

Improving biosecurity in the SAUKOTs through Pest Risk Analysis

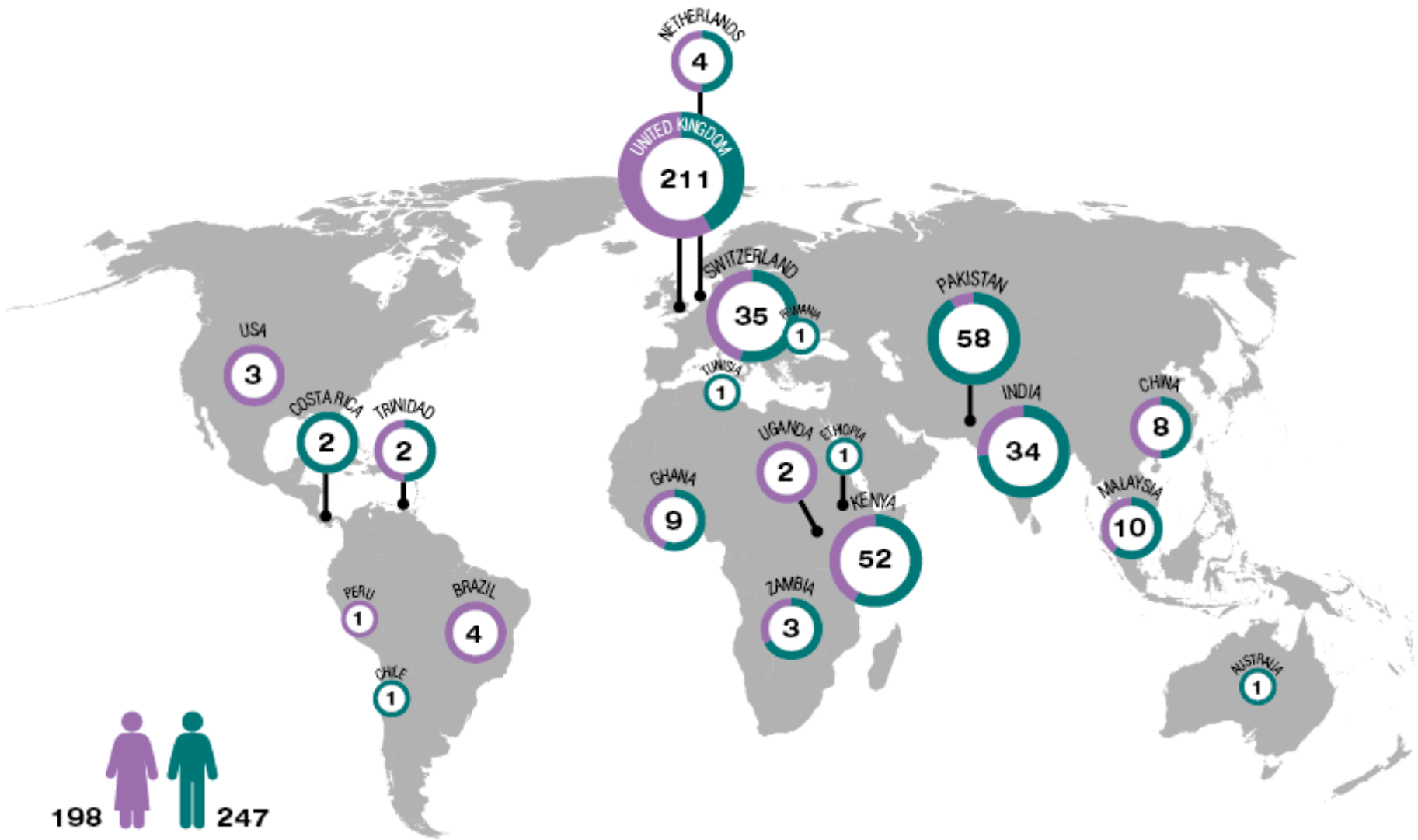
Darwin plus 074

Norbert Maczey & Pablo Gonzalez-Moreno

Addressing drivers of ecological change in Lake Akrotiri:
Assessing and mitigating impacts of invasive non-native species
Akrotiri Environmental Education Centre, Akrotiri



Global reach We have 480+ staff across 21 locations worldwide





Afghanistan



Anguilla



Australia



Bahamas



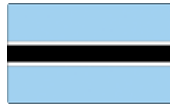
Bangladesh



Barbados



Bermuda



Botswana



British Virgin Islands



Brunei Darussalam



Burundi



Canada



Chile



China



Colombia



Cote d'Ivoire



Cyprus



DPR Korea



Gambia



Ghana



Grenada



Guyana



India



Jamaica



Kenya



Malawi



Malaysia



Mauritius



Montserrat



Myanmar



Nigeria



Pakistan



Papua New Guinea



Philippines



Rwanda



Sierra Leone



Solomon Islands



South Africa



Sri Lanka



St Helena*



Switzerland



Tanzania



The Netherlands



Trinidad & Tobago



Uganda



United Kingdom



Vietnam



Zambia



Zimbabwe

our member countries





Developing PRA for UKOTs

- The JNCC led South Atlantic Overseas Territories Regional Biosecurity Workshop held in August 2015 identified the lack of capacity to carry out PRAs for all SA UKOTs.
- A gap analysis assessing biosecurity and control of invasive species on the UKOTs conducted by the Non-native Species Secretariat for Great Britain (NNSS) highlighted significant gaps in biosecurity capacity, particularly with regards to prevention within the majority of the UKOTs.
- Darwin plus 033: Enhancing biosecurity and biological control capacity in the Falkland Islands





Darwin plus 074: Improving biosecurity in the SAUKOTs through Pest Risk Analysis

- Review and improve PRA procedures tailored to the needs of individual territories in the SA using St Helena and FI as case studies
- Update and/or develop new PRA templates/ integration in existing procedures
- Building capacity to use updated PRA procedures and templates
- Make use of a new horizon scanning and PRA tool currently under development by CABI





Greatest challenge: Limited resources

- Small workforce (challenge/inhabitant)
- Not much time available to do PRAs
- Limited cover of taxonomic groups
- High fluctuation of staff/limited transfer of training to follow on staff possible
- Limited access to library and online resources



Improving capacity by:

A: Increase resources

- Lobby for more staff/time/equipment/infrastructure

B: Minimise biosecurity risks as much as possible under any given capacity





How to best address shortcomings/challenges

- Develop easy to use PRA templates, which can be confidently conducted by existing staff (rapid; self-explanatory; to be upscaled if necessary)
- Embed PRAs into a workflow/procedure including the factors which trigger/initiate a PRA
- Provide easy to use guidance to procedures and PRAs
- Provide links to knowledge resources (e.g. EPPO PRA platform)
- Test the use of additional tools, which make the process easier such as the CABI HST
- **Increasing confidence to do PRAs (training/feedback)**





Knowledge sources

- Online data bases on invasive species
 - Pest alerts
 - Priority lists from Expert HS
 - Existing PRA platforms
-
- Links to the above integrated in various steps of overall procedures
 - Link already existing skill sets of individual Ots (improve communication network)



Overview existing PRA templates

- EPPO [..\Project files 2019\PRA templates\NAPRA EU word template v1.1.doc](#)
- GBNNSS rapid [..\Project files 2019\PRA templates\NNSS RA Crangonyx pseudogracilis \(Northern River Amphipod\).pdf](#)
- GBNNSS detailed [..\Project files 2019\PRA templates\NNRA word template v2.0.doc](#)
- FERA rapid [..\Project files 2019\PRA templates\japanusHyalinus.pdf](#)
- FERA detailed [..\Project files 2019\PRA templates\Tuta absoluta PRA.pdf](#)
- CABI online PRA tool <https://www.cabi.org/PRA-Tool>
- Falkland Darwin plus PRA for BC agents [..\Project files 2019\PRA templates\Annex 5 - PRA for Triarthria setipennis 07-11 2016.docx](#)

- And now another one!! [..\Project files 2019\PRA templates\PRA template St Helena 25-02 2019.docx](#)

- Aspect of compatibility between PRAs and depository!!!





Project templates

- One size doesn't fit all (split master template)
- 4 separate templates
- rapid; self-explanatory; to be upscaled if necessary
- Suggestions to useful links integrated in template



- PRA-template-1-(planned-introduction-of-biological-material-and-commodities)-¶
- Pest-Risk-Analysis-(PRA)-for-¶
- Name-of-organism:-*Rhapis-humilis*-(slender-lady-palm)¶
- Territory:-*St-Helena*,→Assessment-Number:-001/2019¶
- Date:-01/07/2019-----Version:-1¶
- PRA-type:-planned-introduction¶
- All-sections-should-be-completed.-If-not-applicable-indicate-it¶

▪ Part-1:-Initiation¶

1.1 → Purpose-of-planned-introduction¶

<input checked="" type="checkbox"/>	Ornamental-plant¶	¶
<input type="checkbox"/>	Pets¶	¶
<input type="checkbox"/>	Crop; garden-crop¶	¶
<input type="checkbox"/>	Fodder-plant¶	¶
<input type="checkbox"/>	Livestock¶	¶
<input type="checkbox"/>	Living-food-for-livestock-or-pets¶	¶
<input type="checkbox"/>	Commodity-(fruit;vegetables;compost,etc.;please-specify)¶	¶
<input type="checkbox"/>	Species-suitable-for-fishing-(introduction-fish/crayfish/fishing-baits-etc.)¶	¶
<input type="checkbox"/>	Species-for-aquaculture¶	¶
<input type="checkbox"/>	Compost-¶	¶
<input type="checkbox"/>	Bulk-commodity¶	¶
<input type="checkbox"/>	Others-(please-explain)¶	¶

¶

- PRA-template-2-(planned-introduction-of-biological-control-agents)¶
- Pest-Risk-Analysis-(PRA)-for-¶
- Name-of-organism:-*Megastigmus-transvaalensis*-(Brazilian-Peppertree-Seed-Chalcid)¶
- Territory:-*St-Helena*,→Assessment-Number:-004/2019¶
- Date:-15/09/2019-----Version:-1¶
- PRA-type:-introduction-of-biological-control-agent¶
- All-sections-should-be-completed.-If-not-applicable-indicate-it¶

▪ Part-1:-Initiation¶

1.1 → Purpose-of-planned-introduction¶

<input type="checkbox"/>	Biological-control-of-plant-pest-in-greenhouse-environment¶	¶
<input type="checkbox"/>	Biological-control-of-plant-pest-outside;commercial-¶	¶
<input type="checkbox"/>	Biological-control-of-plant-pest-outside;ornamental¶	¶
<input type="checkbox"/>	Biological-control-of-plant-pest-outside;environmental¶	¶
<input type="checkbox"/>	Control-agent-for-invasive-alien-arthropod-¶	¶
<input checked="" type="checkbox"/>	Control-agent-for-invasive-alien-plant/weed¶	¶
<input type="checkbox"/>	Others-(please-explain)¶	¶

¶

- PRA-template-3-(accidental-introduction-of-potentially-invasive-species)-¶
- Pest-Risk-Analysis-(PRA)-for-¶
- Name-of-organism:-*Tuta-absoluta*-(tomato-leafminer)¶
- Territory:-e.g.-*St-Helena*, → Assessment-Number:-001/year¶
- Date:-01/06/2019-----Version:-1¶
- PRA-type:-accidental-introduction¶
- All-sections-should-be-completed.-If-not-applicable-indicate-it¶

▪ Part-1:-Initiation¶

1.1 → 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-only-in-after-you-have-completed-all-the-PRA-template.¶

→ ¶

¶

1.2 → Assessor-details-¶

Institution/Department:-¶

Name-and-Job-Title:-¶

Address:-¶

Phone-(office-and/or-mobile):-→ → → → → Email:-¶

¶

- PRA-template-4-(species-already-present-in-the-territory)¶
- Pest-Risk-Analysis-(PRA)-for-¶
- Name-of-organism:-*Latin-name*-(English-name)¶
- Territory:-e.g.-*St-Helena*, → Assessment-Number:-001/year¶
- Date:-dd/mm/yyyy-----Version:-1¶
- PRA-type:-alien-species-already-present-¶
- All-sections-should-be-completed.-If-not-applicable-indicate-it¶

▪ Part-1:-Initiation¶

1.1 → Summary-of-assessment-results-(max.-500-words)¶

Give-a-brief-summary-of-the-introduction,-establishment,-spread,-impact-and-overall-risk.-Fill-this-part-only-in-after-you-have-completed-all-the-PRA-template.¶

→ ¶

¶

1.2 → Assessor-details-¶

Institution/Department:-¶

Name-and-Job-Title:-¶

Address:-¶

Phone-(office-and/or-mobile):-→ → → → → Email:-¶

¶

Screening for introduction of biological material to the territory

Species name: _____

If a plant, which is the part being imported? _____

If an animal, what stage or part is being imported (dead, development stage, etc.)? _____

• Is the taxonomy well known (do we exactly know what species we are dealing with)?

If yes, go to step 2, if no reject application

1

• Is the import of the species permitted by current regulation (e.g. listed on a white list)?

If yes, accept application

• Is the import of the species prohibited by current regulation (e.g. listed on a black list)?

If yes, reject application

• Is the import of the species neither permitted nor prohibited by current regulation?

If yes, go to step 3

2

• Has it been rejected previously for import and circumstances have not changed?

If yes, reject application, if no go to step 4

3

• has it been considered invasive or harmful elsewhere?

If yes, request a stage 3 rapid PRA, if no go to step 5

4

• Will it arrive from in an area with similar climatic conditions to St Helena?

If yes or unsure, request a stage 3 rapid PRA, if no go to step 6

5

• Might the species carry any pests or pathogens not known in the territory?

If yes, request a stage 3 rapid PRA, if no go to step 7

6

• Will it be completely safe to the biodiversity, economic, animal and human health of the territory?

If yes, accept application, if no or not sure go to step 8

7

• Is there any mitigation action that could be applied to reduce the risk feasible?

If yes, request stage 3 rapid PRA, if no reject application

8

Source of information: _____

Decision: reject / PRA / accept

Justification: *open-text*

✎

✎



Procedures

- Embed PRAs into biosecurity procedures
- Updated procedure documents
- Workflow (factors which trigger/initiate a PRA for different types of PRAs)
- Allow for new online tools to be integrated into process



Flow chart PRA process

Stage 1 PRA initiation What triggers a PRA?	import request using form X	Import request for BC agent using form x	Species with high risk of accidental introduction flagged up by: online pest alerts; interceptions; routine horizon scanning; new pathways; using CABI HST every 2 years	Control of established invasive species
Who receives /deals with trigger?	Biosecurity	Biosecurity	Biosecurity	Conservation
Stage 2 Screening	yes	not required	Required, when more species qualify for a PRA than capacity is available	not required
Who conducts screening?	Biosecurity using screening form		Biosecurity using prioritisation tool	
Stage 3 rapid PRA	yes, if screening indicates import may be acceptable	yes	yes	yes
Who conducts rapid PRA?	Importer/consultant review by biosecurity using template 1 or CABI online PRA tool	Conservation/importer review by biosecurity using template 2	Biosecurity using template 3	Conservation using template 4
Stage 4 full PRA	yes, if requested by biose- curity at end of stage 2	yes, if requested by biose- curity at end of stage 2	only in exceptional cases required	not required
Who conducts full PRA?	Consultant review by biosecurity	Consultant review by biosecurity	FERA/CABI/GBNNS	
Stage 5 Depository	Central depository of screening documents. rapid and full PRAs, digital and online			
Who does depository?	Biosecurity			



Online tools

- Horizon Scanning Tool
- Pest Risk Analysis Tool



Horizon Scanning Tool

Prioritizing invasive species threats

The Horizon Scanning Tool is a decision support aid that helps you identify and categorize species that might enter a particular country from another country.

The tool uses CABI data to generate a list of species that are absent from your selected 'area at risk' but present in 'source countries' i.e. countries with similar climates to your 'area at risk', neighbouring or selected trading countries, or countries where there are major transport links.

As a Crop Protection Compendium subscriber you are about to access the full premium version of this specialized tool. You will be able to generate lists of species, refine your results by pathways, taxonomic groups, habitats, hosts and plant parts in trade and access linked species datasheets in the Invasive Species Compendium (ISC) and Crop Protection Compendium (CPC).

Begin scan

• Refine by:

- habitats
- pathways
- plant hosts *(for CPC subscribers only)*
- plant parts in trade *(for CPC subscribers only)*
- taxonomic group



• Analyse your results:

- Output to CSV
- Link to Compendia datasheets in the ISC and CPC *(CPC datasheets for CPC subscribers only)*



Using the Horizon Scanning Tool



- Select your 'area at risk' or area of interest which doesn't currently have a pest/invasive species present



- Select potential 'source countries' where species are present and act as points of entry to your 'area at risk'



- Scan for results



- View species results



Tell us what you think

email HST@cabi.org





Pest Risk Analysis Tool (beta)



Home

Welcome back n.maczey@cabi.org

PRA Home

Previous PRAs

My CABI

Start a new PRA session

By Pathway



Session number	PRA type	PRA title	PRA start date	PRA due date	Status	Completed date	PRA report	Delete session
P00300	Pathway	Palm trees			In Progress		Report	x Delete

Work Packages

Work Packages / Outputs	Planned Completion Date
1) Identifying specific needs of individual Overseas Territories	December 2018
2) Test and implement a horizon scanning tool for invasive species	June 2019
3) Develop draft tailored PRA templates	September 2019
4) Create a biosecurity network for all SAUKOTs to share knowledge about species of concern, alerts, etc.	March 2020
5) Training to allow biosecurity staff to independently conduct PRAs after the project	March 2020





Next steps

- Finalise templates at upcoming workshop in December 2019
- Approval of updated procedures and training of use for St Helena
- Make procedures compatible for FI
- Finalise updated communication links between SAUKOTS and implement more thoroughly



