



**IMPLEMENTING SUSTAINABLE LOW AND NON-CHEMICAL
DEVELOPMENT IN SMALL-ISLAND DEVELOPING STATES
(ISLANDS) IN THE CARIBBEAN**

**TERMS OF REFERENCE:
POLYVINYL CHLORIDE (PVC)
WASTE MANAGEMENT EXPERT
CONSULTANCY**

Project Countries

The Bahamas (BHS), Barbados (BDOS), Cuba (CUB), Dominica (DOM),
Guyana (GUY), Trinidad and Tobago (TTO)

The Basel Convention Regional Centre for Training and
Technology Transfer for the Caribbean (BCRC-Caribbean)



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1. BACKGROUND

The **Implementing Sustainable Low and Non-Chemical Development in Small Island Developing States (ISLANDS)** Programme¹ seeks to address the sound management of chemicals and waste in Least Developed Countries (LDCs) and Small Island Developing States (SIDS). This ISLANDS Programme covers four (4) geographical regions including **the Caribbean**, Indian Ocean, Pacific Islands, and Atlantic Ocean Islands. The Programme is funded by the Global Environment Facility (GEF).

The **Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean (BCRC-Caribbean)** is currently executing the following two (2) Caribbean Projects²:

- GEF 10279 which involves **nine (9) countries** (Antigua and Barbuda, Barbados, Belize, Dominican Republic, Guyana, Saint Kitts and Nevis, Saint Lucia, Suriname and Trinidad and Tobago) and is implemented by the **United Nations Environment Programme (UNEP)** and the **Food and Agriculture Organisation of the United Nations (FAO)**.
- GEF 10472 which **involves three (3) countries** (The Bahamas, Cuba, and Dominica) and is implemented by the **UNEP**.

The management of halogenated plastics, especially Polyvinyl Chloride (PVC) has been highlighted as an area of concern for several of the GEF ISLANDS Caribbean Project Countries. PVC is one of the most widely used polymers globally; it is extensively used across a broad range of industrial, technical, and daily applications as it is a very durable and long-lasting material that can be used in a variety of applications. Based on the regional priority areas of concern

¹ Programme Website here: [GEF Islands](#)

² Project Briefs: <https://bit.ly/3H8vD5M>

and the significant sectors involving PVC use, **this activity will focus on the management of PVC plastic wastes** in the Bahamas, Barbados, Cuba, Dominica, Guyana and Trinidad and Tobago.

Currently, in the project countries, PVC waste is largely comingled with municipal and construction waste and goes to landfills or other waste management sites. Open burning of wastes (including PVCs) is a significant source of Unintentionally Produced Persistent Organic Pollutants (UPOPs)³, such as PCDDs/PCDFs⁴. Most emissions result from dumpsite/landfill fires and from the backyard burning of municipal solid waste by households and recyclers. When burned, UPOPs are released along with other pollutants which eventually contaminate the environment (air, soil, and sediments)⁵. Similar to other POPs designated under the Stockholm Convention on Persistent Organic Pollutants⁶, when these UPOPs such as PCDDs/PCDFs are released to the environment, there are permanent human health and environmental implications such as altered liver function, immune, endocrine, and nervous system abnormalities, cancers, and disruption of biological systems in plants and animals.

For the purposes of this consultancy the BCRC-Caribbean is seeking to recruit **a suitably qualified and experienced Polyvinyl Chloride (PVC) Waste Management Expert** to assess the material flow of PVC wastes from selected sectors in six (6) participating project countries (The Bahamas, Barbados, Cuba, Dominica, Guyana, and Trinidad & Tobago) and identify the environmentally sound management (ESM) options for the same under Activity 3.3.2 of the projects.

This activity will seek to develop and conduct a suitable assessment on PVC in selected sectors of the six (6) participating countries, which should involve the

³ [Overview of polyvinyl chloride \(PVC\) waste management practices in the Nordic countries - ScienceDirect](#)

⁴ Polychlorinated dibenzo p dioxins/ polychlorinated dibenzofurans

⁵ [\(1\) \(PDF\) A Win-Win Combination to Inhibit Persistent Organic Pollutant Formation via the Co-Incineration of Polyvinyl Chloride E-Waste and Sewage Sludge \(researchgate.net\)](#)

⁶ [Stockholm Convention - Home page \(pops.int\)](#)

determination of the types and quantities of PVC plastics produced and used, and waste generated, the generators of the waste and existing disposal or recovery methods, if any. This will be done with the overarching aim of developing environmentally sound solutions for same and designing pilot projects to demonstrate the feasibility of the solutions.

2. DESCRIPTION OF REQUIRED SERVICES FOR THIS CONSULTANCY

The main objective of this consultancy is to assess the material flow of PVC waste from selected sectors in each of the six (6) participating project countries and identify the ESM options for diverting this waste stream from landfills. The following points elaborate the relevant sectors in each project country for consideration under this consultancy:

- The Bahamas – tourism sector as it relates to PVC waste from the hotel industry, and the cruise ship industry, given that tourism forms the basis economy of this project country. Collaboration with the hotel industry with the aim of diverting their generated construction and demolition waste from landfills and promoting their recycling and proper disposal can also be considered.
- Barbados – tourism sector as this project country has a predominantly tourism-based economy with high renovation rates in the hospitality industry.
- Cuba – the agricultural and tourism sectors, primarily with respect to the PVC plastic waste in the hotel industry and coverings used in the banana agricultural industry. Collaboration will also be established in Varadero in Cuba with the aim of diverting PVC generated by the hotel industry from landfills and promoting their recycling and proper disposal.

- Dominica – the agricultural sector with respect to plastic waste and coverings in the banana industry since Dominica has a thriving agriculture-based economy. Collaboration will be established with the Emergency Agriculture Livelihoods and Climate Resilience Project being executed by the World Bank in Dominica.
- Guyana – the construction sector since consideration has been given to the projected construction boom as a result of the commercialization of fossil fuels. PVC piping is widely used in the construction of ceilings and windows in Guyana.
- Trinidad and Tobago – It is the only participating project country which manufactures PVC (two (2) manufacturers have been identified in the updated National Implementation Plan under the Stockholm Convention⁷) for regional distribution. Therefore, the focus will be placed on the manufacturing and construction sectors since Trinidad and Tobago has been identified as one of the highest generators of PVC waste due to its comparative size and industrialization.

Under the guidance of the BCRC-Caribbean, the Consultant will undertake the following:

I. Project Inception Phase

- Attend an administrative briefing meeting with the BCRC-Caribbean.
- Develop a **workplan, stakeholder engagement plan and methodology**, to be presented at the Virtual Inception Meeting⁸.
 - This methodology will inform the conduct of the Assessment phase and should include a detailed plan for execution of these assessments and feed into the workplan and stakeholder engagement plan, with due consideration given to execution in the

⁷ National Implementation Plan (NIP) for the Stockholm Convention on Persistent Organic Pollutants last updated for Trinidad and Tobago in 2019.

⁸ The BCRC-Caribbean will facilitate the organization and streamlining of the virtual inception meeting.

Caribbean context. It should ideally comprise of a questionnaire or other applicable data collection tool which can be utilized by National Project Assistants (NPAs)⁹ or other supporting entities in each of the participating countries to support with the conduct of this phase. The tool developed must be adaptable to each of the individual participating countries in their own unique context. The methodology should include background and structure of the most suitable assessment procedure.

- Facilitate a Virtual Inception Meeting with key stakeholders such as the National Working Groups (NWGs)¹⁰, national focal points and waste management specialists. At this stage, the consultant will be provided with feedback on the proposed workplan, stakeholder engagement plan, methodology as well as planning for the assessment phase.
- Develop an Inception Meeting Report which outlines the stakeholders that are to be engaged during the project, the finalised workplan, the approved finalised methodology, and a summary of the proceedings of the Inception Meeting.

II. Assessment Phase

- Conduct **assessments** for the relevant sectors in each of the six (6) participating project countries, which should include, but are not limited to:
 - The assessment of sources and generators of PVC waste (PVC imported, produced, and exported) from the identified sectors, quantities, and types of PVC material produced, and waste generated, trade flow of PVC material, the activities or products

⁹ National Project Assistants (NPAs) are project human resources in each project country to support with technical backstopping and national on-the-ground support, as it relates to the implementation of project activities.

¹⁰ The National Working Group (NWG) is a project mechanism developed in each project country where key stakeholders and experts in the field of chemicals and waste management are responsible for providing guidance on the execution of the project on relation to their national context. NWGs are led by a chairperson and comprise of national representatives.

which generate PVC waste, and any other relevant information on the lifecycle of PVC.¹¹

- The assessment of existing PVC waste management practices and disposal methods (if any) from the identified sectors in each of the six (6) participating countries, including existing information on the socio-economic implications and gaps in the ESM of the PVC waste stream.
- The development of recommendations as to the most effective means of filling the ESM gaps and identification of sustainable alternative materials or products based on similar functionalities.
- Develop **national assessment and recommendations reports** which consolidate findings from each assessment and include but are not limited to options for the ESM of the PVC wastes, as well as the options for reduction in consumption where possible, with consideration given to:
 - the feasibility of each option,
 - the identification of gaps in the national capacity to support the implementation of the prioritized option, and
 - recommendations to address these gaps.

III. Consolidation and Validation Phase

- Facilitate¹² **six (6) national validation workshops**¹³ in which the findings of the national assessment and recommendations reports will be presented and discussed with national stakeholders. These workshops should also include presentation of the draft proposed recommendations or solutions to address the gaps identified.

¹¹ Under Output 3.1 of this project, a Waste Electrical and Electronic Equipment (WEEE) assessment will be conducted. This should be taken into consideration to synergize efforts as it relates to stakeholder engagement.

¹² The BCRC-Caribbean will facilitate the organization and streamlining of the six (6) national validation workshops.

¹³ The BCRC-Caribbean will facilitate the logistics for the national validation workshops (venue, catering, audio visual equipment, etc.). However, the Consultant will be responsible for including reimbursable travel expenses in their financial proposal.

IV. Regional Strategy Development Phase

- Development of a **regional strategy** for the Caribbean, for the lifecycle management of PVC wastes in the different sectors identified (this can include the raw material extraction, materials and product manufacture and distribution, use and end-of-life of PVC). This regional strategy on the ESM of PVC waste will address the diversion of PVC material from landfills and illegal dumpsites, in collaboration with the public and private sectors¹⁴.
- Facilitate a virtual **Regional Consultation Session**¹⁵ with key stakeholders from each of the six (6) participating countries.
 - These consultations should serve to validate the regional strategy to support its finalization based on regional priorities and resources.

V. National Roadmap and Pilot Project Design Phase

- Based on the regional strategy, design **roadmaps** for the national implementation of the lifecycle management for PVC in the relevant sector for each of the six (6) participating countries.
- Facilitate virtual **national consultations** with key stakeholders in each of the six (6) participating countries.
 - These consultations should serve to validate the national roadmaps, regional strategy, and pilot project designs, and to discuss the priority aspects which would be most feasible to carry forward into pilot phase based on the national context.
- Design **projects** which focus on **piloting** one (1) aspect of the national roadmaps in each participating project country¹⁶.
 - For five (5) of the six (6) pilot projects, consideration¹⁷ must be given to:

¹⁴ This strategy will facilitate the uptake of the ESM of PVC by other Caribbean countries, including those which may not be beneficiaries of this project activity.

¹⁵ The BCRC–Caribbean will facilitate the organization and streamlining of the Regional Consultation Session.

¹⁶ These pilots will be determined based on a pilot project budget of USD50,000 per country.

¹⁷ Based on the country needs identified within the PPG Phase of the GEF ISLANDS 10279 and 10472 projects.

- The tourism sector in **Barbados**,
 - The construction sector in **Guyana**,
 - The manufacturing or construction sector in **Trinidad and Tobago**,
 - Demonstration of the environmentally sound options for diversion of PVC wastes from landfills in the relevant sectors in **The Bahamas**, or **Dominica**¹⁸, and,
 - Collaboration with Iberostar in Varadero in **Cuba** to identify ways to divert plastics generated by the hotel industry from landfills, and to promote the recycling or proper disposal. Recommendations will follow 3R and circular economy approaches, including the complete phase-out of single use plastics by hotels. The expansion of this pilot project to The Bahamas should also be considered.
- These pilot projects should consider:
 - Financial, human, and technical resource requirements,
 - Training and capacity building materials/plans,
 - Assessment of behavioural change,
 - Awareness raising campaign and communications strategy, and
 - Monitoring & Evaluation plan¹⁹.

VI. Reporting

- Prepare and submit **Quarterly Reports**²⁰ to the BCRC-Caribbean highlighting the consultancy activities completed, stakeholders engaged/meetings held, deliverables submitted, payment progress, challenges encountered, mitigation measures for these challenges, as

¹⁸ For Cuba and Dominica, synergies should be established under Activity 2.2.4 to facilitate integration of the interim storage facility designed as a part of the pilot project for that Activity.

¹⁹ All deliverables applicable to and involving Spanish speaking project countries are to be provided in Spanish, as well as English.

²⁰ A template will be provided by the BCRC-Caribbean to be used as guidance on Quarterly Reporting.

well as upcoming activities and expectations for the next quarter, within an agreed upon timeframe.

VII. Activity Closure Phase

- Attend a **Closure Meeting** with the BCRC-Caribbean to review and discuss the consultancy.
- Prepare a **Closure Report** highlighting the consultancy activities completed, challenges encountered, and any recommendations or lessons learnt.

3. EXPECTED OUTPUTS

The Consultant, under the guidance of, and reporting directly to the BCRC-Caribbean, is expected to provide the following:

- **One (1) Inception Meeting Report (Deliverable 1)** including a preliminary stakeholder engagement plan, the finalised workplan²¹, the approved finalised methodology, and a detailed summary of the Inception Meeting.
- **Six (6) National Assessment and Recommendations Reports (Deliverable 2)** on the life cycle of PVC wastes in selected sectors in six (6) participating project countries, including but not limited to environmentally sound management options. These should consolidate findings from each assessment, and consider the feedback received during the six (6) national validation and technical workshops.
- **Six (6) National Validation Workshop Reports (Deliverable 3)** documenting the consultation on, and presentation of the national draft assessment and recommendations reports to the management of the waste management entities and key decision makers within the waste management sector.

²¹ The workplan and timeline should reflect accommodations for the review of Deliverables by the BCRC-Caribbean and the NWGs.

- **One (1) Regional Strategy (Deliverable 4)** for the lifecycle management of PVC wastes.
- **One (1) Regional Consultation Report (Deliverable 5)** which validates the regional strategy through a summary of the regional consultation session.
- **Six (6) National Roadmaps (Deliverable 6)** for national implementation of environmentally sound PVC wastes management measures in the six (6) participating countries (based on Deliverable 4).
- **Six (6) Pilot Project Designs (Deliverable 7)** which focus on piloting one (1) aspect of the national roadmaps in each project country.
- **Six (6) National Consultation Reports (Deliverable 8)** which validate the roadmaps, regional strategy, and pilot project designs, and summarize the consultation sessions with each of the project countries.
- **Six (6) Quarterly Progress Reports (Deliverable 9)** as a part of project monitoring and evaluation.
- **One (1) Closure Report (Deliverable 10)** which details and summarizes the activities undertaken during the consultancy, any challenges, and lessons learnt.

4. QUALIFICATIONS, EXPERIENCE AND SKILLS

In order to facilitate the activities in the six (6) participating project countries, the Consultant is required to possess the following Education, Qualifications and Experience:

Education and experience:

- A Postgraduate Degree in the Natural Sciences, Environmental Sciences, Environmental Engineering, or related fields with tangible experience in the environmentally sound management of chemicals and waste management.
- Project management certification (PMP, PRINCE2 etc.) and/or a minimum or five (5) years project management experience.
- A minimum of ten (10) years professional experience in solid hazardous waste management, involving plastic waste, including but not limited to PVC waste management.
- A minimum of ten (10) years professional experience working on and managing multinational (such as UN agencies and the GEF) and multidisciplinary team projects.
- A minimum of five (5) years professional experience in design and implementation of waste and chemicals management pilot projects (including monitoring and evaluation plans and communications campaigns) in the Caribbean region and/or other SIDS.
- Demonstrated knowledge of Multilateral Environmental Agreements (MEAs), particularly the Basel and Stockholm Conventions,
- Demonstrated knowledge of the BAT/BEP on UPOPs, plastic waste and PVC waste management would be an asset.
- Experience in facilitating workshops and stakeholder engagement.

- Professional experience in the management of PVC wastes in the Caribbean region and /or other SIDS would be an asset.
- Experience in project/proposal design would be an asset.

Functional competencies:

- Strong and highly developed interpersonal skills, communication and negotiation skills;
- Strong diplomatic skills with networking aptitude and ability to work in a team;
- Good writing, reporting and presentation skills;
- Excellent time management skills;
- Ability to deliver quality results against tight deadlines, given a heavy workload and short timelines;
- Proficiency in the use of Microsoft Office Suite.

NOTES:

- *The working languages of the **GEF ISLANDS Programme are English and Spanish**. As such evidence of the ability to conduct work in both English and Spanish should be clearly demonstrated in the technical proposal submitted by the consultant. Project correspondence, outputs and consultations are expected to be conducted with English/ Spanish interpretation and translated resources²²; All deliverables must be submitted in both English and Spanish.*
- *The GEF ISLANDS Programme recognizes the need to be gender inclusive. As such the consultant is expected to take responsibility for incorporating gender perspectives and ensuring the equal participation of women and men in all areas of work.*

5. DURATION

The tasks of this consultancy are estimated to be completed in **eighteen (18) months**.

²² Interpretation and Translation resources will be the responsibility of the consultant.

6. REMUNERATION

- A total gross fee plus expenses to the Consultant inclusive of all taxes will be as agreed on and mentioned within the contract based on the financial proposal developed and negotiated cost for this consultancy.
- Expenses will be paid on a reimbursable basis where evidence of expenditure is provided in accordance with the terms of the contract agreement.
- Payment shall be made in instalments based on the satisfactory completion of key deliverables identified within the contract and agreed on between the BCRC-Caribbean and the Consultant.

7. INSTITUTIONAL ARRANGEMENTS

The Consultant will be directly supervised by the BCRC-Caribbean.

8. MODE OF WORK

Recognising the concerns surrounding the COVID-19 virus, the Consultant will be expected to follow all COVID-19 safety protocols in all countries during face-to-face engagements. Travel between project countries may be required and the expenses incurred from travel (i.e., travel, accommodation, per diem) will be reimbursed by the BCRC-Caribbean by mutual agreement. All health-related risks associated with travel, are the Consultant's responsibility. Likewise, any visas required for travelling or taxes and duties arising from said consultancy.

9. APPLICATION CRITERIA

Documents to be included when applying are as follows:

1. **Signed Cover Letter** confirming availability to start work within the month of January 2024.
2. **Technical Proposal** including the Consultant's **Curriculum Vitae (CV)**, inclusive of contact information for at least two (2) references in each case, for relevant past project/work experience. This proposal must also describe the approach to work and include the methodology and workplan, and non-financial resources to be assigned.
3. **Financial Proposal**, which should provide the best fixed priced in **United States Dollars (USD)** to complete the proposed work. The fees and detailed expenses should be matched up against key milestones and a breakdown of the fees and expenses associated with each project task (in accordance with the Bill of Quantities template provided in Appendix 1 should be included in the proposal.

10. APPLICATION PROCEDURES

A. APPLICATION SUBMISSION

Applications must be submitted on or **before Tuesday October 17th at 11:59 p.m. (Trinidad and Tobago, GMT-4)** to:

Ms. Jewel Batchasingh

Director

Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean

#8 Alexandra Street, St. Clair,

Port-of-Spain,

Trinidad and Tobago.

Email: submissions@bcrc-caribbean.org

Applications received after this time will be rejected.

B. QUERIES

Interested applicants can submit all queries in writing to **both**:

Ms. Janine Boodram Research Analyst BCRC-Caribbean Email: janine.boodram@bcrc-caribbean.org	Ms. Shalina Rooplal Research Officer BCRC-Caribbean Email: shalina.rooplal@bcrc-caribbean.org
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You are advised to submit your queries with sufficient time before the deadline to avoid any potential delays due to technical or high traffic issues. When submitting queries via email, candidates must ensure that the email subject contains **"Query-TOR_BCRC_ISLANDS+_2023_004_LastName_FirstName"**.

The bids received will be reviewed and evaluated by the BCRC-Caribbean in a fair and impartial way in accordance with the BCRC-Caribbean's Evaluation Procedure and Criteria. Following the evaluation process, the identification and recommendation of a proposed bidder to the Director of the BCRC-Caribbean will be made for consideration. The estimated timeline for the completion of the evaluation process is four (4) to six (6) weeks. However, please note this timeline is contingent upon the number of bids received and if there is a need to enter into negotiations with the preferred bidder.

NOTES:

<p>Submission</p>
<p>i. When submitting bids, bidders must ensure that all documents are clearly labelled according to the following protocol: BCRC_ISLANDS+_2023_004_LastNameFirstName_DocumentTitle</p> <p>ii. The bid documents must be submitted in PDF file format unless otherwise stated.</p> <p>iii. The successful bidder will be notified in writing of the award of the contract and provided with a letter of offer. The successful bidder shall be required to enter into an appropriate Contract based on the tender documents and incorporate any other appropriate provisions within that time.</p>
<p>Obligations</p>
<p>i. The BCRC-Caribbean reserves the right to accept or reject any bid, and to cancel the bidding process and reject all bids, at any time before the award of the Contract, without thereby incurring any liability to the affected bidder.</p> <p>ii. Any data gathered and draft or final deliverables developed under the execution of this position shall not be shared with third parties without approval from the BCRC-Caribbean.</p>
<p>Language</p>
<p>i. The working languages of the GEF ISLANDS Caribbean Projects are English and Spanish. As such a bilingual applicant would be an asset. Project correspondence, outputs, and consultations are expected to be conducted with English/ Spanish interpretation and translated resources; the ability to communicate in Dutch will be regarded as an asset.</p>
<p>Gender Sensitivity</p>
<p>i. ISLANDS is a project enabling equal opportunity for applicants to overcome structural biases in recruitment and selection. ISLANDS does not discriminate in its recruitment practices, welcoming applications from all qualified people. We strongly encourage applicants of diverse and marginalized backgrounds, especially race or ethnic minorities, Indigenous peoples, youth, and/or anyone identifying as a gender or sexual minority.</p>
<p>Conduct and Disabilities</p>

- i. Reasonable accommodations for applicants with disabilities may be provided to support participation in the recruitment process when requested and indicated in the application.
- ii. The successful bidder will be expected to uphold professional conduct throughout the contracted period. Any misconduct, including unprofessional behaviour, will result in mutual termination of the agreement.

Health and Travel

- i. All health-related risks associated with travel are the Consultant’s responsibility.
- ii. Recognizing the recent concerns related to the COVID-19 pandemic²³, the Officer will be expected to follow all COVID-19 safety protocols in all countries during face-to-face engagements and travel.

ISLANDS Reporting Requirements

- i. In accordance with the reporting requirements stipulated by the GEF and UNEP, the Consultant will be required to report the global positioning system (GPS) coordinates for meetings and site visits conducted while on missions to the Project Countries.
- ii. To support with the knowledge management requirements under the Coordination, Communication and Knowledge Management (CCKM), the Consultant will be required to assist with the collection of content for knowledge products related to work under the consultancy, e.g., photographs and summary notes from stakeholder engagements. These may be included in the Consultant’s reports, as well as the reports and social media posts of the BCRC-Caribbean.
- iii. The Consultant will be required to apply the GEF ISLANDS Branding Kit, Gender Action Plan, Stakeholder Engagement Plan and Communications Strategy to all work under this consultancy, including the development of presentation, reports, etc. All templates and documents will be provided to the Consultant by the BCRC-Caribbean and guidance on the use of the

²³ As of May 05, 2023, COVID-19 is now classified as an established and ongoing health issue, which no longer constitutes a public health emergency of international concern. [https://www.who.int/news/item/05-05-2023-statement-on-the-fifteenth-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-coronavirus-disease-\(covid-19\)-pandemic](https://www.who.int/news/item/05-05-2023-statement-on-the-fifteenth-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-coronavirus-disease-(covid-19)-pandemic)

GEF ISLANDS Branding Kit, plans and strategies will be discussed at the briefing meeting between the BCRC-Caribbean and the Consultant.