PRA template 1 (planned introduction of biological material and commodities)

**Pest Risk Analysis (PRA) for**

**Name of organism: *Scientific name* (English name)**

**Territory: e.g. Anguilla Assessment Number: 001/year**

**Date: dd/mm/yyyy Version: 1**

**PRA type: planned introduction**

**All sections should be completed. If not applicable indicate it**

**Part 1: Initiation**

* 1. **Purpose of planned introduction**

|  |  |
| --- | --- |
|  [ ]  | Ornamental plant |
|  [ ]  | Pet |
|  [ ]  | Crop; garden crop |
|  [ ]  | Fodder plant |
|  [ ]  | Livestock |
|  [ ]  | Living food for livestock or pets |
|  [ ]  | Commodity (fruit; vegetables, compost, etc.; please specify |
|  [ ]  | Species suitable for fishing (introduction fish/crayfish/fishing baits etc.) |
|  [ ]  | Species for aquaculture |
|  [ ]  | Compost  |
|  [ ]  | Bulk commodity |
|  [ ]  | Others (please explain) |

* 1. **Summary of assessment results (max. 500 words)**

Give a brief summary of the risks of introduction, establishment, spread, impact and overall risk. Fill this part in at the end of the PRA process, only after you have completed the rest of the PRA template below.

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* 1. **Source of material**

Indicate the country where your material originates from and the importing route towards the territory (e.g. transit)

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* 1. **Importer details**

Company/Institution/Department:

Name and Job Title:

Address:

Phone (office and/or mobile): Email:

* 1. **Assessor details**

Company/Institution/Department:

Name and Job Title:

Address:

Phone (office and/or mobile): Email:

**Part 2: Background**

**2.1 Aim of assessment**

This section is intended to put the new organism(s) in perspective of the wider activities having led to conducting this PRA (e.g. planned usage for the new species; all technical/scientific words must be explained)

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**2.2 Identity**

Identify the organism as fully as possible

**Scientific name (incl. taxonomic authority, date):**

**What is it? (max. 2 sentence description):**

**English name(s):**

**Family:**

**Synonyms:**

**Other taxonomic remarks:**

**2.3 Images of the species if available**

If available, please provide pictures of different stages and habitats

*Figure 1:*

*Figure 2:*

**2.4 Existence of PRAs for this species**

Please indicate if PRAs for this species already exist and which target areas and climatic conditions these cover (for suggestions of websites to check see guidance notes)

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**2.5 Has the species been introduced into the territory before**

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**2****.6 Biology/Ecology**

Please provide background information relevant to your application covering the bullet points in the box below whenever applicable; see also guidance notes

|  |
| --- |
| * Growth form and size:
* Habitat:
* Lifecycle (e.g. reproduction and dispersal):
* Hosts/prey:
* Host specificity:
* Associated pathogens, pests or parasites:
* Other:
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**2.7 What is the current distribution of the species**

**Consider:** native range, history of introduction and invasion outside native range

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**Part 3: Risk of unintended establishment and spread**

**3.1 Probability of establishment**

3.1.1 Does the territory provide suitable climatic and habitat conditions for the species to **survive** and **reproduce** under natural conditions, unassisted or without human interference (e.g. without cultivation)? **Consider:** climate similarity between the species global range and the PRA area, availability of the habitat conditions required by the species based on its behaviour elsewhere; identify/name specifically the climate/habitat it might survive? Which land-cover? Justify why and provide landmarks as examples); for definition of human interference see guidance notes 3.2.1

|  |
| --- |
| * Survival:
* Reproduction (self-sustaining population):
 |

3.1.2 How likely can the species survive and reproduce indoors or in similar habitats (e.g. polytunnels, gardens, urban area)? **Consider:** availability of the habitat conditions required by the species based on its behaviour elsewhere; identify/name specifically the conditions it might survive?

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| * Survival:
* Reproduction (self-sustaining population):
 |

**Summary probability of establishment**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Probability of establishment in the wild** | Very unlikely [ ]  | Unlikely [ ]  | Moderately likely [ ]  | Likely [ ]  | Very likely [ ]  |
| **Confidence** | High confidence [ ]  | Medium confidence [ ]  | Low confidence [ ]  |  |  |

**3.2 Probability of spread**

3.2.1 What is the potential spread in the territory? **Consider:** rate and distance of spread elsewhere; natural barriers in PRA area, the occurrence of a dispersal vector or commodity; see also guidance notes 3.3.1

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| --- |
| * Self-dispersal:
* Direct transport by humans:
* Transport via vehicles (e.g. boat, cars, including tyres):
* Wind drift or via driftwood:
* Water:
* Transport via animals (e.g. berries digested by birds, seeds stuck to wool, etc.):
* Transport with vectors:
* Other:
 |

3.2.2 Can the species spread to parts of the territory where an introduction is not planned or desired? (Use the same categories as in 3.2.1)

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| --- |
| * Self-dispersal:
* Direct transport by humans:
* Transport via vehicles (e.g. boat, cars, including tyres):
* Wind drift or via driftwood:
* Water:
* Transport via animals (e.g. berries digested by birds, seeds stuck to wool, etc.):
* Transport with vectors:
* Other:
* How rapidly would the organism spread by natural means?:
 |

**Summary probability of spread**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **How quickly can the species spread (excluding deliberately assisted by humans)** | Less than 10 m/year. Can’t occupy suitable habitats within next 100 yearsVery slowly [ ]  | Between 10 and 100 m per year. Suitable habitats are likely to be occupied between 50 and 100 yearsSlowly [ ]  | Between 100 and 500 m per year. Suitable habitats are likely to be occupied between 50 and 100 yearsModerate pace [ ]  | > 500 m per year Can occupy suitable habits throughout the territory within 5 to 20 yearsQuickly [ ]  | Can occupy suitable habits throughout the territory within 5 yearsVery quickly [ ]  |
| **Confidence** | High confidence [ ]  | Medium confidence [ ]  | Low confidence [ ]  |  |  |

**Part 4: Economic and environmental risks of target species/product**

It is important to look at the potential magnitude of the consequences, and to look at distribution effects (i.e. who bears the risks). **Consider only the adverse or negative effects** in this section of the application. Consider potential maximum impact. Positive effects are considered in part 6 (benefits).

Please, **complete this section referencing supporting material**. Please, cite the material in the text and provide a description of where the information in the application has been sourced in the list of references (e.g. from in-house research, independent research, technical literature, community or other consultation, and provide that information with this application). If the information available is scarce, include information about related species (e.g. same genus or family) clearly indicating that it does not correspond to the organism being assessed.

Consider the accidental introduction of multiple unknown species potentially associated with the target import (e.g. in compost or associated with ornamental plants) in part 5.

**4.1 Risks recorded from outside the territory, which are applicable to the territory**

4.1.1 Is the species listed in the following Plant Protection organizations and Invasive lists and if so, what is its status?

|  |
| --- |
| **America**[COSAVE](https://www.ippc.int/en/partners/regional-plant-protection-organizations/cosave/): yes/no[NAPPO](http://www.pestalert.org/main.cfm): yes/no[OIRSA](http://ns1.oirsa.org.sv): yes/no**Europe**[EPPO](http://www.eppo.int): yes/noEC Plant Health Directive (Council Directive 2000/29/EC): yes/no**Africa**[ARC](http://www.arc.agric.za/arc-ppri/weeds/Pages/Management-of-invasive-alien-plants-.aspx): yes/no**Others:** [CABI CPC](https://www.cabi.org/cpc/) [CABI ISC](https://www.cabi.org/isc/) [GISD](http://www.iucngisd.org/gisd/) **Other organizations relevant for the territory (e.g. regional, national…)** |

4.1.2 Is there any negative impact of the species on the economy, environment or public health recorded from any parts of its current distribution? Please provide a summary of the available information.

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**4.2 Economic and socioeconomic effects**

4.2.1 Could the species have any negative effect on economic activities in the territory? Please include any information about specific assessments from areas outside the PRA area, including experiences with closely related species with relevance for the area of interest (**consider:** reduction in crop yield or quality; reduction in prices or demand, including export markets; increase in production costs (including costs of control); vectoring of other pests of economic importance; extent of phytosanitary regulations imposed by importing countries).

|  |
| --- |
| * Agriculture:
* Livestock:
* Fisheries:
* Aquaculture:
* Forestry:
* Tourism:
* Recreational potential:
* Infrastructure:
* Employment rates:
* Other:
 |

4.2.2 Are there any risks of impacts on cultural valuable species, habitats, landscapes, practices or other values? Please include any information about specific assessments from areas outside the PRA area including experiences with closely related species with relevance for the area of interest

|  |
| --- |
| * Competition with or impact on cultural valuable species:
* Impact on historically valuable practices:
* Change of landscape:
* Value of landscape for recreation:
* Other:
 |

**Summary economic and socioeconomic impacts**

Make sure the summary score is well linked with the information reported above so the scoring is fully justified (for more information risk levels see guidance notes)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Risk of socioeconomic impact**  | Very small [ ]  | Small [ ]  | Medium [ ]  | Large [ ]  | Very large [ ]  |
| **Confidence** | High confidence [ ]  | Medium confidence [ ]  | Low confidence [ ]  |  |  |

**4.3 Impact on public health**

4.3.1 Could there be any impact on public health? **Consider:** Can the species be disease-causing or be a parasite, or be a vector or reservoir for human diseases?

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**Summary public health impact**

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| --- | --- | --- | --- | --- | --- |
| **Risk of impact on public health** | Very small [ ]  | Small [ ]  | Medium [ ]  | Large [ ]  | Very large [ ]  |
| **Confidence** | High confidence [ ]  | Medium confidence [ ]  | Low confidence [ ]  |  |  |

**4.4 Impact on animal health**

Could there be any impact on animal health? **Consider:** Can the species be disease-causing or be a parasite, or be a vector or reservoir for animals?

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**Summary animal health impact**

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| --- | --- | --- | --- | --- | --- |
| **Risk of impact on animal health** | Very small [ ]  | Small [ ]  | Medium [ ]  | Large [ ]  | Very large [ ]  |
| **Confidence** | High confidence [ ]  | Medium confidence [ ]  | Low confidence [ ]  |  |  |

**4.5. Environmental and ecosystem effects**

4.5.1 Are there any threats to native or endemic species? Indicate direct effects on native species; note any aspects related to pollination of native species should be covered in the following question (**consider**: threat to endangered species; impact on keystone species; changed community structure; hybridization with native species)

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4.5.2 What is the level of potential negative impact on ecosystem services in the PRA area? (**consider**: provisioning services (freshwater, wood and fibre, fuel); regulating services (soil formation, natural hazards, water and air quality); cultural services (aesthetic, educational, recreational, spiritual); supporting services (nutrient cycling, habitat stability; pollination) see also guidance notes 4.5.2

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**Summary environmental impact**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Risk of environmental impact**  | Very small [ ]  | Small [ ]  | Medium [ ]  | Large [ ]  | Very large [ ]  |
| **Confidence** | High confidence [ ]  | Medium confidence [ ]  | Low confidence [ ]  |  |  |

**Part 5: Pest risk management (risks to accidentally introduce species associated with the target import and their prevention and control)**

**5.1 Contingency plan**

5.1.1 What mitigation measures can be put in place in case the imported species becomes invasive and start to impact negatively on the economy and/or environment?

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**5.2 Associated species (risk management concerning species associated with the target import)**

5.2.1 What species have reported to be associated with the target import?

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5.2.2 Which measures **already** in place are suitable to minimise the risk of introduction and establishment? **Consider**: inspection of commodities; trapping, disrupting specific pathways, etc. (please check with existing biosecurity measures)

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| * **Pre-border:**
* **At the border:**
* **Post-border:**
* **Other:** (provide additional information)
 |

5.2.3 Which measures **not yet** in place are suitable to minimise the risk of introduction and establishment **Consider**: inspection of commodities; trapping, disrupting specific pathways, etc.

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| * **Pre-border:**
* **At the border:**
* **Post-border:**
* **Other:** (provide additional information)
 |

5.2.4 Are there any species listed or described in 5.2.1 which are not covered by existing prevention measures, the pathway action plan or feasible new measures as listed in 5.2.3? see also guidance notes

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**Summary efficacy of current prevention measures from 5.2.2**

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| --- | --- | --- | --- | --- | --- |
| **Probability of prevention measures being effective** | Very unlikely [ ]  | Unlikely [ ]  | Moderately likely [ ]  | Likely [ ]  | Very likely [ ]  |
| **Confidence** | High confidence [ ]  | Medium confidence [ ]  | Low confidence [ ]  |  |  |

**Summary efficacy of proposed prevention measures from 5.2.3**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Probability of suitable future prevention measures being effective** | Very unlikely [ ]  | Unlikely [ ]  | Moderately likely [ ]  | Likely [ ]  | Very likely [ ]  |
| **Confidence** | High confidence [ ]  | Medium confidence [ ]  | Low confidence [ ]  |  |  |

**Part 6: Costs and benefits**

Provide information of the benefits (positive effects) and costs of the planned introduction. It is important to look at distribution effects (who/what bears the risk), likelihood of occurrence (probability) and the potential magnitude. Please, complete this section referencing supporting material. Please provide a description of where the information in the application has been sourced from (e.g. from in-house research, independent research, technical literature, community or other consultation, and provide that information with this application). This section should cover the costs and benefits anticipated by the introduction of the organism(s) but not any costs associated with direct or indirect risks (negative effects), which have been assessed in part 4.

6.1.1 What are the benefits of introducing the species/commodity? **Consider:** Income generated from introduced organism(s); yield loss prevented; etc.; consider not only economic benefits but also benefits for the environment and society

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**Summary benefits**

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| --- | --- | --- | --- | --- | --- |
| **Commercial trade benefits** | Very small [ ]  | Small [ ]  | Medium [ ]  | Large [ ]  | Very large [ ]  |
| **Confidence** | High confidence [ ]  | Medium confidence [ ]  | Low confidence [ ]  |  |  |
| **Benefits for agriculture and livestock**  | Very small [ ]  | Small [ ]  | Medium [ ]  | Large [ ]  | Very large [ ]  |
| **Confidence** | High confidence [ ]  | Medium confidence [ ]  | Low confidence [ ]  |  |  |
| **Benefits for public health**  | Very small [x]  | Small [ ]  | Medium [ ]  | Large [ ]  | Very large [ ]  |
| **Confidence** | High confidence [ ]  | Medium confidence [ ]  | Low confidence [ ]  |  |  |
| **Benefits for ecosystem services** | Very small [ ]  | Small [ ]  | Medium [ ]  | Large [ ]  | Very large [ ]  |
| **Confidence** | High confidence [ ]  | Medium confidence [ ]  | Low confidence [ ]  |  |  |
| **Benefits for the protection of native/endemic species**  | Very small [ ]  | Small [ ]  | Medium [ ]  | Large [ ]  | Very large [ ]  |
| **Confidence** | High confidence [ ]  | Medium confidence [ ]  | Low confidence [ ]  |  |  |
| **Benefits for pollination, bee keeping** | Very small [ ]  | Small [ ]  | Medium [ ]  | Large [ ]  | Very large [ ]  |
| **Confidence** | High confidence [ ]  | Medium confidence [ ]  | Low confidence [ ]  |  |  |
| **Other** | Very small [ ]  | Small [ ]  | Medium [ ]  | Large [ ]  | Very large [ ]  |
| **Confidence** | High confidence [ ]  | Medium confidence [ ]  | Low confidence [ ]  |  |  |

6.1.2 What are the costs for introducing the species/commodity? **Consider:** costs for release and/or monitoring programme, etc.

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**Table 4. Cost-benefit analysis** This part is only optional; a detailed C & B analysis is beyond the scope of this PRA but any information available, which can be included in the table below may help to address potential conflicts of interest and facilitate the final decision on the overall outcome.

This table should summarize the costs and benefits anticipated during and after the introduction of the organism(s) but not any costs associated with direct or indirect risks (negative effects). For each cost or benefit add a new row estimating approximately its monetary value within an uncertainty range (error) and where and when it will occur. Please bear in mind that often some of the benefits as well as negative impacts cannot be translated into monetary values, but can be of equal importance for decision making.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Name of benefit/cost**  | **Best estimate**  | **Uncertainty range**  | **Spatial distribution**  | **Temporal distribution**  |
| **Direct monetary benefits**  |  |  |  |  |  |
| **Direct monetary costs**  |  |  |  |  |  |
| **Indirect costs**  |  |  |  |  |  |

**Other information**

Add here any further information you wish to include in this application including if there are any ethical considerations that you are aware of in relation to your application

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**Is the import of the target species/commodity approved?**

(for further explanation see note-box below)

No [ ]  (final rejection) No [ ]  (result may change after a more detailed PRA) Yes [ ]

**Reasons why a full PRA can lead to a reconsideration of the outcome given above**

Please consider additional information, which a more detailed PRA may be able to provide

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**References and information sources consulted**

Occurrences from Gbif.org

www.Palmpedia.net

Florida University

**Appendices and referenced material (if any) and glossary (if required)**

In case this is an application made for the deliberate introduction of a species/commodity it is recommended that you contact a member of the Biosecurity team as early in the application process as possible. Biosecurity can assist you with any questions you have during the preparation of your application including providing advice on any consultation requirements.

Unless otherwise indicated, all sections of this form must be completed for the application to be formally received and assessed. If a section is not relevant to your application, please provide a comprehensive explanation why this does not apply.

Commercially sensitive information must be included in an appendix to this form and be identified as confidential. If you consider any information to be commercially sensitive, please indicate this in the relevant section of this form and cross reference to where that information is located in the confidential appendix.

Any information you supply to Biosecurity prior to formal submission of your application will not be publicly released. Following formal submission of your application, any information in the body of this application form and any non-confidential appendices will become publicly available.