

# Chapter 1

## Introduction

### Inquiry terms of reference and interim report

1.1 On 22 March 2011, the Senate referred the following matter to the Senate Rural Affairs and Transport References Committee for inquiry and report by 8 April 2011:

- (a) the science underpinning the technical assumption that *Apis cerana*, the Asian honey bee, cannot be eradicated in Australia;
- (b) the science underpinning the assumption that the Asian honey bee will not spread throughout Australia;
- (c) the science relating to the impacts of the spread of the Asian honey bee on biodiversity, pollination and the European honey bee; and
- (d) the cost benefit of eradication of the Asian honey bee.<sup>1</sup>

1.2 On 7 April 2011, the committee tabled an interim report, and indicated that it required additional time to consider the evidence presented to the inquiry, and would table its final report on 30 June 2011.

1.3 The committee's interim report focused on the science underpinning the decision that it was not technically feasible to eradicate the Asian honey bee from Australia. This report considers developments since the tabling of the interim report, as well as the initial response to the 2007 incursion, and the extent of the contribution to that initial response of industries that are reliant on or related to the honey bee industry.

### Conduct of the inquiry

1.4 Notice of the inquiry was posted on the committee's website. The committee also advertised the inquiry in *The Australian* on Wednesday, 30 March 2011 and wrote to key stakeholder groups, organisations and individuals to invite submissions.

1.5 The committee received fifty-three submissions, including three supplementary submissions, which are listed at Appendix 1.

1.6 The committee held two public hearings in Canberra, on 24 and 31 March 2011. A list of witnesses who appeared at the hearings is at Appendix 2. The *Hansard* transcripts are available on the internet at <http://aph.gov.au/hansard>.

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1 The inquiry's terms of reference and other information are available on the committee's website at [http://www.aph.gov.au/Senate/committee/rat\\_ctte/bees\\_2011/tor.htm](http://www.aph.gov.au/Senate/committee/rat_ctte/bees_2011/tor.htm).

## **Background to the inquiry**

### ***Process for attempting to eradicate pest incursions***

1.7 The attempt to eradicate the Asian honey bee following its incursion into Australia has been primarily dealt with through existing processes for dealing with emergency plant pests.<sup>2</sup>

1.8 The eradication of emergency plant pest incursions which pose a potential threat to Australia's agricultural industries is conducted in accordance with a coordinated national response plan, the National Emergency Preparedness and Response Plan (the response plan). The response plan specifies the procedures for handling emergency plant pest incursions at the national, state, territory and district levels.

1.9 Upon the detection of an emergency plant pest and declaration of an outbreak, the Consultative Committee on Emergency Plant Pests (CCEPP) meets to determine the feasibility of eradication. The CCEPP is Australia's key technical body for coordinating national responses to emergency pest incursions and assessing the technical feasibility for their eradication. The CCEPP makes recommendations to the (in this case, Asian Honey Bee) National Management Group (NMG), which is the decision making body that determines whether to proceed with an eradication campaign and, if so, approves the national cost sharing arrangements to fund the campaign.<sup>3</sup>

1.10 Funding for eradication campaigns is allocated under the Emergency Plant Pest Response Deed (EPPRD), a formal cost sharing agreement covering industry and government funding arrangements for the eradication of emergency plant pests. Under the EPPRD, government and plant industry signatories share the costs of eradicating emergency plant pests based on an assessment of the relative private and public benefits of eradication of the pest (see Table 1 below).

1.11 If a national emergency response is agreed under the plant health deed, the Commonwealth pays 50 per cent of the government share in all instances, with the balance of the government share divided between the relevant states and territories.<sup>4</sup>

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2 See below under 'Emergency response categorisation' for more detail.

3 The (Asian Honey Bee) NMG is chaired by the Commonwealth and comprises chief executive officers from the state and territory departments of agriculture and primary industries, as well as representatives of the Australian Honey Bee Industry Council and Plant Health Australia (Department of Agriculture, Fisheries and Forestry, 'Communique', 2 February 2011, p. 1, [http://www.daff.gov.au/about/media-centre/communiques/update\\_on\\_response\\_to\\_asian\\_honeybees](http://www.daff.gov.au/about/media-centre/communiques/update_on_response_to_asian_honeybees), accessed 30 May 2011).

4 Department of Agriculture, Fisheries and Forestry, *Answers to questions taken on notice*, 31 March 2011, p. 1.

**Table 1 – EPPRD cost sharing categories**

Category of disease	Cost share
Category 1: Very high public benefits	100% public funding
Category 2: High public benefits	80% public funding 20 % private funding
Category 3: Moderate public benefits	50% public funding 50% private funding
Category 4: Mostly if not wholly private benefits	20% public funding 80% private funding

**Source:** Plant Health Australia website, 'Pest categorisation', <http://www.planthealthaustralia.com.au/go/phau/epprd/pest-categorisation>, accessed 2 June 2011.

### ***Asian honey bee incursion at Cairns, May 2007***

1.12 In May 2007, a nest of Asian honey bees was detected within Australia's quarantine barrier in the mast of a fishing boat in dry dock in Cairns. Since that first detection, more than 350 colonies of the bee have been detected and destroyed in the Cairns region.

1.13 The Asian honey bee is an invasive species which adversely affects populations of European honey bees by competing for floral resources, robbing managed hives and transmitting disease. The strain of Asian honey bee found in the Cairns region is the Java strain, which is common in Asia, particularly in Indonesia and Papua New Guinea where it was introduced in the 1970s and 1980s. Since 1995, 10 swarms of Asian honey bees, mostly originating from the island of Papua New Guinea, have been intercepted and destroyed on vessels at Australian seaports. An incursion in June 1998 at Darwin was successfully eradicated.

1.14 The Asian honey bee is also a natural host for the *Varroa* mite, a parasite that attacks developing bee larvae or adult bees and which has been connected to colony collapse disorder. Because it is a vector for the *Varroa* mite, the Asian honey bee represents a significant threat to Australian beekeeping industries and industries that depend on managed honey bees for pollination.

1.15 The Department of Agriculture, Fisheries and Forestry (the department) website describes the following effects of the *Varroa* mite:

Attack by varroa mite weakens bees, shortens their lives, or causes death from virus infections that would otherwise cause little harm. In severely attacked colonies bees may have stunted wings, missing legs or other

deformities. Unless urgent action is taken, the vitality of bees in the colony declines until all are dead.<sup>5</sup>

1.16 The department website also outlines a number of very significant risks to Australia should the *Varroa* mite establish itself in Australia:

The most obvious threat is to Australia's bee and honey industries. The *Varroa* mite would decimate Australia's feral bee population and cause a rapid increase in demand for pollination services. It is estimated that *Varroa* mite could cost Australian plant industries between \$21.3 million and \$50.3 million per year over thirty years...Apart from reduced honey production, apiarists would need to repeatedly treat their hives to ensure their survival.

However, the major part of the cost of *Varroa* would probably be felt not by the honeybee industry but by other industries with crops that rely on honeybees for pollination, including almonds, avocados, cotton, stone fruits, pome fruit, melons and pumpkins.

*Varroa* mites were discovered in New Zealand in 2000 and have already had a major economic impact, with significant control costs and losses of bees, hives, honey production, crop yields and export revenue.<sup>6</sup>

### ***Emergency response categorisation***

1.17 At the time of the detection of the Asian honey bee incursion in Cairns in May 2007, the species was not listed as a pest species under either the Emergency Animal Disease Response Agreement (EADRA)<sup>7</sup> or the EPPRD, and therefore was not covered by any existing cost sharing arrangements under the EADRA or the EPPRD.<sup>8</sup>

1.18 However, the initial response to the Asian honey bee incursion was managed consistent with the provisions of the EADRA, which is the equivalent set of arrangements to the EPPRD for emergency animal diseases. Queensland, as the jurisdiction responsible for the direct management of the incursion,<sup>9</sup> elected to

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5 Department of Agriculture, Fisheries and Forestry, 'Varroa mite', <http://www.daff.gov.au/animal-plant-health/pests-diseases-weeds/animal/varroa-mite>, accessed 7 April 2011.

6 Department of Agriculture, Fisheries and Forestry, 'Varroa mite', <http://www.daff.gov.au/animal-plant-health/pests-diseases-weeds/animal/varroa-mite>, accessed 7 April 2011.

7 The EADRA is the equivalent set of arrangements to the EPPRD for animal diseases – that is, it is a formal cost sharing agreement covering industry and government funding arrangements for the eradication of emergency animal pests.

8 Ms Nicola Hinder, Department of Agriculture, Fisheries and Forestry, *Committee Hansard*, 31 March 2011, p. 4; and Department of Agriculture, Fisheries and Forestry, *Answers to questions taken on notice*, 24 March 2011, p. 2.

9 Department of Agriculture, Fisheries and Forestry, *Answers to questions taken on notice*, 31 March 2011, p. 1.

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manage the incursion consistent with this agreement on the basis that the bee could act as a carrier of *Varroa* and other mites.<sup>10</sup>

1.19 In answer to a question on notice, the department provided the following advice on the emergency response categorisation of the incursion up until late 2009:

In March 2009, Queensland prepared a response plan proposing national cost-sharing for the Asian honey bee response. The response plan was prepared against the requirements of the EADRA. In May 2009, Plant Health Australia, at the request of its members and as custodians of the EPPRD, commenced considering options to vary the EPPRD to specifically include bee pests and pest bee species.

In July 2009, the National Biosecurity Committee determined that the current, and any future incursion of Asian Honey bees, should be managed in accordance with the EPPRD as the potential impact of the bee was as a 'plant pest' rather than an animal disease. The decision was also reflective of the parties that may be impacted by an incursion of a bee pest or pest bee species, including the pollination reliant industries that are parties to the EPPRD.

In November 2009, the Primary Industries Ministerial Council (PIMC) agreed that the Asian honey bee eradication program should be managed in accordance with the EPPRD.

All parties to the EADRA and the EPPRD, have agreed to transition bee pests to the EPPRD and to the inclusion of the Asian honey bee as a pest bee in the EPPRD.<sup>11</sup>

1.20 The Asian honey bee was classed as a Category 2 pest, meaning that the cost of eradication was split 80/20 to public and private funding respectively (see Table 1 above). Activities to eradicate the Asian honey bee in the Cairns region were, accordingly, funded by the Australian Government, state and territory governments and the Australian Honey Bee Industry Council (AHBIC).

1.21 The eradication effort under the emergency response arrangements ceased on 30 March 2011 as a direct result of the decision that the Asian honey bee is not eradicable. Queensland has continued to fund the eradication efforts in place at that time.

1.22 Chapter 2 of this report considers, inter alia, the initial response to and management of the 2007 Asian honey bee incursion.

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10 Ms Nicola Hinder, Department of Agriculture, Fisheries and Forestry, *Committee Hansard*, 31 March 2011, p. 4; and Department of Agriculture, Fisheries and Forestry, *Answers to questions taken on notice*, 24 March 2011, p. 2.

11 Department of Agriculture, Fisheries and Forestry, *Answers to questions taken on notice*, 24 March 2011, p. 2.

## **Acknowledgement**

1.23 The committee thanks those organisations and individuals who made submissions and gave evidence at the public hearing.

## **Note on references**

1.24 References in this report to individual submissions are to those submissions as received by the committee, not to a bound volume. References to the committee *Hansard* are to the proof *Hansard*; page numbers may vary between the proof and the official (final) *Hansard* transcript.