



Submission No 85

Inquiry into Australia's Relationship with Timor-Leste

Name: Department of Agriculture, Fisheries and Forestry – Answers to questions on notice

Joint Standing Committee on Foreign Affairs, Defence and Trade
Foreign Affairs Sub-Committee

Department of Agriculture, Fisheries and Forestry

Committee inquiry: Australia's relationship with Timor-Leste
Date Held: 22 May 2013

Question Taken on Notice

Senators asked officers appearing as witnesses at the Joint Standing Committee on Foreign Affairs, Defence and Trade hearing held on 22 May 2013 the following questions which were taken on notice:

Aquaculture

1. Are there opportunities to develop fish farming in Timor-Leste?
 - If yes, how could Australia assist?
 - What are the impediments to developing a successful aquaculture industry in Timor-Leste?

Answer:

Opportunities for fish farming in Timor-Leste

Food security and sustainable food production systems remain major issues in Timor-Leste. Recent years have seen few gains in nutrition indicators; rates of child malnutrition and infant mortality in particular are amongst the worst in the world. Fish represents a high quality protein source, most significantly providing a range of important trace elements and fatty acids that have particular relevance to improving nutrition among women and children. Integrated aquaculture systems and capture fisheries provide a sustainable mechanism to improve food security in a way that is pre-adapted to climate variability and integrates with broader development objectives. The government of Timor-Leste in conjunction with several international development agencies has recently released the "Timor-Leste National Aquaculture Development Strategy (2012-2030)" (Attachment A). In addition there is a substantive scientific report that backs up this strategy which is available from the FAO website at www.fao.org/docrep/field/009/an030e/an030e00.pdf. The national strategy has recently been ratified by Parliament and adopted as a roadmap for the aquaculture industry. There is reportedly strong demand from the Government for investment in the fisheries and aquaculture sectors and the strategy forms a valuable guide for staged investment and achieving impact through aquaculture industry development. A key objective of the strategy is to provide a basis for improved coordination of donor inputs which, to date; have been sporadic and inadequately focussed.

Potential aquaculture development

According to the *Analyses of the Current Situation and Potential for Aquaculture Development in Timor-Leste*, over half of Timor-Leste's fish farming households are concentrated in Ermera, Baucau and Bobonaro. This is thought to be due to access to hatcheries and a favourable resource base. The aquaculture industry in these areas reportedly could be expanded. The analysis report further suggested that Geographic Information System modelling for agro-ecological niches found that these three districts were most favourable for freshwater aquaculture (based on bio-physical conditions, access to input supply, proportion of farmers with aquaculture experience and accessibility to market).

Hatchery managers are reported as being confident that there is potential for a 10 fold increase in fingerling production, even with the existing hatchery facilities and it is suggested that they could potentially produce over four million fingerlings annually. The analysis report indicates that seaweed culture has been one of the major income-generating activities in the areas where seaweed farming is located (primarily Atauro) and that growing concerns over marketing issues could be addressed by 'empowering' farmers' groups and cooperatives to explore markets themselves and negotiate directly with importers.

A value chain analysis of seaweed production systems found the seaweed farming plays an important role in the diversification of the livelihoods of coastal communities. The value chain analysis identified possible areas for intervention to increase the economic viability and sustainability of seaweed farming in Timor-Leste. However, the analysis noted that the expansion of this industry can only be justified if there is an increase in the needs of the export market.

Sea cucumbers reportedly offer potential for developing environmentally benign and economically viable production systems in Timor-Leste and research efforts to develop simplified hatchery technology elsewhere could provide viable options for hatchery development in more remote areas.

The economic viability of the freshwater aquaculture systems that are currently practiced are, reportedly low because of low productivity and low financial returns. The analysis report noted that devising low cost feeding technologies with effective utilisation of locally available resources would be vital to increase the efficiency of homestead aquaculture systems. The analysis report also indicated that there is potential for improving the performance of the current 'extensive' fish culture systems by moving to a 'semi-intensive' level (intensive aquaculture involves intervention in the growing process, such as with supplemental feeding and water aeration, whereas extensive aquaculture allows the stock to grow on its own, using natural food sources and conditions) using a balanced approach to ensure optimal levels of productivity and efficiency from aquaculture in a sustainable way.

Small-scale fisheries in Timor-Leste

Aquaculture alone cannot meet national targets for improved food security through fish production and there are substantial opportunities through well-managed development of the pelagic fishing sector and improved governance of inshore fisheries. Similar to aquaculture, major components of coastal fisheries development and governance have been neglected in recent years. The FAO Regional Fisheries

Livelihoods Program operated in Timor-Leste over the past four years and made some headway in addressing substantive issues. However this program will finish within a few months.

WorldFish advises that a strategy and implementation plan similar to that developed for aquaculture is required and that existing legislation is inappropriate (borrowed from Mozambique due to language commonalities) and will not provide for the types of sustainable, food-security focused development necessary in Timor-Leste. WorldFish noted that Timor-Leste's capacity to implement any form of fisheries governance system is weak, data availability is poor and that co-ordinated investment in capacity building, governance and data systems is required.

How could Australia assist?

WorldFish suggest that there are a number of ways that Australia can potentially assist in the roll-out of the National Aquaculture Development Strategy and in improving fisheries governance. The National Aquaculture Development Strategy highlights a number of 'quick wins' that can have substantive impact. While inland aquaculture production was substantial during Indonesian times, this capacity has largely been lost. A plan for infrastructure redevelopment has been produced, and implementing this plan would be a significant contribution that would see substantive increases in fish production in the short term. Beyond this, a small and medium sized enterprise approach to aquaculture development means that further investment throughout the value chain will be necessary.

WorldFish also suggest that Australia is well positioned to assist with training needs and supporting staff within the National Directorate of Fisheries and Aquaculture to pursue further studies in priority areas at advanced international institutions. WorldFish report that this would provide a rapid and much needed boost in human capacity. In the longer term, the development of national capacity for training in these areas could be achieved through partnership arrangements with Australian institutions.

Existing partnerships and communication among the government and non-government sector are reported by WorldFish as being positive, providing a good basis for coordinating investments in the sector.

Impediments to developing a successful industry

According to the analysis report, up to date and accurate statistics on the fish farming/hatchery industry in Timor-Leste are lacking. The report indicates that of the four freshwater hatcheries operating in Timor-Leste, all of them are operating at very low capacity due essentially to the shortage of appropriately trained staff and inadequate physical facilities. The National Directorate of Fisheries and Aquaculture notes that there is few staff trained in technical aspects of fish culture, and few prospects for this to improve without assistance from external institutions/agencies. An assessment of hatcheries found that brood fish were poorly managed, due to inadequate human and financial resources for feeding and management and that farmers lack access to promising aquaculture technologies that are suitable for their resource base and context. The analysis report found that many farmers feed their fish

with only rice bran and kitchen wastes. Traditionally, pellets have only been fed to fish when they were supplied free of charge.

Reliable infrastructure (roads, irrigation, and electricity) is necessary for a successful aquaculture industry. A reliable road network is needed for the transportation of seed and feed and also of fish products to local and distant markets. Currently, 90 per cent of national and district roads in Timor-Leste are in poor condition, requiring urgent repair or rebuilding.

Information sourced from

- WorldFish - a member of the Consultative Group on International Agricultural Research (CGIAR) Consortium and is an international non-profit research organisation.
- Analyses for the Current Situation and Potential for Aquaculture Development in Timor-Leste, National Directorate of Fisheries and Aquaculture, Ministry of Agriculture and Fisheries, Timor-Leste, 2012.

Biosecurity cooperation

2. Are there risks of exotic weeds and plant diseases reaching Australia from Timor-Leste?
 - If yes, would you provide details?
 - How are you addressing this risk?

Answer:

Detainment of items of quarantine concern entering Australia through Darwin from Timor-Leste

Answer:

The Australian Government is committed to a modern, science-based biosecurity system. Reforms to Australia's biosecurity system at ports, airports and mail centres are improving the efficiency of our biosecurity regulatory system for goods moving into the country while continuing to manage the risks to Australia's enviable biosecurity status. The reforms assist compliant cargo to be processed more quickly than non-compliant cargo that may require additional inspection and treatment.

The items that DAFF commonly encounters on return flights from Timor Leste include:

- Rawhide drums
- Unidentified seed necklaces/jewellery
- Wooden souvenirs
- Woven baskets
- Timor Coffee
- Sago flour
- Processed almonds in cooking
- Bottles of home-made Chilli sauce
- Churizo (Portuguese sausage)

Standard advice about the types of commodities that can be brought into Australia by travellers can be found at www.daff.gov.au/aqis/travel. In addition, DAFF continues to work with tour groups and special event organisers that travel to Timor Leste to provide specific advice about the quarantine requirements related to their return to Australia. This information includes reference to Australia's import conditions for commodities can be searched at www.daff.gov.au/icon (ICON).

ICON identifies the types of goods that may be imported, the conditions for their import, and includes treatments that must be applied before they may enter Australia. Some commodities, including untanned or insufficiently treated animal skins, meat, eggs, seeds and other plant material may pose an unacceptably high risk for the introduction of exotic diseases. These items must be declared and may either be inspected, treated or surrendered for destruction to protect Australia's plant and animal health and environment. Many declared items are returned following inspection – for Timore Leste this commonly includes processed food and roasted coffee. However, items that need to be treated to manage the biosecurity risk are done at the expense of the owner.

In Darwin two forms of biosecurity treatment are offered: gamma irradiation and methyl bromide fumigation. Items such as woven baskets and wooden articles may be treated by methyl bromide fumigation that occurs locally in Darwin. Artefacts including, drums, bark, plant and herbarium specimens, including seed jewellery, require gamma irradiation – which occurs in Sydney.

In either case, treated goods may either be collected from DAFF's Darwin offices or are posted to clients. Unfortunately, the cost of these treatments (\$30-60) often exceeds the value of the goods, which passengers may then decide to surrender for destruction (at no cost to the client). It should be noted that during a period of relocation from May-December 2012, the Darwin fumigator was unable to provide the methyl bromide service for goods and packages. During this time, passengers could only be offered the more costly option of gamma irradiation to treat goods on arrival.

There is a long established and collaborative partnership between DAFF and the Australian Customs and Border Protection Service (Customs). Our officers work side-by-side at Australia's airports, seaports and mail centres supporting legitimate trade and travel and protecting the Australian community from a range of border and biosecurity risks.

DAFF and Customs collaborate to protect Australia, the environment and the community into the future. A recent initiative arising from the Customs-DAFF partnership is the alignment of policy and regulation for first points of entry. This work seeks to reduce red tape for clients and industry by aligning arrangements as far as practical.

Proposed poultry program

3. Would you provide an outline of your proposed poultry program—its scope and hoped for outcomes?

Answer:

Village Poultry Health

The proposal seeks to improve the productivity of village poultry by making appropriate changes to the long-held traditional poultry production system. This is typically difficult to do sustainably. Accordingly the scope is limited to 3 targeted villages to allow adequate resourcing of each village and improve the likelihood of sustainable outcomes. These villages could then be used as examples and local advocates for implementation more broadly in subsequent projects.

It will result in knowledge of measures that will increase village poultry production in the selected locations. These will come from a village poultry health program developed in conjunction with villagers and staff from the Timor-Leste Ministry of Agriculture and Fisheries. This program will become part of MAF's recurrent animal health activities.

This proposal supports sustainable economic development, promoting opportunities for all and saving lives. Village poultry particularly through egg production provides a source of protein. The short production cycle of poultry means that increases in production can be rapidly achieved. The involvement of both male and female village members in poultry production supports involvement of most village members in the proposed initiative. Surplus eggs and poultry are potential sources of village income and support the village economy.

Timor-Leste has one of the highest rates of child stunting in the world. Increasing the production of low cost, high quality protein in the form of eggs, would improve a vital component of village children's diet. Increased nutrition of children supports health at a number levels – growth and development, susceptibility to disease and performance at school.

Quarantine Strengthening

Timor-Leste's quarantine system is in need of review, a long term plan and adequate resourcing. The proposal seeks to review the animal health quarantine system, provide recommendations and capacity building activities in targeted areas identified in the review. It will particularly focus on the land border with Indonesia and on poultry disease introduction risks. It cannot provide the ongoing resourcing that a modern biosecurity system requires but can improve quarantine's structure, risk analysis, review and implementation of protocols, and capacity to budget and advocate for resources within the Timor-Leste system of Government.

It seeks to strengthen Timor-Leste's ability to prevent exotic disease incursions across its borders with Indonesia. This objective complements the aim of improving village poultry production because of the important impact of poultry diseases in Timor-

Leste. Strengthening quarantine at the border will help reduce the likelihood of recurrent introduction of Newcastle's disease from West Timor and maintain Timor-Leste's freedom from highly pathogenic avian influenza, which is endemic in Indonesia.

Increasing awareness of biosecurity in villages can also reduce the recurrence and impact of Newcastle disease on village poultry production. Quarantine strengthening will also reduce the likelihood of introducing other exotic animal diseases.

More effective quarantine supports efforts to increase village poultry production by reducing the risk of disease introduction across the international land border with Indonesia. This supports village health, village prosperity and is a sector where rapid improvement can be achieved.