

# Chapter 2

## Risk analysis

2.1 This chapter reviews matters relating to Biosecurity Australia's (BA) administration of the import risk analysis (IRA) process for the importation of Cavendish Bananas from the Philippines. The chapter also considers the scientific and technical information relied upon by the IRA team throughout this process.

2.2 The committee considered a number of the matters raised in this chapter in the report of its 2005 inquiry into the revised draft import risk analysis for bananas from the Philippines.<sup>1</sup> The committee's intention in re-examining these matters is to note developments since the tabling of its 2005 report.

### **Biosecurity Australia's administration of the IRA process**

#### *Procedures and guidelines*

2.3 As noted in Chapter 1, risk analyses are performed in accordance with the procedural guidance set out in BA's *Import Risk Analysis Handbook* (the Handbook). The methodological framework for the assessment of risk is set out in BA's *Guidelines for Import Risk Analysis* (the Guidelines). The committee notes the significance of both of these documents in setting the policy and scope of the IRA process. The Guidelines in particular play a pivotal role in shaping the pest thresholds and risk management measures that will be relied upon in the consideration of import applications for bananas from the Philippines.

2.4 The committee notes that the Handbook is publicly available and therefore accessible by all parties to an IRA process. However, the Guidelines are internal working documents and only drafts, never finalised documents.<sup>2</sup>

2.5 BA has previously advised the committee that it was reviewing the IRA methodology, with the implication that a number of the matters raised during that

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1 Senate Rural and Regional Affairs and Transport Legislation Committee, Administration of Biosecurity Australia – Revised draft import risk analysis for bananas from the Philippines, March 2005.

2 Independent Review of Australia's Quarantine and Biosecurity Arrangements Report to the Australian Government (The Beale Review), September 2008, p. 97. The committee recognises that many agencies employ internal guidelines to guide various activities undertaken by the agency and that it is common for these to be unpublished working documents. However, in its earlier inquiry the committee noted that the Guidelines establish the methodology that underpins the IRA process and how this methodology will be applied and interpreted.

inquiry would be considered as part of that review.<sup>3</sup> From the committee's reading of the final IRA report, it is not clear whether such a review has taken place or if any changes have been made to the Guidelines as a result.

2.6 The committee also notes that there appear to be several sets of draft Guidelines in existence.<sup>4</sup> The committee notes that the methodology employed in the Final Bananas IRA appears to have been drawn from both the 2001 and 2003 draft Guidelines.<sup>5</sup>

#### *Committee view*

2.7 The committee is concerned that the Guidelines are not publicly available and that stakeholders to the IRA process may not have had an opportunity to participate in any review of the IRA methodology. The committee considers that, given the significant role that the methodological framework set out in the Guidelines plays in shaping and explaining the analytical approach adopted in any given IRA, there is merit in making the Guidelines publicly available. The committee believes that all stakeholders in an IRA process are entitled to know the methodological parameters within which the IRA is undertaken.

2.8 The committee also notes that while the Guidelines may be reviewed from time to time, it is not clear whether public/stakeholder input is sought in the context of any such reviews. The committee has some concerns about such reviews being undertaken in isolation. The committee considers that, as a minimum, any subsequent changes to the methodology as a result of a review ought to be publicised.

#### *Consultation*

2.9 The committee is mindful of the significant role played by effective consultation in establishing stakeholder confidence in the IRA process. This committee, and other bodies, have made a range of suggestions over a long period of time aimed at improving the way in which stakeholders are engaged in IRA processes. The committee notes that for the most part BA has been responsive to such suggestions.

2.10 Since the committee's earlier inquiry, the Government has established an Eminent Scientists Group (ESG) to provide independent advice to the Director of Animal and Plant Quarantine on whether the IRA has adequately considered all technical submissions received from stakeholders during the formal consultation

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3 Senate Rural and Regional Affairs and Transport Legislation Committee, Administration of Biosecurity Australia – Revised draft import risk analysis for bananas from the Philippines, March 2005, p. 19.

4 Independent Review of Australia's Quarantine and Biosecurity Arrangements Report to the Australian Government (The Beale Review), September 2008, p. 97.

5 See Biosecurity Australia, *Final Import Risk Analysis Report for the Importation of Cavendish Bananas from the Philippines*, Part B, November 2008, pp. 18, 20, 43.

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period of the draft Final IRA. The ESG reviewed the draft final IRA and concluded that BA had responded to the issues raised, where appropriate, by including additional information in the draft final report and by making revisions to the text. The ESG also commented that the responses made to issues raised, especially in relation to Moko disease, are of a high quality and carefully address the concerns of stakeholders.<sup>6</sup>

2.11 However, the committee notes concerns raised during this inquiry with regard to the difficulties stakeholders often experience in responding to detailed and complex IRA material within the stipulated time lines. The committee received in-camera evidence suggesting that there is a perception that the IRA time lines are unrealistic and uncompromising when contrasted with the often drawn out nature of the overall IRA process and the extent of expertise and resources available to BA.

2.12 Mackay Estates and Scientific Advisory Services Pty Ltd (Mackay Estates) advised the committee that it had sought an extension of time in which to lodge an appeal following the release of the final IRA report, but that this had not been granted. Mackay Estates submitted that it had found it difficult to read and digest the 600 page document to determine what changes had been made from the previous draft in the time available.<sup>7</sup> Mackay Estates summed up its frustration by saying:

It seems that BA has had forever to get this IRA right, yet an extension for stakeholders has been rejected now that they find themselves under pressure to have this IRA finalised. It must be acknowledged that throughout the banana IRA, it has been the inputs of stakeholders that have helped to remove errors and ensure that good science is being practiced. Another 30 days would surely not have been a major imposition on a system that has taken more than 7 years to get to this critical stage.<sup>8</sup>

#### *Committee view*

2.13 The committee notes that the broad issues of consultation and time lines in the IRA process have been considered by both the Australian National Audit Office, in its 2005/2006 audit of quarantine effectiveness, and by the Independent Review of Australia's Quarantine and Biosecurity Arrangements (the Beale Review).<sup>9</sup> The committee concurs with the observation of both of these reviews that while a number of improvements have been made to the IRA consultation process, there is scope for further improvement. In particular, the committee notes the ANAO finding that 'BA could further improve its management of the IRA process, and thereby increase stakeholder confidence in its decision-making processes, by addressing, [among other

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6 Department of Agriculture Fisheries and Forestry, *Submission 3*, Attachment 1, p. 2.

7 Mackay Estates and Scientific Advisory Services, *Submission 9*, p. 2.

8 Mackay Estates and Scientific Advisory Services, *Submission 9*, p. 2.

9 Refer: Australian National Audit Office, *Managing Quarantine Effectiveness – Follow-up*, 2005/2006, The Independent Review of Australia's Quarantine and Biosecurity Arrangements Report to the Australian Government, *One Biosecurity: A working partnership*, 30 September 2008, pp. 121 – 123.

things], the period of notice to be given to stakeholders prior to the release of Import Risk Analysis documents.<sup>10</sup> The committee notes from the Beale Review that, while this recommendation was accepted by BA, it does not appear to have been fully implemented to date.<sup>11</sup> The committee recommends that this situation should be remedied in future IRA processes.

### **Scientific and technical information relied upon by the IRA team**

2.14 The SPS Agreement defines Risk Assessment as:

The evaluation of the likelihood of entry, establishment or spread of a pest or disease within the territory of an importing member according to the sanitary or phytosanitary measures which might be applied, and of the associated potential biological and economic consequences.<sup>12</sup>

2.15 The SPS Agreement provides for risk assessment that takes account of:

- available scientific evidence;
- relevant processes and production methods;
- relevant inspection, sampling and testing methods;
- prevalence of specific diseases or pests;
- existence of pest-or-disease free areas;
- relevant ecological and environmental conditions; and
- quarantine or other treatment.

2.16 The final IRA report begins its analysis by considering the sequence of steps from immediately before bananas are harvested until their release from quarantine in Australia and assigns a value for the proportion of clusters of bananas that are infected or infested after passing through each step. The broad steps are:

- the proportion of plantations where the pest is present;
- the pest level within a plantation;
- contamination by the pest before packing;
- pest level surviving packing procedures;
- contamination during packing;
- pest level surviving post-packing processes;
- contamination by the pest during post-packing processes;

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10 Australian National Audit Office Report No. 19, 2005-06, *Managing for Quarantine Effectiveness-Follow up*, p. 44.

11 The Independent Review of Australia's Quarantine and Biosecurity Arrangements Report to the Australian Government, *One Biosecurity: A working partnership*, 30 September 2008, p. 22.

12 Import Risk Analysis Handbook, 2007, Annex 2, p. 31.

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- pest level remaining after border procedures; and
  - number of infected/infested clusters.

2.17 For each pest identified under the IRA process, the IRA evaluated the risk associated with the importation of bananas without any prescribed phytosanitary measures (the 'unrestricted' risk). Where the unrestricted risk was above Australia's acceptable level of risk (ALOP) the IRA considered what risk management options might be available to achieve an ALOP.

### ***Appropriate time horizon for risk assessment***

2.18 In the 2004 draft IRA the assessment of the probability of entry, establishment and spread of pests was based on one year, in keeping with the Guidelines.<sup>13</sup> The committee concluded that limiting assessments to a one year time horizon was an unduly short term view and noted that knowing the risk over a 10 or 20 year time frame is obviously a matter of great concern to stakeholders. The committee also noted that there seemed to be no clear justification for limiting risk assessment to a one year horizon in assessing probabilities associated with volume of trade. The committee recommended that the risk assessment methodology should provide for assessment of risk considered over ten years as well as one year.<sup>14</sup>

2.19 Throughout the 2005 Inquiry, BA maintained the position that a 1 year period was justified because it allowed for the estimation of seasonal effects, but did not require long-range predictions regarding trading practices, plant or commodity production factors or pest biology. However, BA advised the committee that it was reviewing the IRA methodology, with the implication that this would be one of the matters considered.<sup>15</sup> However, the committee notes that the time horizon for assessing the probability that the importation of bananas from the Philippines would result in the entry, establishment and spread of a particular pest remains an average year.<sup>16</sup>

### ***How to acknowledge sub-threshold risks on a number of pests***

2.20 In its 2005 inquiry the committee heard evidence that the IRA methodology does not adequately acknowledge a situation where there might be just-below-

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13 Rural and Regional Affairs and Transport, *Administration of Biosecurity Australia- Revised draft import risk analysis for bananas from the Philippines*, March 2005, p. 11.

14 Rural and Regional Affairs and Transport, *Administration of Biosecurity Australia- Revised draft import risk analysis for bananas from the Philippines*, March 2005, pp. 13-14.

15 Rural and Regional Affairs and Transport, *Administration of Biosecurity Australia- Revised draft import risk analysis for bananas from the Philippines*, March 2005, p. 13.

16 Biosecurity Australia, *Final Import Risk Analysis Report for the Importation of Cavendish Bananas from the Philippines*, Part B, November 2008, p. 25.

threshold risk on a large number of pests. The committee noted that '[i]ntuitively, this creates a greater overall risk than just-below-threshold risk on one pest.'<sup>17</sup>

2.21 The committee heard that the risk assessment methodology employed in the Bananas IRA allows for a one pest assessment.<sup>18</sup> The committee noted that some countries employ risk assessment methodologies that are capable of reflecting the cumulative risk of multiple pests. The committee previously recommended that BA should investigate changing the risk assessment methodology to allow for the fact that the total risk is greater, the more pests there are of concern.<sup>19</sup>

2.22 BA advised the committee that it was reviewing the IRA methodology, with the implication that this would be one of the matters considered.<sup>20</sup> However, the committee received in camera evidence during this inquiry that BA's policy for the assessment of the cumulative risks from a number of pests remains unchanged.

### *Use of probability distributions in IRAs*

2.23 In its earlier report the committee considered how clearly the use of probability distributions was explained in the IRA analysis. The committee noted that according to the Guidelines, 'this distribution should be interpreted by 'fitting' it to the most appropriate semi-quantitative category. The approach to fitting that has been adopted by Biosecurity Australia is to compare the fifth, 50<sup>th</sup> (or median) and 95<sup>th</sup> percentiles of the output distribution with the probability intervals.<sup>21</sup> The committee expressed concern that this explanation was not very clear and noted the potential significance for the assessed risk of deciding to report the 50<sup>th</sup> or 95<sup>th</sup> percentile.

2.24 The committee recommended that the IRA Guidelines should state a clearer policy on the use of probability distributions and should explain it better to allay the concerns of stakeholders.<sup>22</sup> During the current inquiry the committee received in camera evidence which suggested that this point has not been addressed either in the Guidelines, which the committee notes are not public documents, or in the final IRA report.

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17 Rural and Regional Affairs and Transport, *Administration of Biosecurity Australia- Revised draft import risk analysis for bananas from the Philippines*, March 2005, p. 14.

18 Rural and Regional Affairs and Transport, *Administration of Biosecurity Australia- Revised draft import risk analysis for bananas from the Philippines*, March 2005, p. 14.

19 Rural and Regional Affairs and Transport, *Administration of Biosecurity Australia- Revised draft import risk analysis for bananas from the Philippines*, March 2005, p. 14.

20 Rural and Regional Affairs and Transport, *Administration of Biosecurity Australia- Revised draft import risk analysis for bananas from the Philippines*, March 2005, p. 14.

21 Rural and Regional Affairs and Transport, *Administration of Biosecurity Australia- Revised draft import risk analysis for bananas from the Philippines*, March 2005, pp. 15-16.

22 Rural and Regional Affairs and Transport, *Administration of Biosecurity Australia- Revised draft import risk analysis for bananas from the Philippines*, March 2005, p. 18.

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*Assessment of probability of entry, establishment and spread, consequences and unrestricted risks*

2.25 The committee previously made note of how the IRA had assessed the probability of entry, establishment and spread (PEES), the consequences and the unrestricted risk for specific diseases and pests across successive drafts of the IRA. The committee sought clarification of the scientific information that had led to changes in the assessment of risk.

2.26 During this inquiry, the committee noted further changes in the risk assessment between the release of the addendum to the June 2004 report and the final IRA report. The committee noted that the PEES for black Sigatoka has been revised from extremely low in the 2004 drafts of the IRA to moderate in the final IRA report. The PEES for freckle has been revised from high in the earlier drafts to low in the final IRA report. The committee again sought clarification of the information or scientific evidence that led to these changes.

2.27 BA told the committee:

It was based on additional information and additional analysis. The documents you are drawing those values from were drafts for consultation. They were out in the public domain. They were exposed to the full force of people who wanted to comment and provide scientific input.

...

That is what the consultation process is about. It would be surprising if we put documents out for consultation and there were not changes that drew upon the material that was provided to us in the consultation process.<sup>23</sup>

2.28 However, the committee notes that its earlier inquiry had concluded that some of the changes between draft reports appeared to have been made without reference any new information.<sup>24</sup> Some changes had resulted from re-analysis or re-calculations using the existing information.<sup>25</sup> The committee also noted that stakeholders disputed a number of the risk factors in that earlier report.

2.29 The committee therefore sought further clarification from BA as to the evidence behind the changes in relation to black Sigatoka and freckle. BA advised the committee:

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23 In camera evidence.

24 Rural and Regional Affairs and Transport, *Administration of Biosecurity Australia- Revised draft import risk analysis for bananas from the Philippines*, March 2005, pp. 25-30.

25 For example, the committee noted the assessment of consequences of an incursion of Moko had been revised from moderate to low between the First and Second Reports following further analysis by the IRA team. Rural and Regional Affairs and Transport, *Administration of Biosecurity Australia- Revised draft import risk analysis for bananas from the Philippines*, March 2005, pp. 25-26.

There is no individual factor that has resulted in the modified overall assessments for black Sigatoka and freckle. Rather, the consideration of all stakeholder comments and new technical information that became available during the IRA process has been taken into account.

In developing the various reports the IRA team considered all relevant technical information including:

- . stakeholder comments; and
- . new scientific and technical publications.

As the reports progressed there was increased knowledge associated with banana pests world wide and this was reflected in the 2004 and 2008 reports (for example, over 45 new, relevant, publications became available in the public domain between March 2007 and July 2008).<sup>26</sup>

2.30 BA provided the committee with copies of all stakeholder submissions received over the course of the IRA together with each of the draft IRAs to enable the committee to determine for itself the extent to which the modification of these assessments was attributable to specific stakeholder comments and new technical information.<sup>27</sup> The committee found this response disappointing.

2.31 BA also advised the committee that the assessment methodology was modified over the course of the IRA process.

Additionally, assessment methodology relied on a full qualitative assessment in 2002 and semi-quantitative models for the 2004 and 2008 reports. In developing the model that was the basis for the 2008 report the IRA team redesigned the model used in producing the 2004 reports, with input from the Bureau of Rural Sciences (BRS) to better reflect the biological and production systems for bananas in the Philippines and the distribution of bananas in Australia.<sup>28</sup>

2.32 The committee received evidence that not all members of the IRA team were satisfied with the modelling employed in the IRA process. The committee was advised in camera that the model used to calculate the likelihood of entry, establishment and spread of pests and diseases lacked the capacity to accommodate all pathways within the Australian environment. As a result the modelling was simplified and intuitive values were used where reputable research did not provide conclusive evidence.<sup>29</sup>

### *Assessment of consequences*

2.33 Risk assessment also involves estimating the potential consequences or impact of a pest establishing in Australia. The IRA assessment considers local,

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26 Biosecurity Australia, Additional Information provided in camera.

27 Biosecurity Australia, Additional Information provided in camera.

28 Biosecurity Australia, Additional Information provided in camera.

29 In camera evidence.

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district, regional and national consequences and allows for consideration of direct and indirect pest effects. Direct effects include potential production losses, control costs and quality loss. Indirect effects include eradication costs, effects on domestic and international trade and impacts on the environment and communities.

2.34 The committee is aware that the consideration of consequences in the IRA process is not as broad as some stakeholders would prefer. The committee notes the observation of the Beale Review that the definition of risk assessment:

... falls short of a conventional national interest assessment. Only biological and economic consequences that are 'associated' with the entry, establishment and spread of the pest or disease are deemed to be relevant. Importantly, Import Risk Analyses do not involve consideration of the broader economic and social issues arising from the impact of competition between imported and domestic productions that may be taken in account in a full national interest test ...<sup>30</sup>

2.35 Article 5 of the SPS Agreement does provide for the consideration of the following economic factors:

- the potential damage in terms of loss of production or sales in the event of the entry, establishment or spread of a pest or disease; and
- the costs of control or eradication in the territory of the importing Member; and the relative cost-effectiveness of alternative approaches to limiting risks.

2.36 However, Article 5 of the SPS Agreement cautions members that, when determining the appropriate level of sanitary or phytosanitary protection, they should take into account the objective of minimizing negative trade effects.<sup>31</sup>

2.37 Notwithstanding these limitations, during its 2005 inquiry, the committee noted concerns regarding the rigour of the assessment of consequences. In particular, submitters during that inquiry were concerned at the lack of quantitative data obtained as part of the analysis of consequences, particularly in relation to the economic consequences of an incursion.

2.38 The committee accepted that some consequences (such as change in social amenity) are harder to measure than others (such as change in commercial production). However, the committee noted that even where consequences should be measurable, the 2004 draft IRA had made no particular effort to do so. The committee was disappointed to find that this situation has not altered appreciably in the Final IRA.

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30 The Independent Review of Australia's Quarantine and Biosecurity Arrangements Report to the Australian Government (The Beale Review), September 2008, p .97.

31 Queensland Department of Agriculture, Fisheries and Forestry, *Submission 7*, p. 4.

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*Economic consequences*

2.39 Analysis of economic consequences in the final IRA report appears variable. For example, the final IRA report notes that Moko is one of the most important economically damaging diseases of bananas and plantains worldwide.<sup>32</sup> The IRA notes that 'regular crop monitoring and surveillance activities associated with the control or eradication of Moko would result in significant costs to the Australian banana industry, considering the small size of Australian operations coupled with higher labour and consultancy costs.'<sup>33</sup> However, current and projected costs are not quantified. The report also notes that an incursion of Moko is likely to result in irreversible effects on the banana industry as eradication of the pathogen is impossible to achieve and goes on to discuss the prospect of higher costs and lower returns.<sup>34</sup> The committee considers that this discussion would have benefited from some quantitative data to indicate the magnitude of these impacts. The committee contrasts this with the discussion of the consequences of an outbreak of black Sigatoka which includes data on control and eradication costs and makes an attempt to illustrate the flow-on effect of a down turn in production to other industries.<sup>35</sup> However, the committee notes that the analysis for black Sigatoka may have benefited from reference to more recent data.

2.40 Similarly, the committee notes that the Final IRA states that an incursion of the Moko bacterium may result in the restriction of the sale and movement of banana fruit.<sup>36</sup> The IRA does not discuss how long such a restriction might apply or how localised such a restriction might be: an individual plantation, a local community or an entire region. The economic impact of such a restriction is not quantified.

2.41 The committee notes that it is not always clear why an economic impact has been measured at a particular level. For example, in its analysis of the consequences for domestic trade following an outbreak of Moko, the IRA concludes that the consequences would be 'significant' at the district level, yet there is nothing in the preceding discussion to indicate why any such consequences have been determined at the district level and not at a regional level.<sup>37</sup>

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32 Biosecurity Australia, Final Import Risk Analysis Report for the Importation of Cavendish Bananas from the Philippines, Part B, November 2008, p. 102.

33 Biosecurity Australia, Final Import Risk Analysis Report for the Importation of Cavendish Bananas from the Philippines, Part B, November 2008, p. 104.

34 Biosecurity Australia, Final Import Risk Analysis Report for the Importation of Cavendish Bananas from the Philippines, Part B, November 2008, p. 105.

35 Biosecurity Australia, Final Import Risk Analysis Report for the Importation of Cavendish Bananas from the Philippines, Part B, November 2008, pp. 148-149.

36 Biosecurity Australia, Final Import Risk Analysis Report for the Importation of Cavendish Bananas from the Philippines, Part B, November 2008, p. 104.

37 Biosecurity Australia, Final Import Risk Analysis Report for the Importation of Cavendish Bananas from the Philippines, Part B, November 2008, p. 105.

2.42 Similarly, in considering the indirect impact of an incursion of Moko on rural economic viability, the Final IRA notes that banana growing is concentrated in the Tully and Innisfail areas within the Cardwell and Johnstone shires. The IRA notes that 'an incursion of Moko is likely to result in irreversible effects on the banana industry' and that this would have a negative impact on agriculturally related employment. The IRA goes on to note that a down turn in banana production would have a substantial economic and social impact on the Johnstone and Cardwell shires where agricultural production constitutes the dominant industry.

2.43 The IRA uses the Tully Valley, which falls within the Cardwell Shire as an example of a 'district' in its explanation of the Impact descriptions.<sup>38</sup> However, the committee notes that the IRA concludes that the indirect consequences of an incursion of Moko to be 'highly significant' at the local level.<sup>39</sup> The committee concurs that the community impacts do indeed appear to be highly significant from the information provided, but finds it less than clear why these impacts are considered at the local level, rather than at the district level.

#### *Environmental consequences*

2.44 Submitters to the inquiry expressed concern that environmental issues appeared to have received limited attention in the report. Queensland Department of Primary Industries (DPI&F) expressed concern at the limited analysis undertaken of the environmental consequences of an incursion. For example, DPI&F notes that:

Should black Sigatoka become established in Queensland, the increase in fungicidal spray applications could double to 48 sprays/year. This has significant implications with the banana industry being in close proximity to the Great Barrier Reef.<sup>40</sup>

2.45 The committee notes that, in commenting on the environmental consequences of an incursion of black Sigatoka, the final IRA report states:

An effect of black Sigatoka would be to increase the use of fungicidal chemicals and associated spraying practise. These chemicals and spraying practices have been used in banana growing areas for many years and there are already concerns over any further increase in their use. It is considered that the effect would be 'significant' at the local level. The rating assigned to this criterion is therefore **C**.<sup>41</sup>

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38 Biosecurity Australia, Final Import Risk Analysis Report for the Importation of Cavendish Bananas from the Philippines, Part B, November 2008, p. 46.

39 Biosecurity Australia, Final Import Risk Analysis Report for the Importation of Cavendish Bananas from the Philippines, Part B, November 2008, p. 105.

40 Queensland Department of Agriculture, Fisheries and Forestry, *Submission 7*, p. 6.

41 Biosecurity Australia, Final Import Risk Analysis Report for the Importation of Cavendish Bananas from the Philippines, Part B, November 2008, p. 148.

2.46 The committee considers that given the reference to existing concerns about chemical usage, some consideration could have been given to the nature of these concerns and the likely impact of increased usage. The analysis would also have benefited from some discussion of the likely cost of control and eradication to be borne by government and industry.<sup>42</sup>

#### *Assessment of hitchhiker pests*

2.47 Both the DPI&F and Mackay Estates, expressed concern that inadequate consideration has been given to the potential environmental impact of hitchhiker pests in the IRA report.<sup>43</sup> DPI&F drew the committee's attention to the economic and environmental costs associated with the accidental importation of hitch-hiker pests:

... the ongoing eradication of red imported fire ants demonstrates the enormous costs associated with the accidental importation of a hitch-hiker pest not associated with the commodity being imported. The [DPI&F]department believes this to be a very real threat posed by the importation of bananas from the Philippines.<sup>44</sup>

2.48 Mackay Estates told the committee that their 'greatest concern with the banana IRA lies with the apparent lack of attention paid by BA to environmental issues that might be associated directly or indirectly with imported bananas from the Philippines'.

For some peculiar reason the issue of hitchhiker organisms has been 'brushed off' (Section 8.3) in the final IRA as being an AQIS responsibility yet in the earlier drafts had received some attention. As a stakeholder in the world Pineapple IRA and the Thailand mangosteen IRA, it is apparent that greater attention was given to non-pest/hitchhiker organisms such as ants, snails and weeds in those IRAs than in the banana IRA.<sup>45</sup>

2.49 In their submission, Mackay Estates told the committee that despite evidence regarding rat and frog species hitchhiking on bananas being presented to BA, none of this information has been referred to in the IRA.

2.50 In its exploration of this issue with BA, the committee heard that there is a standard procedure in place for the inspection of containers and products on arrival in Australia. AQIS told the committee:

At the moment we have 100% external inspection of containers, looking for contaminants and that includes hitchhiker organisms that may be associated with it.

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42 Biosecurity Australia, Final Import Risk Analysis Report for the Importation of Cavendish Bananas from the Philippines, Part B, November 2008, p. 102.

43 Queensland Department of Agriculture, Fisheries and Forestry, *Submission 7*, p 4.

44 Queensland Department of Agriculture, Fisheries and Forestry, *Submission 7*, covering letter dated 23 February 2009.

45 Mackay Estates and Scientific Advisory Services Pty Ltd, *Submission 9*, p. 3.

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The inspectors give a lot of priority to looking for those hitchhiker organisms. They normally do inspections of the port area as well, and occasionally things get found in the port area.<sup>46</sup>

2.51 AQIS went on to explain to the committee that the AQIS inspection regime for containers is risk based. In addition, all of the packing houses involved in the export of bananas to Australia are required to implement appropriate hygiene management and are inspected and audited by AQIS.<sup>47</sup>

#### *Involvement of DEWHA*

2.52 The committee notes from the Report of the ESG that, while the technical responses regarding potential impacts on the environment were sufficient, they could have been more comprehensive. The ESG notes:

While we understand that there have been discussions between BA and the Department of the Environment, Water, Heritage and the Arts (DEWHA), the ESG believes that there is still scope for DEWHA to have greater technical input to the IRA process.<sup>48</sup>

2.53 The committee agrees with Mackay Estates that the ESG feedback would have been more constructive had it identified those specific environmental issues that may have received insufficient attention.<sup>49</sup>

2.54 The committee was advised that DEWHA had been involved as a stakeholder throughout the IRA process and had received drafts of the IRA for comment. The committee was advised that DEWHA had advised BA that it had no comments to make on the final IRA.<sup>50</sup>

#### *Committee view*

2.55 The committee was disappointed to observe that the concerns noted in the committee's 2005 inquiry report appear to have gone unheeded. The committee remains concerned at the apparent lack of rigour in the assessment of the consequences of an incursion of each of the pests or diseases identified in the final IRA report. Members of this committee have a first hand understanding of the far reaching economic and environmental consequences of such incursions. In particular, the committee is mindful of the impact of the 2001 incursion of red fire ants, the 2004 citrus canker outbreak, and more recently the 2007 outbreak of equine influenza. Each

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46 In camera evidence.

47 In camera evidence.

48 Biosecurity Australia, *Submission 3*, Attachment 1, p. 2.

49 Mackay Estates and Scientific Advisory Services Pty Ltd, *Submission 9*, p. 3.

50 In camera evidence.

of these incursions has resulted in costly containment and eradication responses involving restrictions on movement between infected areas and widespread flow on effects.

2.56 The IRA report notes that Moko, black Sigatoka and freckle are economically damaging diseases that can be costly to contain and eradicate. The committee considers that in these circumstances the banana growing regions of Australia have a right to expect a more detailed and rigorous analysis of the consequences of an incursion.

2.57 The committee is also concerned that the consideration of economic consequences does not appear to have been performed consistently across each of the identified pests or across each of the banana growing regions within Australia. The committee accepts that relevant information for all districts may not be readily available and that the IRA team may not have had access to relevant expertise. However, the committee considers that it is incumbent on BA, through the IRA process, to seek to identify the impact on each region before determining the likely impact overall.

2.58 The committee is concerned to observe a similarly inconsistent and partial approach to the assessment of environmental consequences. The committee considers that the analysis of environmental consequences, particularly in relation to increased spraying regimes and hitchhiker pests should include some attempt to measure the impacts and identify associated costs.

2.59 The committee acknowledges that such rigorous analysis may be beyond the expertise at the disposal of the IRA team. However, the committee notes that the IRA team engaged external expertise to assist with other aspects of the IRA.<sup>51</sup> The committee considers that analysis of the consequences of an incursion is an area where outside expertise would have been beneficial.

2.60 The committee notes the observation of CSIRO in the context of the Beale Review that 'there is merit in DWHA and BA building their joint capacity for analysing the environmental risks of biosecurity threats'.<sup>52</sup> While the committee notes DEWHA was a stakeholder in this IRA process, the committee would like to see DEWHA more directly involved in the IRA process.

### ***Availability of data on prevalence of pests and diseases in the Philippines***

2.61 During the inquiry, the committee heard evidence that the IRA team was hampered in its analysis of risk and the efficacy of possible risk management measures by the lack of information concerning disease infection rates in Philippine

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51 Queensland Department of Agriculture, Fisheries and Forestry, *Submission 7*, p. 2.

52 Independent Review of Australia's Quarantine and Biosecurity Arrangements Report to the Australian Government (The Beale Review), September 2008, p. 103.

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plantations. The committee was told that Biosecurity Australia sought information from the Philippines in this regard, but that the Philippines did not respond.<sup>53</sup>

2.62 BA told the committee that while not all requests for information or inspections had been acceded to by the Philippine Government, the IRA team had received sufficient information to assist it in its analysis. BA stated that the Philippines did provide a lot of information throughout the course of the IRA process. Where the Philippines declined to provide information or could not provide information, the IRA team continued its work using alternative sources of information and on the basis of the worst case scenario.<sup>54</sup>

2.63 In answer to a question on notice, BA outlined for the committee the range of information and assistance provided by the Philippines government:

The Philippines government provided a significant amount of information during the IRA process as well as hosting a number of technical visits by members of the IRA team. The IRA team indicated that additional information would have helped the IRA, but the information already provided, and available in the public domain, permitted the IRA to be completed. Where there was a gap in the information, and it was not provided by the Philippines, the IRA team exercised very conservative judgements.<sup>55</sup>

2.64 BA referred the committee to page 76 of Part B of the final IRA report which states:

The report has utilised the data on the prevalence of Moko in plantations provided by the Philippines Department of Agriculture for the period 1998 to 2001. Biosecurity Australia recognises that the data set on disease prevalence is only for a short period and that it does not differentiate between plantations in the proposed export area and other geographic areas. Biosecurity Australia has continued to seek more technical information on this issue. However, several previous requests to Philippine authorities to provide more data have been unsuccessful.

In accordance with the guidelines provided in the ISMP 2, Framework for Pest Risk Analysis (2007), this report documents the uncertainties, for the purposes of transparency and the rating for Imp 2 has taken into account the uncertainties when conducting the risk assessment.

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53 In camera evidence.

54 In camera evidence.

55 Answers to Questions on Notice provided in camera.

The prevalence reported by BPI (2002a) has therefore been increased by a factor of two to three to estimate the total number of infected plants per hectare.<sup>56</sup>

2.65 BA also provided the committee with a summary of the involvement of the Philippines government throughout the risk analysis process. The committee notes that the last data received from the Philippines appears to be the provision of pest interception data for 2004 and 2005.<sup>57</sup>

*Committee view*

2.66 The committee considers that the availability of accurate, current data on the prevalence of pests and diseases in the exporting country is a fundamental requirement in the risk analysis process. The committee accepts that such data is not always available or forthcoming and notes that the IRA report clearly states where information is not available, has not been quantified or is based on the IRA team's own observations. The committee also notes the IRA team's view that as a signatory to the SPS agreement, it was obliged to continue with the IRA process. The committee also notes that while the IRA team would have preferred to have access to additional information and data, it considers that it received sufficient information to assist it in its analysis. However, the committee considers that the perception that the IRA process is based to some degree on partial information, estimates and assumptions, does little to foster confidence in the final IRA report's findings.

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56 Biosecurity Australia, *Final Import Risk Analysis Report for the Importation of Cavendish Bananas from the Philippines*, Part B, p. 76.

57 Answers to Questions on Notice provided in camera.