



**Project: Preventing the Costs of
Invasive Alien Species (IAS)
in Barbados and the OECS**

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Declare, Deposit or Pay Campaign

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Project Activity: 1.4 Awareness and capacity building programs developed & implemented (internalizing IAS threats, impacts, and new controls and regulations)

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CONTENTS

Invasive Alien Species in the Caribbean.....	3
The Declare, Deposit or Pay Campaign.....	4
Goal	5
Objective.....	5
Assumptions	5
Expected outputs	5
Key messages.....	6
Key Considerations.....	6
The Target Audience	6
Legal authority	7
Campaign elements.....	7
Planning and endorsements	7
Funding	7
Human Resources and Key Partners	7
Terminal Displays	8
Communication Material	9
Monitoring and Evaluation.....	10
The Campaign in Other Caribbean Countries.....	10
Resources needed	10
Some suggestions for additional communication outputs	10
The Pilot Campaign in Participating Countries.....	11
The Components.....	11
Handling Biosecurity Risk Items.....	11
Declared Items	11
Items Deposited in Biosecure Bins.....	12
Action Plan.....	13
References	14

Invasive Alien Species in the Caribbean

Invasive Alien Species (IAS) are organisms whose introduction and spread impacts human health and well-being, disrupts agriculture and trade, and threatens biological diversity in the marine, fresh water and terrestrial ecosystem. IAS are a major cause of global biodiversity loss and are the primary cause of recent extinctions in many taxonomic groups, especially on islands. Their disastrous environmental and socio-economic impacts is exacerbated by globalization and the concurrent increase in trade, transport, and tourism.

The economic and social impacts of IAS include the direct effects of a species as well as costs associated with control efforts. A 2021 study estimated that invasive species have cost North America \$2 billion per year in the early 1960s to over \$26 billion per year since 2010. Globally, it is estimated that the economic cost of invasive species has been \$1.288 trillion over the past 50 years.

The number of new introductions of species to areas outside their natural range is growing at an unprecedented rate, among all taxonomic groups and in all biomes, with no sign of a saturation effect. It is worrying that a high proportion of recent introductions are of species that have never been recorded as alien before, meaning that the number of IAS is forecast to increase in the future among all taxonomic groups. In addition, due to climate change, many regions will become more suitable for a greater number of IAS, and an increase in extreme weather events will likely facilitate their spread. As a result, the impacts of IAS are expected to continue to increase.

If the natural environment is to be safeguarded and the income-generating sectors of agriculture, forestry and fisheries sectors protected, then the management of IAS must become a priority. The most common pathways by which they are introduced and spread are via trade, travel, transportation and tourism. The management of these 'pathways' of introduction is critical and the most cost-effective way to do this is through prevention. This requires a proactive approach, with high levels of surveillance at ports of entry. Also, under the current legislation only customs personnel have the authority to search passengers' luggage. Unfortunately, the human resources dedicated to surveillance activities for IAS in the Caribbean are limited to a few plant quarantine officers, public health and veterinary officers. The travelling public therefore has to become self-monitoring and assume responsibility for ensuring that they do not introduce IAS into countries.

This campaign it is expected to encourage passengers to leave at home items that pose an IAS threat and to declare any such items that they do carry. They would do this on boarding a plane or ship as well as on disembarking. The campaign would build on the expected success of the initiative, so that passengers become accustomed to self-declaring items that poses any risk to biodiversity, agriculture, and human health.

The practice of casually transporting animal and plant material remains too common. Raising awareness and educating the general public is therefore a priority in order to change human behaviour and minimise the impacts of IAS.

The 'Preventing the Costs of Invasive Alien Species in Barbados and the OECS' Project (IAS Project) is implementing a public awareness campaign to sensitise and educate the public on the dangers of IAS. The campaign supports efforts to safeguard national and Caribbean biodiversity and protect people and their livelihoods from IAS.

The IAS Project is funded by the Global Environment Facility (GEF), implemented by the United Nations Environment Programme (UNEP) and executed by the Centre for Agriculture and Biosciences International (CABI) with support from the participating countries of Antigua and Barbuda, Barbados, Dominica, Grenada, St Kitts and Nevis, St Lucia, and St Vincent and The Grenadines.

The Declare, Deposit or Pay Campaign

A six-month campaign, *Declare, Deposit or Pay*, will be implemented at air and sea ports to create an awareness of the consequences of transporting IAS, either deliberately or unintentionally, via animals, animal products, fruit, vegetables and plant material, as well as soil and debris transported on shoes, clothing, bags and luggage. This public awareness is important in gaining the support of travellers and encouraging good practices by improving their understanding and acceptance of preventative and control measures.

A '*Declare or Dispose*' campaign in New Zealand has been very successful and has led to a clear reduction in potential biosecurity risk items seized at the border. Research also indicated a significant change in passenger behaviour, with many leaving items behind pre-travel and declaring items on arrival. The campaign contributes to the wider biosecurity system, which aims to protect New Zealand's horticultural and agricultural industries as well as native flora and fauna from pests and disease. This has economic significance as the horticulture industry alone is worth NZD\$5.6bn and the tourism industry, for which the natural beauty of the country is a key attraction, is valued at NZD\$12.9bn.

The Caribbean campaign aims to encourage a similar behaviour change leading to persons choosing not to transport anything that can harbour IAS, declare any item of concern and disposing of suspicious items in a special bin provided for that purpose.

The project proposes to conduct this campaign in at least three of the seven participating countries, which are Antigua and Barbuda, Barbados, Dominica, Grenada, St Kitts and Nevis, St

Lucia, and St Vincent and The Grenadines, using the guidelines and communication outputs in this campaign document. The other countries of the OECS are expected to subsequently launch the campaign building on the lessons learnt from the initial pilot, using the communication outputs as they are or modified to better suit their particular circumstances. Efforts will be made to ensure it is a harmonized campaign across the entire OECS and possibly the wider Caribbean.

Goal

To safeguard our national and Caribbean biodiversity and protect people and their livelihoods from Invasive Alien Species.

Objective

To change the behaviour of passengers arriving into Barbados and the OECS by air and sea so that they leave at home any item that poses a biosecurity risk, declare such items on arrival or dispose of them in designated biosecure bins.

Assumptions

- Stakeholders and decision-makers support the campaign, and the project will seek to get written commitment before the start of the project.
- The human resources required to carry out activities at the ports of entry will be assigned by the national authorities, and the project supports a part-time position to assist in analysing the content of the biosecure bins and safe disposal of same.
- Government Information services are willing to highlight the campaign initiatives.
- Financial and human resources are provided at the national level for the continuation of activities after the campaign has ended.
- The lessons learned by the countries involved in the campaign will be shared with non-participating countries.
- Stakeholder groups, particularly those at air and sea ports, and the media are supportive of the initiative.

Expected outputs

1. The launch of a pilot project that demonstrates that an effective social marketing campaign can change the behaviour of international passengers, so they are less inclined to smuggle items that pose a biosecurity risk, choosing instead to self-dispose or declare such items.

2. To assess the risk of international passenger luggage as a pathway for the introduction of Invasive Alien Species into Barbados and the OECS and, by extension, the wider Caribbean.

Key messages

The key messages will be communicated and reinforced using various media:

- IAS have devastating economic and social impacts on Caribbean biodiversity, livelihood and the national economy.
- Every person has to take responsibility for ensuring that IAS are not introduced into the region
- The transportation of IAS is illegal and you can be fined on summary conviction.

The key to re-enforcing these messages is the active searching of passenger luggage, in collaboration with customs officials, for items that pose biosecurity risks.

Key Considerations

The Target Audience

The primary target audience is the travelling public. They are male and female; local, regional and international; of varying ages and ethnicity; with different levels of education and varying knowledge of IAS. They also vary in their value systems, willingness to embrace change, and sense of environmental and social responsibility. While it is not easy to capture the attention of this diverse group, the *Declare, Deposit or Pay* has the advantage of having a captive audience comprising passengers on a plane or ship. The challenge lies in getting them to accept the content of the messages. The campaign will therefore carefully consider and identify who to target for greatest impact and use this to inform the development of communication material.

The primary targets

- Decision makers with respect to what to pack and carry. While this includes just about every person travelling, in a group situation, there may be a clear leader in this regard.
- Home gardeners, commercial plant and animal producers
- Persons wishing to transport ethnic, exotic or gourmet foods
- Hikers and outdoor sports enthusiasts who may transport soil and organic material on their shoes, clothing and backpacks.

Secondary targets

Once an invasive species enters the region, it is only a matter of time before it spreads to neighbouring countries, so a united front against IAS must be encouraged. The *Declare, Deposit or Pay* campaign plan will therefore be shared with the governments of Barbados and the OECS as well as with relevant groups based in these countries. This transparency will help to gain support and mitigate misunderstandings.

Communication material developed for the campaign will be shared with relevant stakeholder groups and organisations in all countries in which the campaign will take place. This will help to ensure that the right messages are communicated effectively. Those targeted are:

- Agricultural producer associations and horticultural/ garden clubs
- Agricultural marketing organizations
- Port authorities (both air and sea)
- Ministries of Agriculture and Ministries of Health
- Airlines servicing the Caribbean

Legal authority

The legal authority must be in place to fine persons if they do not comply with the requirement to declare or dispose of items of concern.

Campaign elements

Planning and endorsements

Letters from CABI will be sent to stakeholders seeking their support to implement the campaign at air and sea ports.

Funding

Funding will be provided by the 'Preventing the Costs of IAS in Barbados and the OECS Project'

Human Resources and Key Partners

- A Project Manager and other members of a team will be responsible for the execution of the campaign. Included in the team would be persons who would engage travellers, one to one, during periods when the passenger arrival numbers increase; usually for national events.
- An Advisory Committee will endorse and facilitate the implementation of campaign activities and suggest modifications so as to ensure sustainability post project. The Advisory

Committee, which would report to the Cabinet post pilot and liaise with the Project Manager during the pilot, should include: airport authorities, seaport authorities, customs and excise personnel, public health officials, chief plant quarantine officers, chief veterinary officers, national tourism representatives, and tour guides/travel agents.

- The campaign communication publications and outreach material should be published online, in traditional media (print, radio and television) and, possibly, on billboards outside the air and sea ports. This requires support from officials of the Government Information Service (GIS), airline personnel responsible for publication online as well as inflight magazines and videos, decision makers from partner organizations, and journalists.

Terminal Displays

Specifically-designed displays will be set up in airport and cruise ship terminals. A special bin for biosecurity waste will be at the core this display.

Biosecure Bins

The biosecure bins shall have the following key characteristics:

- The bins and bags will be clear to discourage their use for anything other than items that pose a biosecurity risk.
- The bins will have a one-way entry that will prevent the escape of insects or other live organisms as well as allow for retrieval of the contents by authorized persons only.
- Bins will be locked and allow for the contents to be secured before removal for inspection in an enclosed area.
- At least two bins will be installed at each airport or seaport in locations that are easily accessible to all arriving passengers, allow for it to be easily monitored as well as the contents analysed.

Data Analysis and Reporting

The real value of the *Declare, Deposit or Pay Campaign* is to provide concrete data and intelligence to make national surveillance more efficient at both air and seaports. All of the material disposed on in the biosecure bins will be carefully inspected in a secured, enclosed location for potential IAS threats. If needed, further examination by experts will confirm and identify IAS.

The resulting data must be stored in a system, such as the Caribbean Biosecurity Interception System, which can generate timely reports that provide the intelligence to more efficiently allocate the human and other resources available for surveillance. In addition, reporting

mechanisms would be reviewed periodically to assess which ones are most effective and whether any adjustments are needed.

Communication Material

The communication material developed will be shared with participating countries via the Project website: <https://caribbeaninvasives.org>

- A campaign identifier will be designed and placed on all communication outputs.
- A QR code will be placed on all printed outputs.
- Two brochures will be produced:
 - A popular brochure for travelling public will provide key messages in a simple and attractive format. This can be printed for distribution to the travelling public and distributed widely, including with passenger arrival cards. The information will also be published in magazines, such as the LIAT and Caribbean Airlines magazines, in the mass media, and online on websites (airports, airlines, government, IAS Project, partner organizations etc.)
 - A summary brochure for stakeholder groups and the media will provide more comprehensive information.
- A banner to be placed where all arriving passengers can immediately be reminded to *Declare, Deposit or Pay*.
- Signage to identify and explain the use of biosecure bins.
- A poster placed at strategic spots will highlight simple steps that people can take to reduce the risk of introducing or spreading of IAS. This can also be used as an advertisement in airline magazines etc.
- PowerPoint presentation - A video can be very expensive to produce while not being easily changed for different islands and purposes. A PowerPoint presentation containing the essential information that can be the basis for the production of different videos, as required by the countries using their available resources.
- Children's activity to be available in print and online
- Evaluation forms to establish knowledge and changes (incl. in behaviour)

Monitoring and Evaluation

Outputs will be measured by the number of visitors, number of distributed communication products, and the execution of planned activities.

Outcomes will be measured by changes in the responses given in the evaluation forms as well as in the number of items disposed of in the special biosecure bins. The evaluation forms will be distributed with passenger arrival forms over the period of the campaign. They will determine:

- Whether the intended target audience is being reached
- Knowledge of IAS and changes with frequent travel.
- If there are segments of the target audience that are not becoming more aware of campaign messages
- Opinion regarding presentations, whether or not they felt the event was useful, and any suggestions to improve future events
- The target audience's behaviour and attitudes, as well as changes in behaviour and attitude observed since the start of the planning stage of the campaign

The Campaign in Other Caribbean Countries

Resources needed

1. Communication material produced for the *Declare, Deposit or Pay* Campaign.
2. Human resources (quarantine services, media and IT services, government information and communication services).
3. Finances (for reproducing, modifying and printing communication material, display stands and props, promotional events, media and IT services).

Some suggestions for additional communication outputs

- Luggage tags featuring the identifier
- Publicity material displayed at strategic locations, such as computer/mobile charging stations
- Children's activity sheets e.g. help to spot the pests
- Short promotions to coincide with country events e.g. carnival, festivals

The Pilot Campaign in Participating Countries

There is significant travel air and sea travel to Caribbean destinations. Many islands are popular holiday destinations for cruise ships and the yachting community. The *Declare, Deposit or Pay* Campaign will therefore have to keep a focus on those arriving by sea. Each campaign is expected to run for a minimum of four months and, ideally, for a duration of six months. This will allow sufficient time for a proper evaluation and making long-term recommendations.

The Components

1. Letters from CABI will be sent to all stakeholders and their support for the campaign obtained.
2. Aboard the vessel
 - The PowerPoint presentation will be available for viewing.
 - The inflight magazine will feature the advertisement as well as the activity for children.
3. Communication material will be shared with stakeholder groups and the local media.
4. The terminal will be prepared with:
 - The banner positioned to achieve maximum visibility by all arriving passengers
 - The poster to capture the attention of passengers as they move to the immigration area
 - The biosecurity bin will be identified with signage and prominently located before the customs area.
 - A box for the collection of completed evaluation forms will either be located close to the biosecurity bin or just before the customs area.

Promotional event days at air and sea terminals, when members of the campaign team engage travellers individually. This will coincide with national events such as carnivals, music festivals and sporting tournaments.

Handling Biosecurity Risk Items

Declared Items

Once an item is declared, the national procedures in place should be consistent with the guidelines established by the International Standard for Phytosanitary Measures (ISPM) 23 and the standards set by the World Organisation for Animal Health (OIE). The pilot will serve to reinforce these guidelines for inspection. When any regulated pest is intercepted or any

prohibited or restricted plant products found in the amnesty bins, then the procedures outlined in the following section should take effect.

Items Deposited in Biosecure Bins

The contents of the Amnesty Bins must be examined in a secured, enclosed location. Once any prohibited plant or plant product is discovered and is known to be a host of pest(s) of major phytosanitary concern to the country of arrival, the inspector should take the following actions:

- Inspect for presence of the targeted pest or disease of concern
- When live organisms are encountered on items deposited in the bins, the inspecting officer should:
 - Collect and attempt to identify all live organisms
 - Refer to relevant specialists with the appropriate pest interception form, all organisms believed to be of phytosanitary significance that cannot be properly identified immediately by the inspector.
 - Prepare and preserve specimens for their final determination and possible incorporation in any local collections.
 - Keep adequate records of interceptions and subsequent actions in order to establish appropriate references for future actions.
 - Input the data into the Caribbean Biosecurity Interception System when it becomes operational. Once this happens, the information will be accessible to other Caribbean countries

Action Plan

The action plan will guide the activities involved in the campaign and help to ensure a successful rollout. The tool will provide transparency and accountability. At the national level, activities will be access by each country to determine the person/s responsible, output, date and budget.

Activity	Person/s Responsible	Output	Date	Comment	Budget
REGIONAL					
1. Hire a consultant to develop a Campaign Plan	Regional IAS Project Coordinator	Campaign Plan	May 31	Slightly delayed	
2. Circulate plan among stakeholders at the national level	Regional IAS Project Coordinator	Final Regional campaign plan inclusive of copy and artwork for rolling out the communication strategy for the campaign	June 15		
3. Obtain national commitment to roll the campaign at the national level	Regional IAS Project Coordinator with National Project Coordinators (NPCs) and Directors (NPDs)	Agreement and national plans to roll out of the ' <i>Declare, Deposit or Pay</i> ' Campaign with budget modified for each participating country	June 30		
NATIONAL ROLL OUT					
1. National plans approved by NPDs and National Steering committees	NPCs and NPDs	National plans approved for roll out of the pilot project	July 15		
2. Agreements signed with National Air and Sea Ports to implement the Plan			July 22		

3. Part-time staff hired to assist with the roll of the campaign including monitoring the amnesty bins.			July 1		
4. Public launch of the programme			July 27		
5. Public Awareness campaign implemented nationally			July 20		
6. Campaign implemented					
7. Data inputted into the Caribbean Biosecurity Interception System and monthly reports generated					

References

Antigua and Barbuda Research and Statistics Department in the Ministry of Tourism, Foreign Affairs & Immigration. 2017. End of Year Report. [Available at <https://statistics.gov.ag/wp-content/uploads/2018/12/2017-Tourism-Year-in-Review.pdf>]

Bellard C., Cassey P., & Blackburn T.M. (2016) Alien species as a driver of recent extinctions. *Biology Letters*, 12.

Bradshaw, C.J.A., et al. (2016). Massive yet grossly underestimated global costs of invasive insects. *Nature Communications*, DOI.

Crystal-Ornelas R., et al. 2021. Economic costs of biological invasions within North America. *NeoBiota* 67:485-510.

Diez et al. 2012. Will extreme climatic events facilitate biological invasions? *Frontiers in Ecology & Environment*, 10(5):249-257.

European and Mediterranean Plant Protection Organization. 2019. PM 3/86 (1) Raising public awareness of Quarantine and Emerging Pests. *Bulletin OEPP/EPPO Bulletin (2019)49(3)*, 488–504.

IPBES. 2019. Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Díaz, S. et al (eds.). IPBES secretariat, Bonn, Germany. 45 pages.

IUCN. Undated. IUCN Position paper: A post 2020 target on invasive alien species (IAS)| An IUCN & IUCN SSC Invasive Species Specialist Group proposal for a global target to address IAS, which is made without prejudice to IUCNs final position on the post-2020 framework [Available at: <https://www.iucn.org/files/2019-post-2020-target-invasive-alien-species6112019pdf>].

Mazza G., and E. Tricarico (eds) 2018. *Invasive species and human health*. CABI, Wallingford.

Seebens, H., et al. 2017. No saturation in the accumulation of alien species worldwide. *Nat. Commun.*, 8, 14435.

Sherring, P. 2019. Declare or dispose: protecting New Zealand’s border with behaviour change. *Journal of Social Marketing* 10 (3).

Spatz, D.R., et al. 2017. Globally threatened vertebrates on islands with invasive species. *Science Advances*, 3 e1.

Zenni R.D., F. Essl, E. García-Berthou, et al. 2021. The economic costs of biological invasions around the world. *NeoBiota* 67:1-9.