greatly influenced by changing risks, both real and perceived. In general, farmers and consumers are demanding that their national governments deliver better animal health and veterinary public health controls, for both endemic and exotic pathogens. High profile failures in these controls, such as bovine spongiform encephalopathy (BSE) and foot-and-mouth disease (FMD) outbreaks in Europe, have driven the continuing evolution of relevant national and international standards. Clearly the trend will continue for international trade in animals and animal products to be increasingly regulated by sanitary requirements related to animal health and veterinary public health, rather than by tariffs and quotas.

Australia has an important self-interest in collaborating with regional countries on animal health matters. To a large degree, this collaboration is driven by the desire to facilitate trade, as evidenced by the Declaration on the Closer Economic Partnership (CEP) between the ASEAN Free Trade Area (AFTA) and the Australia — New Zealand Closer Economic Relations Trade Agreement (CER) that was signed in 2002 (Department of Foreign Affairs and Trade 2003). Collaboration on animal health science also serves to defuse regional market access disputes, strengthen pre-border control programs against animal disease and pest incursions, and encourage exchange of information and knowledge. This may sometimes be true 'technology transfer', but often it is more general information-sharing activity to compare and contrast the merits of animal disease and pest control strategies, and veterinary public health strategies.

AFFA has been a key player in the establishment of international and regional trading agreements, and in the development of the international veterinary standards and public health standards that underpin those agreements. Animal health and veterinary public health authorities in developing countries have been indirect beneficiaries of these

activities. In some cases these international agreements and standards have provided a framework and knowledge base for the development of national standards in countries where constraints on resources and technical expertise may have hampered their development. National standards have been able to draw on international standards for conducting import risk assessments, implementing import policies and procedures, and for developing strategies for preparedness, prevention and response to endemic and exotic animal diseases.

AFFA also liaises closely with agencies involved with the broader Australian aid effort. Financial assistance is provided through AusAID for projects that are part of the Australian Government's overseas aid program, such as the APEC Support Program and the Government Sector Linkages programs with Indonesia and Thailand (AusAID 2003). Additionally, the Australian Centre for International Agricultural Research (ACIAR) contributes to animal disease control assistance through research projects. Of course, the avenues for collaboration described above are not mutually exclusive; for example the SEAFMD campaign, sponsored by OIE, receives AusAID support.

Nature of activities

Multilateral ('global')

Australia is active in a number of global multilateral organisations, whose activities may provide benefits to developing countries.

The OIE is an intergovernmental organisation created in 1924 by international agreement. In May 2002 the OIE had 164 member countries. The OIE is recognised by the WTO's Sanitary/Phytosanitary (SPS) Agreement as the international organisation responsible for establishing and maintaining animal health standards and guidelines for international trade in animals and animal products. The objectives of the OIE (Office International des Epizooties 2003a) are to:

- guarantee the transparency of animal disease status world-wide
- collect, analyse and disseminate veterinary scientific information
- provide expertise and promote international solidarity for the control of animal diseases
- guarantee the sanitary safety of world trade by developing sanitary rules for international trade in animals and animal products.

Through the CVO, and other Commonwealth and State Government officers, Australia is a very active participant in the OIE. This includes providing expert scientific input into specialist commissions and working groups preparing standards such as the *International Animal Health Code* and the *Manual of Standards for Diagnostic Test and Vaccines*. For aquatic animals, Australia's representation on the Aquatic Animal Health Standards Commission ensures input into the *Aquatic Animal Health Code* and the *Diagnostic Manual for Aquatic Animal Diseases*. Additionally, AAHL is an OIE reference laboratory where animal health experts also contribute to the OIE, as well as conducting research, training in diagnostic techniques, and technology transfer. For example, AAHL is working with counterparts in Canada, the United States and United Kingdom on a proposal to develop the next generation of FMD vaccines and diagnostic assays.

From time to time, Australian experts are called upon to provide specialist consultancy-type advice for animal health projects coordinated by the OIE or the Food and Agriculture Organisation (FAO), such as the Global Rinderpest Eradication Program.

Australia is also an active participant in other multilateral organisations whose activities and/or standards may directly or indirectly influence domestic animal health policies. Such organisations include the Codex Alimentarius Commission, which was created in 1963 and, under the Joint FAO/WHO Food Standards Program, promulgates food standards, guidelines and codes of practice (Codex Alimentarius Commission 2003). As with international animal health standards, Codex standards and norms provide a valuable resource for developing countries.

Regional alliances

AFFA continues to build a collaborative animal health program with other countries. Australia places a particular emphasis on neighbouring countries and other ASEAN members, where their proximity means that an outbreak of serious animal disease may pose a threat to Australian animals. This program seeks to expand the network of collaborating agencies in the region and to assist regional countries to build their capacity to manage animal health, accurately and transparently report their animal health status, and perform risk analysis on animal diseases and pests.

As an example, the Australian CVO is President of the OIE Regional Commission for Asia, the Far East and Oceania. His roles include overseeing OIE-related activities in the region, representing the region on issues within the OIE Central Bureau, and overseeing regional epidemiological and surveillance reporting systems. He is also President of the OIE Sub-Commission for the control of FMD in South East Asia, and chairs SEAFMD campaign meetings (see case study, below).

The FAO and International Atomic Energy Agency are funding a project that aims to control and ultimately eradicate FMD from South and South East Asia, using more affordable diagnostic reagents. AAHL will coordinate the project, assist with laboratory quality assurance programs and supply diagnostic reagents. Fifteen countries are involved in the project, ranging from Pakistan in the west through to Japan in the northeast (Australian Animal Health Laboratory 2003).

Examples of other regional activities of relevance include APEC harmonisation initiatives where Australia is involved in technical working groups on animal and plant health, NACA (see case study), and assistance to ASEAN countries with regional training workshops on import risk assessment and quality assurance for veterinary laboratories. In a broader sense, dedicated funding has also been provided for animal health initiatives under the ASEAN Australia Cooperation Development Program, in addition to Australia's involvement with SPS Capacity Building in ASEAN countries (AusAID 2003; Department of Foreign Affairs and Trade 2003).

Bilateral partnerships

AFFA, often in concert with AAHL and supported by AusAID funding, is involved in many bilateral animal health activities. Bilateral collaboration occurs formally, and on an ad hoc basis, at government, institutional and industry levels. Most of these activities have a focus on regional countries. As an example, the Northern Australia Quarantine Strategy (NAQS) identifies quarantine risks from countries to the north, conducts surveillance for pests and disease in northern Australia, Papua New Guinea and Indonesia through cooperative programs, and raises quarantine awareness in northern Australia and in the other countries involved (Australian Quarantine and Inspection Service 2003).

There are too many other projects to mention in detail, but some current or recent projects in a range of regional countries are listed below:

- Malaysia — screw worm fly facility and associated activities
- Indonesia — Flores rabies diagnostic project
- Indonesia — FMD disease surveillance project
- Papua New Guinea/Irian Jaya — AusAID project-capacity building in animal and plant quarantine
- East Timor — Quarantine building project
- Indonesia — Sponsor of training of Indonesian personnel in diagnostic capabilities at AAHL
- development of diagnostic and control methodologies for animal trypanosomiasis (surra) in Papua New Guinea, Indonesia, the Philippines and Australia
- Indonesia (Bali) — Japanese encephalitis project
- China — national workshop on quarantine and health certification
- Lao PDR — aquatic animal health assessment in southern Lao PDR
- China and Thailand — AAHL FMD projects
- Regional countries — nipah virus training of representatives from regional countries at AAHL and offshore work in Malaysia
- Republic of Korea — technical assistance with FMD epidemiology and control.

Case studies

South East Asia foot-and-mouth disease campaign

The SEAFMD campaign was established in 1997 to provide assistance to governments in South East Asia to help establish FMD-free zones within the region. The countries involved are Cambodia, Lao PDR, Malaysia, Myanmar, the Philippines, Thailand and Vietnam; Indonesia is also a member. Australia provides assistance to this project through funding by AusAID, liaison, facilitation and technical assistance. The Regional Coordinator, based in Bangkok, is an Australian scientist.

The campaign has required a long-term commitment from participants. The benefits that will flow from eradication of FMD are perhaps obvious. Less obvious are the general benefits to animal

health in the region that will flow from general improvements in veterinary services and information systems to support trade. A mid-term review of the project will be undertaken this year to examine priorities and strategies of the project. The review will focus on progress with establishing the Malaysia-Thailand-Myanmar Peninsular FMD-free zone, and the long-term transfer of the project to control by ASEAN countries (Office International des Epizooties 2003b).

Australia has had an important part in the SEAFMD campaign by providing financial and technical support to this initiative to reduce the risk of FMD in the region. AusAID is a major donor for the campaign, with A\$2.6 million approved to support this activity (Animal Health Australia 2003). As previously detailed, the Australian CVO has a key involvement and travelled with the Regional Coordinator in 2002 to meet senior Myanmar government officials to discuss disease management issues. In 2003, an AFFA veterinarian provided consultancy services when visiting countries involved in establishing the FMD-free zone in the Malaysia-Thailand-Myanmar Peninsula.

Network of aquaculture centres in Asia-Pacific

Australia is a member of NACA, which is an inter-governmental organisation that aims to use aquaculture to promote rural development in the Asia-Pacific region. NACA's partners include the FAO, OIE, AusAID and ACIAR. AFFA is working with NACA to implement the latest five-year work plan (2001–2005). In 2002, NACA established the Asia Regional Advisory Group on Aquatic Animal Health (Network of Aquaculture Centres in Asia-Pacific 2003). An AFFA officer is Vice-President of the group, as well as representing the OIE Aquatic Animal Health Standards Commission at meetings.

The Group is undertaking activities such as reviewing the regional aquatic animal disease reporting list to ensure it meets international reporting requirements. This will assist countries to implement appropriate control measures to contain and eliminate new or emerging aquatic animal disease outbreaks. The Group will develop criteria for recognition of Regional Aquatic Animal Health Resources Centres. Additionally it will also develop a process for revising the *Asia Regional Technical Guidelines on Health Management for the Responsible Movement of Live Aquatic Animals*, and to support the companion documents *Manual of Pro-*

cedures and *Asia Diagnostic Guide for Aquatic Animal Diseases*.

Complementary activities that AFFA has been involved with include participating in national training workshops on aquatic animal health management in the Republic of the Philippines and Indonesia, and a training course on disease diagnosis and surveillance for cultured aquatic animals in Vietnam and China.

At the 'Diseases in Asian Aquaculture Conference' held on the Gold Coast in November 2002, three Australian epidemiologists including one AFFA officer prepared and presented a satellite workshop on 'Epidemiology and Biosecurity in Aquaculture'. Thirty-five participants from a range of countries took part in sessions covering topics such as zoning, surveillance systems, sources of information on the web, reporting systems and the use of health information in import risk analyses.

Emergency management and training — Indonesia

A training program, that has been conducted in four parts over five years, has aimed to develop a better mutual understanding of Australia's and Indonesia's emergency management arrangements for animal diseases. The main objective of the program was to improve the understanding Indonesia's animal health officials have of Australia's experience and arrangements for handling animal disease emergencies. However, the program also provided an opportunity for Australia to learn from Indonesia's experience in managing animal disease outbreaks.

As a result of the program, Indonesian officials have gained greater confidence in the integrity of Australian responses to emergency animal disease incidents. They were also able to draw on this knowledge and experience to enhance their own prevention, preparedness and response activities. There was a clear mutual benefit to both countries in helping to further protect the region from the intrusion of exotic animal diseases.

The initial catalyst for the program was the significant outbreak of anthrax in northern Victoria in 1997. After this outbreak, five Indonesian animal health officials visited Australia for an extensive training program on emergency disease preparedness and response that included field visits and training provided by the Commonwealth and State departments responsible for agriculture.

This was followed up in 1999 and 2001 by workshops in West Java and Bali, involving an AFFA officer, and officers from State departments. The workshops' objectives were to provide selected provincial and district animal health officials with an overview and understanding of emergency animal disease management procedures, as well as having the opportunity to discuss Indonesian preparedness plans.

Building on the earlier activities, another workshop was held in 2002 in Jayapura, Papua. There were thirty-one Indonesian participants, including quarantine, laboratory and livestock services staff. Emphasis was placed on the increasing threat of FMD to both Indonesia and Australia, due to the disease's spread in 2000 and 2001 to affect countries previously free of FMD. The outputs from the workshop were improved knowledge and ability to respond to emergency animal health incidents, and further development and use of manuals (both Indonesian and Australian) covering management and technical procedures.

Areas covered in the training and workshops included the technical Australian Veterinary Emergency Plan, or AUSVETPLAN (Animal Health Australia 2002), legal powers, surveillance and early warning systems, and reviews of Indonesian, Australian and international experience with preparing and/or responding to specific diseases such as anthrax, lyssavirus, BSE and FMD.

Conclusion

The mutual benefits arising through bilateral animal health projects in the region are usually obvious. However Australia's involvement in multilateral animal health activities, both globally and regionally, generally also has less obvious mutual benefits related to systems and standards development.

The exchange of expertise and information between Australia and regional countries continues to strengthen knowledge and understanding on animal diseases and to assist with their control. The type of activities described above must be continued, and where possible expanded, to the mutual benefit of the countries involved.

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