

MedWaves
Agència de Residus de Catalunya
C/Provença, 204 – 208
08036 Barcelona, Spain

Terms of reference (TOR) for the recruitment of a technical expert/consultancy based in Lebanon with knowledge of chemicals management to provide assistance on the implementation of the pilot project on prevention of 3 new POPs under the GEF-Funded Mediterranean Sea Programme (MedProgramme) on Enhancing Environmental Security (2019-2024)

Component1:
Reduction of Land Based Pollution in Priority Coastal Hotspots, and measuring progress to impacts / Child Project 1.1
“Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hot Spots and Measuring Progress to Impacts” / Output 1.3
“Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hot Spots and Measuring Progress to Impacts”

About the position

MedWaves is seeking an independent expert to support it in the development of current projects focusing on new POPs and mercury pollution prevention in the Mediterranean. In particular, the expert will provide external support MedWaves in the implementation process of the inventorying, sampling and substitution of these chemicals with safe alternatives in three Mediterranean countries. The expert will also be involved in specific activities, led by MedWaves and aiming at providing policy support to these Mediterranean countries in fighting against toxic chemicals.

The duration of this consultancy is estimated until the end of December 2023, with a total expected dedication of 70% of the working days per month .

BACKGROUND/ DESCRIPTION OF THE PROBLEM AT STAKE

The continuing degradation of the Mediterranean coastal zone and marine environments, coupled with the urgent growing impacts of climate variability, the loss of livelihoods and dramatic deterioration of social conditions along critical sections of the Southern and Eastern Mediterranean shores, prompted the development of the Mediterranean Sea Programme: Enhancing Environmental Security (MedProgramme).

The coastal populace of the Mediterranean show significant diversity in terms of socioeconomic and gender aspects, leading to different population subgroups showing varying susceptibilities and vulnerabilities. Risks arising from pollutants and hazardous substances often work as threat multipliers, meaning although **chemical pollution and hazardous substances** have blanket exposure on general populations, the ramifications and long-term effects of these conditions vary. Threat multipliers exacerbate present conditions of poverty and lack of economic capital, lack of health equity and access, and gender and sociocultural differences, leading to different coping capacities of population subgroups.

In recent years, a number of POPs have been listed under the Stockholm Convention, we call these ‘new POPs’ since there is limited evidence of their impacts **specifically on the Mediterranean Sea**. However, in the scoping phase of this project and via the country NIPs, the use of 3 of these new POPs was confirmed in Lebanon, Tunisia and Morocco as priority chemicals in specific sectors:

1. **Perfluorooctanesulfonic acid (PFOS):** In 2009 Parties decided to list perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF) in Annex B to the Stockholm Convention (decision SC-4/17). **The use of firefighting foam containing PFOS** and other perand polyfluorinated alkylated substances (PFAS) has resulted in the contamination of ground water, drinking water and surface water in many countries including the Southern Mediterranean Sea, which are considered to be particularly vulnerable to water stresses and shortages under current climate change scenarios.

Climate stresses are also predicted to increase the frequency and weather-driven danger of fires in the Mediterranean region, resulting in increased need and extent of application of firefighting foams. PFOS is added in firefighting foam concentrates at levels between 1 to 10%, and then further diluted in water to produce the foam, such that 1 tonne of PFOS will generate between 16 to 33 tonnes of POPs waste foam with concentrations of PFOS above the low POPs limit of 50ppm. In addition to disposing of waste foams, the Stockholm Convention guidance also recommends that the wastewater from fire-fighting be gathered and managed in an environmentally sound manner. Failure to treat firefighting water has led to contamination of drinking water sources in Germany and the US. USEPA found that the drinking water of at least 6 million citizens has PFOS/PFOA levels above the health advisory level; while in Germany,

remediation of PFOS contamination at Dusseldorf Airport, including drinking water sources and a nearby lake, is estimated to cost 100m euro to remediate.

2. **Hexabromocyclododecane (HBCD)** In 2013, the Conference of the Parties listed HBCD in Annex A with specific exemptions for production and use of HBCD for expanded polystyrene (EPS) and extruded polystyrene (XPS) in buildings is a category of brominated flame-retardants, used in the Mediterranean in expanded polystyrene foam (EPS) and extruded polystyrene foam (XPS) in building insulation, and leading to exposure from products and dust at home and the workplace. HBCD is used at concentrations between 0.5 to 2.5%²¹, such that 1 tonne of HBCD results in the contamination of 100 to 200 tonnes of EPS/XPS. For example, Egypt alone uses 120,000 tonnes of polystyrene a year, although there is no data on how much of this is treated with flame retardants.
3. **Small chain chlorinated paraffins (SCCP) were** listed under Annex A of the Stockholm Convention in May 2017. This means that SCCP production and use must be eliminated by 2024. SCCPs are used as fat-liquoring in leather; plasticizers in sealants, flexible polyvinyl chloride, additives in rubber, waterproofing and fire-retardant paints; industrial oil in metal processing and lubricant.

CONTEXT TO MEDWAVES' INSTITUTIONAL FRAMEWORK

MedWaves is a centre for international cooperation on development and innovation based on the sustainable consumption and production approach (hereinafter SCP). It is attached to the Catalan Waste Agency (Agència de Residus de Catalunya, referenced as ARC).

The Centre is one of the Regional Activity Centres established in the framework of UNEP/Mediterranean Action Plan (hereinafter UNEP/MAP), the programme of UN Environment established to support the member countries of the Barcelona Convention for the Protection of Marine Environment and the Coastal Region of the Mediterranean. Since 2009, the Centre also operates in support of the Stockholm Convention, an international agreement involving 180 countries to fight against the generation of persistent organic pollutants, highly polluting and toxic substances. MedWaves has the mandate from the Barcelona and Stockholm Conventions to provide assistance to their Contracting Parties in fulfilling their commitments under those treaties, particularly through the support to the countries to shift to sustainable consumption and production patterns and circular economy.

In the performance of its mandate, MedWaves fosters the introduction of solutions on eco-innovation, marine litter/plastic pollution prevention, circular economy and safe alternatives to toxic chemicals through the provision of advisory services, technical assistance, innovative training materials, networking services and accompaniment in the implementation of measures. MEDWAVES also leads a comprehensive support programme for the creation and development of green, circular business models and enterprises.

Given its particular experience on the prevention of toxic chemicals in the Mediterranean region, MedWaves is involved in the execution of the Mediterranean Sea Program (Medprogramme): Enhancing Environmental Security funded by the Global Environmental Facility Trust Fund (GEF. Reference: ID 9607 together with UNEP/MAP (one of the executing Agency) and UNEP (implementing agency)

OBJECTIVE OF THE MEDPORGRAMME

The GEF/UN Environment “Mediterranean Sea Programme (MedProgramme): Enhancing Environmental Security” (2019-2024) represents the first GEF programmatic multi-focal area initiative in the Mediterranean Sea. It will operationalize priority actions to reduce major transboundary environmental stresses in its coastal areas while strengthening climate resilience and water security and improving the health and livelihoods of coastal populations.

As such, the MedProgramme is based on the success of the partnership between UNEP/MAP, the GEF and the 22 contracting parties to the Barcelona Convention. It is based on an overview of change that can generate a series of 8 interconnected components (projects) to move towards "A healthy Mediterranean with productive and biologically diverse marine and coastal ecosystems that contribute to sustainable development for the benefit of present and future generations".

More specifically, it aims to accelerate the implementation of agreed priority actions to reduce the main transboundary environmental tensions affecting the Mediterranean Sea and its coastal areas, while strengthening climate resilience, water security and improving health, in addition to increasing the livelihoods of coastal populations.

It will be implemented in ten beneficiary countries sharing the Mediterranean basin: Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Libya, Montenegro, Morocco, Tunisia and Turkey. Its eight Child Projects cut across four different Focal Areas of the Global Environment Facility Biodiversity [BD], Chemicals and Waste [CW], Climate Change Adaptation [CCA] and International Waters [IW]) and involve a wide spectrum of developmental and societal sectors ranging from banking institutions, the private sector, governmental and non-governmental bodies, industry, research, media, and various other organizations including Regional Activity Centers.

The MedProgramme is structured around 4 components:

- Component 1: Reduction of Land Based Pollution in Priority Coastal Hotspots and Measuring Progress to Impacts
- Component 2: Enhancing Sustainability and Climate Resilience in the Coastal Zone
- Component 3: Protecting Marine Biodiversity
- Component 4: Knowledge Management and Programme Coordination

MEDWAVES is mainly involved in the implementation of component 1, as described in the next section.

COMPONENT 1 - CHILD PROJECT 1.1

Under Component 1, MedWaves will be more particularly involved under Child Project 1.1, aiming to improve human health and coastal habitats, through the reducing pollution from harmful chemicals (POPs and mercury) and waste in Mediterranean hotspots and measuring progress to impacts. Hence, the project will focus on land-based sources of hazardous chemicals pollution, namely Persistent Organic Pollutants (POPs) banned under the Stockholm Convention, and mercury banned under the Minamata Convention. This work will complement actions by partners under Child Projects 1.2 and 1.3 which will focus on wastewater as a source of excess nutrient pollution to the Mediterranean.

Based on the problem and objective analysis the child project 1.1 has been designed around:

- a) Engaging with participating country governments on the provision of disposal options (for POPs) and long-term containment (for mercury) by UNEP/MAP; and

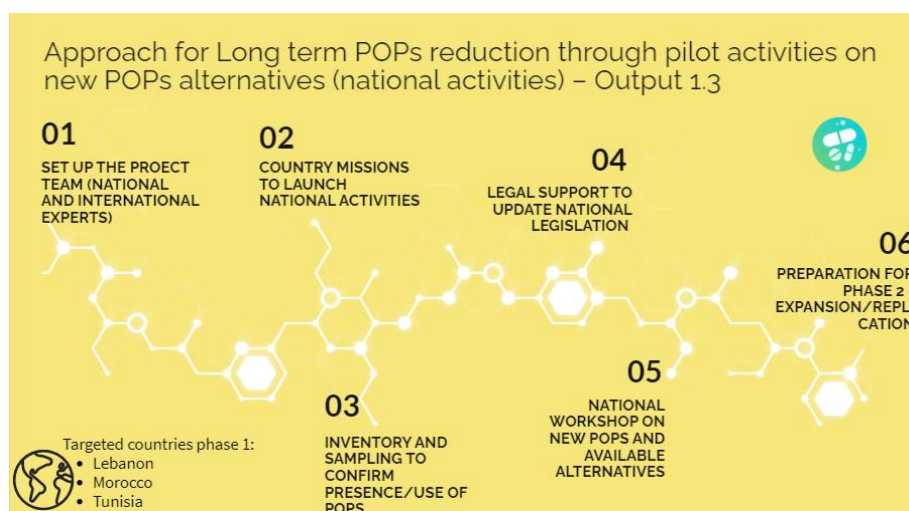
b) Raising awareness on new POPs in products and mercury in the healthcare sector, through targeted pilot activities to introduce alternatives by MedWaves.

These ToRs are related to the execution of ‘**Output 1.3. of Child project 1.1: Long term POPs reduction through pilot activities on new POPs alternatives**’, under the responsibility of MEDWAVES, which seeks to demonstrate the practical replacement of new POPs through the adoption of environmentally sound alternatives in Mediterranean countries. The first phase of the programme will beneficiate to Lebanon, Morocco and Tunisia.

Prevention of the new POPs identified in the Stockholm Convention National Implementation Plans (NIPs) will be focused on the following chemicals and sectors:

- **PFOS will target Civil Defence and public firefighting organizations**, as these are the single largest users of PFOS foams; and also due to the direct application of large volumes of foams directly onto soil and surface waters. While the gas & oil, and restaurant extinguishers sectors also import large volumes of PFOS, and may discharge unused foams directly to sewers, these are more dispersed among multiple users and not cost effective for a first pilot project to address.
- **HBCD will target importers of EPS/XPS pellet and manufacturers of EPS/XPS insulation panels** and architects, engineers, financiers and standard setting and procurement bodies who may have a role in setting specifications for building developments. Users in the building sector were prioritized over textiles in vehicles, because of a more limited number of users in the building sector, compared to textiles that are in every imported-in service vehicles, trucks, etc.
- **SCCP will target the whole sector of PVC production in Lebanon**, which is known to use large quantities of chlorinated paraffins, while data is scarce for other SCCP priority sectors such as paints and sealants, metal working fluids, lubricants and rubber. Secondly, the Ministry prioritizes this sector due to the high potential health impact for food-and water contact and medical applications such as PVC containers, PVC piping and PVC medical devices due to exposure to CPs.

Output 1.3 will be structured around the following set of activities, described in the graphic below. Its implementation will be coordinated by MedWaves, supported by a small team of international and national experts:



See Annex I to see the **COUNTRY BASELINE AND TARGETS – LEBANON**

ACTIVITIES, TASKS AND EXPECTED DELIVERABLES

The objective of the expert's mission within the context of these Terms of Reference will be **to provide assistance on the implementation of the prevention demonstration pilot to demonstrate the practical replacement of 3 new POPs through the adoption of environmentally sound alternatives in Lebanon**. The proposed mechanisms to effect change and change practices toward substitution of new POPs are similar for the 3 different chemicals/sectors and are grouped into two main action points for 2023 under Activity 1.3.1.

Under the direct supervision of MedWaves and an international POPs consultant, the technical expert will be responsible for the following tasks to be conducted in Lebanon:

A. Legal support and a coordinated awareness campaign for technical staff and political decision makers and officials, aiming to support updated legislation with mandatory provisions to restrict the import, export and use of PFOS-PFOA, HBCD and SCCP based on the Stockholm Convention requirements.

- For PFOS, updating water quality standard to include mandatory PFOS limits; new regulation to restrict import and use of PFOS foams. Furthermore for PFOS, international performance standards exist for firefighting foams, e.g. US, France, Australia, UK. However only some of these allow/favour the use of fluorine free (F3) and solvent free foams (Australian, UK) so adoption of these can support phase-out of PFOS
- For HBCD and SCCP the main legislation or provisions to be targeted are bans on import and use of these new POPs; and potential use of EPR legislation (where available) to oblige producers to manage wastes, thus providing incentives for adoption of alternatives

TASK A.1: Organize and facilitate a seminar/workshop in accordance with the instructions and content prepared by the lead expert. The consultant will be responsible for:

- Compiling a list of relevant guests and managing/ensuring their attendance,
- Providing the appropriate venue for the meeting.
- Cover the rental costs and other costs associated with the logistics of the seminar which must be validated and previously authorized in writing.
- Coordinate the attendance of speakers and compile their presentations ensuring desk/IT support on the day of the meeting
- Record attendance of participants
- Deliver a report outlining the objective, interventions and main outcomes.

The consultant must submit the following documents to the MedWaves project manager:

1. Compilation of participants, roles and contact details.
2. Report outlining the objective, interventions and main outcomes of the seminar.
3. Financial report detailing the event costs of the event and payments to third parties.

B. TESTING AND TRAINING IN ADOPTION OF ENVIRONMENTALLY SOUND ALTERNATIVES. This assistance will be provided directly to users and producers of new POPs and related products, and seek to unlock particular barriers include technical/ process barriers as well as procurement and financial barriers.

- For PFOS, current tenders of firefighting foams in the public sector do not include any sustainability criteria, such as specifying PFOS free option. The pilots will support adoption of such sustainability criteria in the procurement of firefighting foams. Secondly, the project will cover the cost difference of environmentally sound alternatives (Fluorine and solvent free foams) to substitute PFOS firefighting foams in several facilities.
- For HBCD, Technical assistance and training with key importers, retailers and producers of HBCD to promote environmentally sound alternatives and support testing and technology shifts to enable the substitution of

HBCD in production processes. This may include supply of alternatives e.g. butadiene-styrene brominated copolymer to substitute HBCD in the EPS/ XPS construction sector.

- For SCCP, working with PVC producers to promote environmentally sound alternatives and support and co-finance testing and technology shifts to enable the substitution of SCCP (or MCCP with SCCP content above legal limits) in production processes.

TASK B.1: Organize and facilitate the seminar in accordance with the instructions and content prepared by the lead expert. The consultant will be responsible for:

- Compiling a list of relevant guests and managing/ensuring their attendance,
- Providing the appropriate venue for the meeting.
- Cover the rental costs and other costs associated with the logistics of the seminar which must be validated and previously authorized in writing.
- Coordinate the attendance of speakers and compile their presentations ensuring desk/IT support on the day of the meeting
- Record attendance of participants
- Deliver a report outlining the objective, interventions and main outcomes.

The consultant must submit the following documents to the MedWaves project manager:

4. Compilation of participants, roles and contact details.
5. Report outlining the objective, interventions and main outcomes of the seminar.
6. Financial report detailing the event costs of the event and payments to third parties.

MEANS AND MODALITIES OF WORK

- The expert will start the work after the validation of the offer by the contractor, , until the end of 2023.
- The expert will work under the supervision and coordination of the Policy Area team of MEDWAVES and with the support of an international expert on POPs.
- The expert will work with his/her own means and should be based in Lebanon.
- Working languages will be English and Arabic (with local stakeholders).

ELIGIBILITY

The expert applicant must fulfill the following requirements:

- Be an individual consultant and able to comply with national fiscal context and rules for receipt of international funds from Spain.
- Have a bank account whose holder name must be the same as the applicant.
- Partnership and subcontracting are not allowed.
- Availability travel across Lebanon to meet with key stakeholders (in case COVID-19 restrictions allow it)
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PROFILE AND QUALIFICATIONS OF APPLICANT EXPERTS

The experts must have knowledge on the area they are applying to work in.

More precisely, the qualifications required are:

- Academic degree in Chemistry or engineering with proven expertise that will allow the expert to easily understand the technical aspects of the mentioned new POPs and their industrial application
- Proven and relevant professional experience linked to the required services, in particular a strong network within the Ministry of Environment, Ministry of Industry
- Proven experience within the UN system or acquainted with international organizations.
- Link or experience in the abovementioned industrial syndicates/associations positively valued
- Ability to write in English. All documents should preferably be presented in English.

- Ability to communicate in Arabic and English.

HOW TO APPLY AND SELECTION PROCESS

Candidates should submit the following documents. The official forms to be submitted can be downloaded here.

1. **Technical offer** (maximum 4 pages): The bid must describe to what extent the applicants satisfy the conditions (profile and qualifications), show their ability to carry out their mission successfully and how they plan to carry out the activities set out in these terms of reference. The bid must include a financial proposal. The technical bid can include suggestions for improvement.
2. **Profile and project references** (maximum 2 pages): the expert should submit a brief professional background, including project references on the topic. CV shall be included as annex.
3. **Financial offer**: the consultant(s) should state the personnel dedication expressed in days (1 day = 8 working hours) and per activity, as well as a lump sum for other costs related to the implementation of work. The maximum amount considered is 13000€ (all taxes included).
4. Bank form filled in, signed and stamped by the bank (if the stamp is not possible, the candidate will annex a digital certificate).

Offers must be sent to jordimoles@gencat with the subject 'Technical expert new POPs Lebanon - MedProgramme' before September 14th 2023, midnight (CET).

All candidates will be notified upon the reception of the offers.

Applications who meet the requirements will be assessed and rated in accordance with the following criteria (100 points):

Points	Criteria
Maximum 45 points	The extent to which the technical bid is responding to the needs.
Maximum 20 points	Financial bid.
Maximum 25 points	Technical expertise in the same type of mission.
Maximum 10 points	Other qualifications and additional proposals for improvement.

The MEDWAVES may also conduct personal interviews to facilitate the assessment.

If you have questions concerning these ToR, please contact: jordimoles@gencat.cat

SELECTION AND PAYMENTS

The winning candidate will be notified by email on the selection of the offer. From that moment on, work can start according to the calendar.

The payments will be made by bank transfer upon presentation of the invoices, in two instalments and will be done upon approval of the following deliverables:

- 50% - Upon completion of deliverables 1, 2 and 3, (November 2023)
- 50% - Upon completion of deliverables 4, 5 and 6 (December 2023)

Payments will be done in a period of 60 days after reception and validation of the invoice. The Contractor is not responsible for banking costs that might be applied by the consultant(s) bank, neither for changes in currency exchange.

AUTHORSHIP AND OWNERSHIP OF THE WORK

The ownership of the work covered by the Contract related to this ToR shall belong to the MedWaves and any use or mention thereof in publications, articles, interviews, conferences, etc., in any language and without any temporal or territorial limitation, shall have the relevant authorization and indicate the MedWaves as the owner. Thus, the selected expert(s), on behalf of any persons who, if appropriate, may collaborate with him/her in the drawing up of the Report, will assign to the MedWaves the rights for the reproduction, distribution and sale of the Report, in any form of publication and commercialization, for its use in any language and throughout the world, as well as for its partial reproduction for teaching or research purposes. Nevertheless, the MedWaves shall ensure that the name(s) of the material author(s) of the document appear(s) prominently on all the copies which are published, so that the latter may use the final or partial results of their work in the terms stipulated in this contract.

CONFIDENTIALITY CLAUSE

The information to which the selected expert(s) obtains access for the development of the purpose of this Contract, provided that it is not classified as public, shall be of a confidential nature and may not be used for activities other than those included in this Contract. In the event that a particular use of the information raises doubts with regard to respect for this Confidentiality Clause, the successful bidder must, in any case, request the consent of the MedWaves.

Annex I

COUNTRY BASELINE AND TARGETS – LEBANON

This table describes the country context at the time of the project preparation phase indicating the presence of new POPs in the latest NIP and the initial scope of work identified in the priority sectors.

NIP (2017)*	<p>The NIP update includes three new POPs, with inventories for PFOS and HBCD and SCCP highlighted as a priority in the Action Plan.</p> <p>The PFOS inventory confirmed no use of PFOS in the surface treatment or paper production sectors, but identified nine retailers and extinguisher refilling companies for firefighting forms, which are imported by three suppliers.</p>
National capacity for POPs analysis	<p>Yes</p> <p>PFOS available from lab which sends samples abroad (Qatar and UAE)</p>
New POPs status as determined during PPG Phase	<p>Visits to 4 suppliers /importers estimated total import of foams/ extinguishers is 6 tonnes in 2016 and 32 tonnes in 2017.</p> <p>Stockpile of 5,000-15,000 litres of foams held by Issa Petrol Trade Oil & Gas.</p> <p>POPs legislation and standards:</p> <ul style="list-style-type: none"> • Lebanese Standard Institution (Libnor) Standards (NL: 161:2016) for water quality (drinking water) sets non-obligatory limit of 200mg/l; Decision 8/1/2001 (Standards for Environmental Quality) sets Environmental Limit Values (ELVs) for wastewater but no limits are specified for any POP. • No restrictions on PFOS in either import/export regulations. Law 432 dated 08/08/2002 which transposed the Stockholm Convention but National Decrees have not yet been passed to extend the obligations to the new POPs. • National standards on firefighting equipment (but not on foams) are set by Libnor. Suppliers of foams use different international standards <p>Procurement: Civil defense purchase firefighting foams every around 2 years from the local suppliers through a public tender. Such tenders have never specified that the firefighting foam should be PFOS free.</p> <p>Contaminated sites: no national standards for POPs, however the following fire incident sites may be contaminated with PFOS: Ashrafieh, Beirut Port, Jnah, Zokak Belat (2010), Koraytem, Zarif, Zokak Belat (2012), Karantina, Talet Khayat, Biel.</p>
POPs Prevention targets	<ul style="list-style-type: none"> ▪ Up to 22 tons PFOs foams in 2017 ▪ Up to 3 tons HBCD imported per year/ est 600 tons XPS/EPS ▪ SCCP no specified target

*The selection of countries and chemicals for the demonstration pilots was driven by eligibility considerations (that the country had included the new POP in its NIP update) and by feasibility considerations (e.g. political support and commitment from government and industries). In most cases NIP update inventories do not provide quantitative information, making it impossible for the project to estimate quantities of new POPs that could potentially be reduced in the pilot projects.