

EXPRESSION OF INTEREST (EOI) DOCUMENT

FOR

**PROCUREMENT OF FIELD DISTILLATION UNITS
INCLUDING SUPPLY, INSTALLATION, COMMISSIONING
& TRAINING.**

EoI No.: MEG INR/2023/837

Dated: 13th November, 2023

Issued by:

THE INSTITUTE OF NATURAL RESOURCES

**3rd Floor, Shalom Building,
Lower Laichumere,
Shillong-793001**

Contents

1. Notice Inviting Expression of Interest (EOI).....	3
2. Important information and dates:	3
3. Introduction to the project.....	3
4. Scope of Work:.....	4
4.1. Mission’s Objectives	4
4.2. Approach.....	4
4.3. Project Components:.....	5
4.4. Scope of Work	7
4.5. Deliverables.....	7
4.6. Duration of the Assignment: 1 year	Error! Bookmark not defined.
5. Eligibility Criteria	7
6. Instruction to the Bidders	8
7. General Information, Financial, Similar Work Experience & Expert Details	10

1. Notice Inviting Expression of Interest (EOI)

The Institute of Natural Resources (INR) invites Expression of Interest (EoI) from experienced and eligible firms for Supplying, Installation, Commissioning and Training of Field Distillation Units in the Project area in Meghalaya.

2. Important information and dates:

EoI No	MEG INR/2023/837
Name of the Work	Procurement of Field Distillation Units Including Supply, Installation, Commissioning & Training.
Date of Issue of EoI	13 th November, 2023
Last date for submission of Clarification queries	18 th November, 2023, by 1500 hours
Pre-Bid Meeting	18 th November, 2023, by 1530 hours
Last date & time of submission of EOI	30 th November, 2023 by 1500 hours
Date & Time of Opening of EOI Applications	30 th November, 2023 by 1530 hours
Address for communication/submission of EOI	Procurement Unit, MegLIFE Office 2 nd Floor, Shalom Building Lachumiere-793001 Shillong
Proposal Submission	Hard Copy

3. Introduction to the project

Cultivation of Medicinal & Aromatic Plants is gaining momentum day by day due to ever increasing demand of plant-based materials naturals in India and abroad. However, sustained supply of high-quality planting materials is a common problem faced by user industries. In this endeavor efforts are being made by CSIR-CIMAP to introduced improved technologies and high yielding varieties to increase quality planting materials by the growers and entrepreneurs in the country. The Institute of Natural Resources under Meghalaya Basin Development Authority has planned promotion of medicinal and aromatic plants related activities in the State with the aim to introduce develop and disseminate technologies for cultivation, promotion and processing among the growers and entrepreneurs of the state in a time bound manner. It is emphasized to introduce only such commercially viable crops such as aromatic grasses, Geranium, Patchouli, Pyrethrum, Palmarosa and other crops which are suitable to the agro-climatic conditions of the State. Indigenous aromatic plants such as Gautheria fragrantissima, Litsea cubeba, Zanthoxylum khasianum can be explored for their aromatic oils. It is emphasized to conduct trials relating to plant genotype and environment interaction, production of the plants for field trials at farmers field through CIMAP technologies with special reference to the commercially viable plant varieties in aromatic grasses, Geranium, Patchouli, Pyrethrum, Palmarosa and other crops of economic value suited to the state of Meghalaya.

It is emphasized that introduction of selected MAPS crop in prevailing cropping system in the implementation area shall ensure optimum utilisation of resources effectively and augment income of the growers and entrepreneurs besides generating additional employment opportunities in the State. The MAPs on an average are likely to provide a net profit of Rupees Fifty thousand to One lakh per hectare.

4. Scope of Work:

4.1. Mission's Objectives

In order to bring a decisive and transformative change in the rural economy, a mission has been conceptualized which aims for:

- Promotion of cultivation of High value crops in all districts of the State.
- Developing demonstration blocks in form of cluster of commercially importance medicinal and aromatic plants for the state at district level with the area of approximately 10-20 acres in each district initially.
- Establishing multiplication and processing facility for elite planting material of high yielding varieties of selected medicinal and aromatic plants suitable for Meghalaya.
- Establishing conservatories of genetic resources as a part of further providing planting material to the growers.
- Demonstration of processing facility (distillation unit) related technologies to development entrepreneurship.
- Gas Liquid Chromatography
- Establishing laboratory units for determining chemical content or analysing quality of oil.
- To arrange buy back of produce.
- To identify and domesticate the excess exploited medicinal and aromatic plant from wild source of Meghalaya.

4.2. Approach

To achieve the objective of the mission the following approaches are planned-

- Developing cluster of priority medicinal and aromatic plants by planting high yielding varieties developed by CSIR CIMAP.
- Observation and data recording on suitability of these plants.
- Release of an information brochure on these plants in local language.
- Development of macro propagation and nursery techniques.
 1. Establishment of varieties of selected plants for further distribution to growers.
 2. Macro propagation under green house for large scale multiplication.
- Conducting training programmes on cultivation and production of MAPs and one or two awareness camps in the farmers' clusters.
- To provide motivation and skill promotional training to growers/farmers in MAPs cultivation and distillation methods for development of entrepreneurship.
- Establishing distillation and quality evaluation facility for processing of plants for demonstrations.

- Further identification of plants of regions which are overexploited in some pockets and needs cultivation to safeguard the biodiversity.
- To increase organic farming through set up of vermin-composting units for distillate waste utilization.

4.3. Project Components:

A. Awareness/Capacity Building/Skill Development

B. Cultivation/primary processing/cluster formation

- Selection of interested farmers/ growers willing to take up nursery raising at the initial stage
- Selection of crops
- Promotion of cultivation and processing of aromatic crops
- Multiplication of the planting material of the selected crops
- Selection of clusters of farmers and promotion of cultivation of these crops to newer suitable areas to enhance area under cultivation of selected crops.
- Setting up of distillation units, and catalyzing setting up of farmers cooperatives for marketing the produce
- Market Linkage

Coverage

Selected Partners	District	Block	Crop type	Recommended Capacity	No. of Units
Kucholson PG	EGH	Dambo-Rongjeng	Lemongrass, Citronella	1 Ton	1
Aromatic Plant Farmers Producer Organisation	NGH	Kharkutta	Lemongrass, Citronella	1 Ton	1
Dondima IVCS	SWG	ZikZak	Lemongrass, Citronella	1 Ton	1
Tangbang VO, Baghmara	SGH	Baghmara	Lemongrass, Citronella	500 Kg	1
Khasi Adop VEC, Ranikor	SWKH	Mawkyrwat	Lemongrass, Citronella	500 Kg	1
Kiewshaphrang VO, Mawkyrwat	SWKH	Mawkyrwat	Lemongrass, Citronella	500 kg	1
Marnagar Group, Khliehmawlieh	WKH	Nongstoin	Geranium, Basil	100 Kg	1
Langumshing A, Mawshynrut	WKH	Mawshynrut	Lemongrass, Citronella	500 Kg	1
Nongriangba IVCS, Mawshynrut	WKH	Mawshynrut	Lemongrass, Citronella	500 Kg	1
Mawlong Area Aromatic Producer Association	RB	Umling	Lemongrass, Citronella	500 Kg	1
Kyllumlang VO, Umdohbyrthih	RB	Bhoirybong	Lemongrass, Citronella	500 Kg	1
Tyllilang SHG, Pamaban	RB	Umsning	Lemongrass, Citronella	500 Kg	1
Persara SHG, Umtham	RB	Umsning	Lemongrass, Citronella	500 Kg	1
Wahkaliar IVCS, Wahkaliar	EKH	Shella Bholaganj	Lemongrass, Citronella	500 Kg	1
JathynroitMawbeh Cluster, Mawbeh	EKH	KhatarshnongLaitkroh	Wintergreen	250 Kg	1
Mr. Carefulstar Lyngdoh, Enterprenuer	EKH	Mawphlang	Lemongrass, Citronella	500 Kg	1
Chanlang Multipurpose Co-operative Society	WJH	Thadlaskein	Lemongrass, Citronella	500 Kg	1
Skhenpyrsit IVCS, Amlarem	WJH	Amlarem	Lemongrass, Citronella	500 Kg	1
Bosco Integrated Development Society, Saphai	WJH	Laskein	Lemongrass, Citronella	500 Kg	1
Iatyllilang SHG, Mynthlu	EJH	Saipung	Lemongrass, Citronella	500 Kg	1
Total Units					20

4.4. Scope of Work

- a) Vendors should have successfully supplied and installed minimum five distillation units in last two year.
- b) The vendor should be willing to supply the distillation units, installation, testing and commissioning at various locations of the state strictly on the basis of specifications given in Annexure 1
- c) The vendor will have to arrange for the accommodation, transportation & installation of the distillation units at the respective sites including loading/unloading, piping, civil materials, construction of furnaces, labours & fitting costs as per actual requirements etc.
- d) Vendor will have to arrange all tools, equipment's, labours, and civil material etc for unloading, installation and testing of units at respective site.
- e) The vendor should give one-year onsite warranty on the distillation units to be installed by them inclusive of all spares, consumables, gaskets, valves etc.
- f) Delivery period: The unit has to be supplied and installed within 90 days from date of purchase order.
- g) The vendor should provide technical support and training to the farmers on the operations, maintenance and troubleshooting of the units.

4.5. Deliverables

To provide infrastructural support to selected partners (mention in coverage) and facilitate establishment of Field Distillation Units (FDUs) for post-harvest processing of Aromatic crop to achieve substantial socio-economic growth through processing of essential oils.

5. Eligibility Criteria

Interested Agencies/Firms should provide information demonstrating that they have the required qualifications and relevant experience to deliver the services. The eligibility criteria are listed below:

Sl. No.	Eligibility Criteria	Documentary proofs to be submitted
1	A minimum of 10 years of proven experience in the fabrication and installation of distillation units. This experience should include the successful completion of similar projects in various industries.	Work order/Purchase order
2	A track record of executing at least 2 work orders with a minimum order value exceeding Rs. 1.50 Crores each, specifically for government departments. These contracts should demonstrate the ability to handle substantial projects for government entities.	Work order/Purchase order
3	Possession of a valid ISO 9001:2015 certification, which underscores the commitment to quality management systems and processes. This	Copy of the certificate valid as on date of publishing of the EoI

	certification ensures that the supplier adheres to international quality standards.	
4	Providing certificates or documentation confirming the successful installation and trial operation of previously supplied distillation units. These certificates should demonstrate a history of delivering functional and reliable systems.	Work order/Purchase order/Completion certificate duly verified by the client
5	The Agency must be incorporated & registered in India, under the Indian Companies Act /Societies Registration Act/Trust Act /any other Act in India and should be in operations in India for minimum of 5 years	Registration certificate
6	The Agency/Firms should have an average annual turnover of INR 3 Crores in the last three years (FY 2019 - 20;2020 - 2021 and 2021 - 2022 to be enclosed)	CA audited balance sheet/Turnover certificate duly signed by the CA
7	Experience of working with Central or State Governments, or UN or Multilateral Development Banks or Donor funded projects on similar aspect	Work order/Purchase order/Experience letter duly certified by the client
9	The agency should submit complete work profile along with technical literature, brochure of the machineries as per the technical specifications mentioned in the EoI document	Signed and verified documents

NOTE: *There should be an INDEX page, where relevant sections should be highlighted with proper page numbering. Agencies who fail to comply to the above-mentioned criteria will be rejected.*

6. Instruction to the Bidders

- a) Firms/Agencies who are selected in EoI process will only be allowed to participate in RFP/Tender process for Procurement of Field Distillation Units Including Supply, Installation, Commissioning & Training. under INR.
- b) The Bidders are required to bid strictly as per terms and conditions given in the Notice Inviting EOI documents and not to stipulate any deviations.
- c) The bidders are advised to submit complete details with their Proposals as Pre-qualification Bid Evaluation will be done on the basis of documents submitted by the bidders.
- d) Proposals with Incomplete / Ambiguous information will be rejected.
- e) The bidders are advised in their own interest to submit their proposal well in advance from last date/time of submission of proposals so as to avoid problems which the bidders may face in submission at last moment.
- f) Bidder has to submit copies of all the documents. If the bidder is found ineligible after opening of bid, the bid shall become invalid.

- g) Notwithstanding anything stated above, INR reserves the right to assess the capabilities and capacity of the bidders, in the overall interest of INR. In case, bidder's capabilities and capacities are not found satisfactory, INR reserves the right to reject the bid.
- h) Submission of Queries: The bidders(s) if required, may submit queries, if any, through e-mail to mbdaprocurement@gmail.com before the date and time mention in the document. INR will reply only those queries which are essentially required for submission of proposals. Queries received after date specified will neither be entertained nor replied.
- i) Rejection of Proposals: INR reserves the right to reject any or all proposals or cancel/withdraw the invitation of EOI without assigning any reasons whatsoever thereof. The applicants are cautioned that not giving complete information called for in the EoI or not giving it in clear terms or making any change in the prescribed forms or deliberately suppressing the information may result in the applicant being rejected. Applications made by telegram or telex, E-mail, and those received late will not be entertained. Overwriting should be avoided. Correction, if any, should be made by neatly crossing out, initialing, dating and rewriting. Pages of the pre-qualification documents should number. They should be submitted in a proper order as per the details mentioned in the index.
- j) References, information and certificates from the respective clients certifying suitability, technical knowhow or capability of the applicant should be signed by an officer not below the rank of Executive Engineer/Project Manager or equivalent for Govt./Semi Govt./ PSUs/ autonomous bodies Works and Director/Sole Proprietor/Partner of the Company or Firm as the case may be for private clients.
- k) The applicant may furnish any additional information which he thinks is necessary to establish his capabilities to successfully complete the works. The applicants are however, advised not to furnish superfluous information. No information shall be entertained after submission of pre-qualification documents unless it is called for by INR.
- l) Canvassing in connection with the Notice Inviting EOI is strictly prohibited, and such canvassed Proposals submitted by the bidder will be liable to be rejected.
- m) Final Decision-Making Authority: INR reserve the right to modify the eligibility criteria, to decide on cut-off date of implementation, to accept or reject any application, to annul the Pre-Qualification process, to reject all applications or accept new applications at any time, without assigning any reason or incurring any liability to the applicants. It also reserves the right to change the coverage and scope of the study by dividing the study across sectors and geographical regions and to allocate work to different agencies for different sectors and geographical regions.

7. General Information, Financial, Similar Work Experience & Expert Details

EoI For:

MANDATORY INFORMATION DOCUMENTS:

a) General Information of the Bidder:

1	Name of Applicant/Company	
2	Address for correspondence	
3	Official e-mail for communication	
4	Contact Person: Telephone Nos. Fax Nos. Mobile	
5	Type of Organization:	
6	Place and Year of Incorporation	
7	Name of Directors/Partners in the organization	
8	Name(s) and Designation of the persons, who is authorized to deal with INR (Attach copy of power of Attorney)	

b) Turn Over Details:

Financial Year 2020-21	Financial Year 2021-22	Financial Year 2022-23	Average Annual Turnover

c) Similar Work Experience Details:

Sl. No	Name of the work	Date & Ref. no. of completion certificate (If available)	Project value (Rs.)	Reference document (Work Order/ Work Completion Certificate) to be attached, mention page no.

ANNEXURE-1 - Technical Specifications

1. 1000 KG CAPACITY SS FIELD DISTILLATION UNIT

Sl. No.	Requirement	Specifications
1.	SS Distillation tank	1800Ø x 2100 H x 3 thk SS with 1900Ø x 3.0 thk SS Top lid with reinforcement with swing arm lid opening system, 125 Ø x 500 long SS vapor pipe; inbuilt SS Square calandria 3 thk x 1800 x 1800 x 450H with 4 thk bottom and 6 x 150 Ø SS 1800 long pipes. Volumetric capacity of tank ~ 5300 lt
2.	Condenser (1 no.)	Vertical / Horizontal Shell & tube type shell 1500L x 450Ø x 3thk SS with 25Ø x 16 gauge 60 nos SS-304 pipes welded on 12 thk SS Tube plate supported on MS structured frame
3.	SS 304 Oil Separators (2 nos)	(i) 600H x 500Ø x 2.0 thk SS 304 with conical top and inlet funnel & water outlet 25 Ø100x100 flanged glass visualizer, with SS15 mm ball valves - 2 nos (ii) SS 2.0 thk x 500 x 500Ø separator for heavy oils like vetiver.
4.	MS Chimney (1 no.)	300Ø x 6000 L x 3 thk M.S with 450 x 450 x 12 thk MS Base Plate with 5 mm Guy Wire
5.	Accessories	(i) 25 x 50 x 600 cast iron fire bars (30 nos) fitted on MS fire grate (ii) 3000 lt PVC water tank (iii) Fire door, front flue duct, etc (iv) 1700 Ø SS false bottom / grid - 2 nos with 10 thk MS tested chain 1500 x 4 each (v) All nuts/bolts to be of GI
6.	Chain pulley hoist system and Structure	Height ~ 6000 mm made of 50x50x5 thk angle iron square pillars - 2 nos with span length ~ 7000 mm and central I-Beam 200 x 100 length 7500 along with 2 Ton cap. INDEF make chain pulley with trolley
7.	Water tank with MS Structure	1800 x1800 x 4500 (H) made of MS angle iron / pipe to be supplied with 3000 lt capacity branded PVC water storage tank
8.	Charging Platform	MS 1200 x1000 x 1000 (H) with 4 nos MS stairs to be fixed on back side
9.	Furnace	to be constructed of Red / Fire ash bricks as per availability. Furnace to be plastered and painted with cement paint
10.	Installation of the unit	Installation of the unit on turnkey basis including complete installation with all civil material, labour, plumbing, fixture, CPVC piping / fittings, valves etc. at SITE

2. 500 KG CAPACITY SS FIELD DISTILLATION UNIT

Sl. No.	Requirement	Specifications
1.	SS Distillation tank	1400 Ø X 1800 x 3.0 thk with top flanged lid 1500 Ø x 2.0 thk swing arm lid opening system, inbuilt SS Square calandria 1400 X 1400 x 350H x 3 thk sides and 4 thk bottom with 5 nos 100 Ø MS smoke pipes and 600 x 75Ø SS flanged vapor line, Volumetric capacity of tank ~ 2500 lt. Unit to be insulated with 50 mm glass wool and 22 gauge aluminium cladding
2.	Condenser	Shell & tube type horizontal inclined condenser with MS shell and SS-304 tubes & bonnets 1500 L x 300Ø with 25Ø 16 gauge x 40 nos SS tubes welded on 10 thk SS tube plate supported on MS structured frame.
3.	SS 304 Oil Separators:	(i) 450 H x 350Ø x 2.0 thk SS 304 with conical top, inlet funnel and water outlet 20Ø, 100x100 flanged glass visualizer, with 2 nos. SS15 mm ball

		valves (ii) SS 2.0 thk x 350Ø x400H separator for heavy oils. (only for vetiver)
4.	MS Chimney	250Ø x 4800 x 3 thk M.S in two pieces with 400x400x12 thk MS Base Plate and 5 mm guy wire
5.	Material unloading system	Chain pulley block system with MS angle iron support structure 16ft H x 18ft L and 150x75 I beam with 1.0 ton cap indef pulley & geared trolley
6.	Accessories:	CI Fire Bar 25 X 50 x 500, 18 nos fitted on MS fire grate, fire door, front flue duct, 1350 Ø SS False bottom cage with 8thk SS Chain , All nuts/bolts to be of GI
7.	Water tank with MS support structure	1600 X 1600 x 4000 (H) made of MS angle iron / pipe to be supplied with 2000 lt capacity branded PVC water storage tank.
8.	Charging Platform MS	1000 x1000 x 1000 (H) with 4 nos MS stairs to be fixed on back side
9.	Furnace	to be constructed of Red / Fly ash bricks as per the designs. Furnace to be plastered and painted with cement paint
10.	Installation of the unit	Installation of the unit on turnkey basis including complete installation with all civil material, labor, plumbing, fixture, CPVC piping / fittings, valves etc. at SITE

3. 250 KG CAPACITY SS FIELD DISTILLATION UNIT

Sl. No.	Requirement	Specifications
1.	SS 304 Distillation Tank	1000Ø x 1500 x 2 thk SS with top flanged top lid 1100 Ø x 2 thk. With swing arm lid opening system, 450 Ø hinged discharge hole, Inbuilt SS Square calandria 1000 x 1000 x 350H x 3thk sides and 3 thk bottom, consisting of 75 Ø SS Smoke pipes 5 Nos. and 75 Ø SS flanged vapor line. To be fitted on MS 4 thk inbuilt Furnace. Unit to be insulated with 50 mm thk glasswool and 22 gauge GI cladding
2.	Condenser SS 304	Horizontal Shell column to be insulated with 50 mm glass wool and 24 gauge aluminum cladding & tube type with SS shell and 1200L x 250Ø with 20 Ø 16 gauge x 40 nos SS pipes welded on 10 thk SS tube sheet supported on MS structured frame
3.	Oil Separator	350 H x 300Ø x 2 thk SS 304 with conical top and 100Ø inlet funnel and 20Ø water outlet and 100x100 flanged glass visualizer, with SS-15 mm ball valves
4.	MS Chimney (1 no.)	150Ø x 2000 x 3 thk M.S A class pipe with flanged connection to MS furnace and top cover
5.	Accessories	(i) CI Fire Bar 25 X 50 x 500, 12 nos fitted on MS fire grate (ii) Fire door, front flue duct etc (iii) 900Ø SS False bottom cage with SS chain (iv) All nuts/bolts to be of GI
6.	Support Structure	Support structure for cohobation column condenser/ separator: 1400 x 1400 x 3000(H) made of 50 Ø MS pipe/legs and 600 mm railing including step ladder
7.	Water tank with MS Structure	1600x1600x4000 (H) made of MS angle iron / pipe to be supplied with 2000 lt capacity PVC water storage tank.
8.	Transportation and installation	Transportation and installation of the unit on turnkey basis including complete installation with all civil material, labor, plumbing, fixture CPVC piping / fittings, valves etc. at SITE

4. 100 KG CAPACITY SS FIELD DISTILLATION UNIT

Sl. No.	Requirement	Specifications
1.	SS 304 Distillation Tank	800 Ø x 1200 x 2 thk SS with top flanged top lid 1000 Ø x 2 thk. 300 Ø hinged discharge hole, Inbuilt SS Square calandria 800 x 800 x 250H x 3thk sides and 3 thk bottom, consisting of 60 Ø SS Smoke pipes 4 Nos. and 500 x 50 Ø SS flanged vapor line. To be fitted on MS 4 thk inbuilt Furnace with 2.5 thk MS x 10 ft chimney including CI Fire Bars fitted on MS fire grate, fire door, front flue duct etc and 800Ø SS False bottom cage with SS hooks. Unit to be insulated with 50 mm glass wool and 22-gauge GI cladding
2.	Condenser 1 SS 304	Horizontal Shell & tube type with SS shell and 900L x 250 Ø with 20 Ø x 32 nos SS pipes welded on 10 thk SS tube sheet supported on MS structured frame - 01 No.
3.	Oil Separator 1	300 H x 75 Ø x 2 thk SS 304 with conical top with flanged glass Visualizer.
4.	Oil Separator 2	300 Ø X 350 H x 2 thk SS 304 with conical top with flanged glass Visualizer.
5.	Hydrosol collector	SS Drum 50 lt with 25 Ø SS drain ball valve and top cover with funnel
6.	Water tank with MS Structure:	1200 X 1200 x 5000 (H) made of MS angle iron / pipe to be supplied with 1000 lt capacity PVC water storage tank.
7.	Support Structure	Support structure for cohobation column condenser/ separator: 1350x 1350 x 2500(H) made of 50 Ø MS pipe/legs and 600 mm railing including step ladder
8.	Transportation and installation	Transportation and installation of the unit on turnkey basis including complete installation with all civil material, labor, plumbing, fixture CPVC piping / fittings, valves etc. at SITE