ICIMOD

REQUEST FOR PROPOSALS

Consultancy services for the preparation of solar thermal roadmap and implementation plan for Nepal

1. Background

Nepal, with its abundant solar resources and growing energy demand, stands at a crucial juncture in its energy transition journey. As the country strives to enhance energy security, mitigate climate change impacts, and promote sustainable development, the harnessing of solar energy, particularly through solar thermal technologies, has emerged as a promising solution to meet diverse energy needs across sectors such as heating, cooling, and industrial processes.

With the support of the Austrian Development Agency (ADA), ICIMOD is implementing a project on just transition to green, low carbon, and efficient energy solutions and innovations in the Hindu Kush Himalaya (HI-Energy Transition). The primary objective of this project is to enable mountain communities and enterprises in the agriculture and tourism sectors to just transition to green, low carbon, and efficient mountain-specific energy solutions and innovations across the region.

As part of this project, recognising the transformative potential of solar thermal technologies, ICIMOD, in collaboration with the Alternative Energy Promotion (AEPC), the Government of Nepal, is embarking on the development of a comprehensive solar thermal roadmap and implementation plan. This initiative seeks to chart a strategic course for the widespread adoption and integration of solar thermal technologies into Nepal's energy landscape, thereby contributing to the country's long-term energy security, economic prosperity, and environmental sustainability.

The solar thermal roadmap and implementation plan will serve as a guiding framework to:

- Assess the current status and potential of solar thermal technologies in Nepal, including existing installations, technological capabilities, market trends, and policy and regulatory frameworks
- Identify key sectors and applications with high potential for solar thermal deployment, such as industrial process heat, space heating, water heating, and cooling
- Analyse the socio-economic, environmental, and technical feasibility of integrating solar thermal technologies into Nepal's energy mix, considering factors such as resource availability, cost-effectiveness, and local capacity-building needs

- Define short-term, mid-term, and long-term targets, objectives, and milestones for the deployment of solar thermal systems, aligned with national development priorities, energy sector goals, and international commitments
- Recommend policy interventions, financial mechanisms, and capacity-building initiatives to accelerate the uptake of solar thermal technologies, foster investment opportunities, and create an enabling environment for technology deployment and innovation
- Outline monitoring, evaluation, and reporting mechanisms to track progress, measure impact, and facilitate continuous learning and adaptation in the implementation of the solar thermal roadmap

Through this consultancy service, ICIMOD seeks to leverage the expertise of qualified consultants to support the development of a robust, evidence-based roadmap and implementation plan that will catalyse the transition to a sustainable and resilient energy future powered by solar thermal technologies.

2. Objectives

This request for proposals (RFP) concerns the selection of consultancy services (substantially responsive to requirements) for the preparation of a solar thermal roadmap and implementation plan for Nepal.

3. Scope of the work

Prepare a solar thermal roadmap and implementation plan that is developed in a broad stakeholder process and contains a national roadmap on installation capacity, mechanism, action plan for narrowing the sector gaps, and timelines. The solar thermal roadmap and implementation plan activities should be conducted through comprehensive data collection and consultation with respective stakeholders, including the government and should include but not be limited to the following:

- Establishment of a Solar Thermal Technology Platform (STTP)
- Development of solar thermal vision aligning the net-zero target
- Data collection and analysis
- Stakeholder consultation and validation
- Solar thermal roadmap and implementation plan
- Active participation, including presentation, content development, media and outreach product development, during the dissemination of the solar thermal roadmap and implementation plan, which will be planned next year

4. Work packages (WP)

The preparation of the solar thermal roadmap and implementation plan for Nepal is divided into two work packages:

WP-I: Establishment of a Solar Thermal Technology Platform (STTP)

The main objective of this WP is to establish a solar thermal technology platform, where all the relevant stakeholders from Nepal who play a role in the implementation of a solar thermal roadmap should be involved in this STTP. These include but not limited to decision-makers, companies that are already active in the field of solar thermal energy, power supply companies, financing institutions, training institutions such as vocational training centres and universities as well as standardisation bodies. The task of this STTP is to provide relevant data and to assist and advise in the creation of the solar thermal roadmap and the implementation plan for Nepal.

WP-II: Solar thermal roadmap and implementation plan

This work package aims to draw up a solar thermal roadmap and an implementation plan. The solar thermal roadmap provides the solar systems to be installed in which sectors. In addition, the economic, climate mitigation contributions, ecological, and social benefits of installing solar thermal systems are also to be presented over the period under consideration up to a net-zero year. The implementation plan should clearly define which institutions (politics, financial sector, solar companies, educational institutions, etc.,) must contribute what and when, in order to achieve the goals. This means, for example, clarifying relative sector market opportunities, respective installation capacities, supply chain and capacity requirements, regulation mechanism needed, investment requirements, etc.

5. Detailed tasks and deliverables

WP-I: Establishment of an STTP, the tasks and sub-tasks include but are not limited to:

1. **Establishment of a Solar Thermal Technology Platform:**
    - Organise and facilitate a workshop to establish the STTP, inviting relevant stakeholders from government, industry, academia, and civil society
    - Prepare workshop contents, agenda, and minutes
    - Develop an organisational structure for the STTP in collaboration with key stakeholders
    - Develop terms of reference (ToR), and engagement plans for the members of the STTP

2. **Data collection and analysis:**
    - Collect and analyse relevant data including but not limited to household demographics, relevant sectors (industries, hotel, agriculture, government institutions, etc.,), contribution to potential energy demand, and existing status of solar thermal sector/market ecosystem (regulation, governance, policy, taxation, installation, supply chain, existing programmes, plans, and target, etc.,) in Nepal
    - Project market need of solar thermal targets to different relevant sectors based on the collected data and information
    - Identify the solar thermal sector gaps, including but not limited to policy, incentives, supply chain, taxes, capacity, awareness, job creation, climate mitigation contributions

3. **Development of solar thermal vision aligning net-zero target:**
    - Conduct workshops with STTP members to define targets and goals for solar thermal deployment in Nepal
    - Create a vision document outlining the envisioned achievements and milestones for solar thermal energy penetration
    - Include national priorities, institutions, supply chains, and stakeholders involved in solar thermal
    - All the relevant sectors, including but not limited to agriculture, tourism, industrial should be captured

Deliverables of WP-I:

1. Inception meeting and minutes signed by the STTP members
2. Solar thermal vision document with goals aligning net-zero target
3. Working document on the solar thermal roadmap

WP-II: Solar thermal roadmap and implementation plan, the tasks and sub-tasks include but are not limited to:

1. Developing a Solar thermal roadmap and implementation plan, including the following:
    - A potential study for solar thermal applications for different sectors, including but not limited to domestic hot water systems for low-, middle- and high-income houses, social sector, hospitals, schools, accommodation and hotels, industry, agriculture, government institutions, etc
    - The proposals for national support programmes will be prepared in close cooperation with the key stakeholders based on the identified activities under the implementation

plan. This may include recommendations for policy gaps, regulations, incentives, improving local manufacturing, financial mechanisms, standardisation, etc

- In order to strengthen the national solar thermal sector, support facilitation with the Solar Heating and Cooling Programme of the IEA (International Energy Agency).
- Implementation plan, including timelines, quantities, and necessary measures and resources to reach the goals for different application sectors.
- Conduct stakeholder workshop(s), and validation consultation in Nepal with stakeholders, including STTP members to develop a detailed roadmap and implementation plan.
- Incorporate feedback from stakeholders to refine the draft roadmap and implementation plan.
- Propose potential solar thermal applications for various sectors, training programmes, support schemes, quality improvement measures, and research agenda.
- Present economic, climate mitigation contributions, ecological, and social benefits of solar thermal systems deployment.
- Include national priorities, institutions, supply chains, and stakeholders involved in solar thermal.
- Validation workshop with the key stakeholders on the findings of the report

Deliverables of WP-II:

- Final report on solar thermal roadmap and implementation plan

6. Team

The proposed resources must be part of the project team for the time period specified. The additional resources will be included in the technical proposal with roles, responsibilities, and expertise.

S. No.	Position	Responsibilities	Experience and expertise
1	Project Manager/ Team Leader	- Overall project management, coordination, and oversight of activities. - Liaison with ICIMOD, the energy nodal agency of Nepal, and other key stakeholders.	- More than 20 years of experience in solar thermal projects with a background in mechanical. - Extensive experience in project management/coordination in solar thermal projects. - Conducted at least 10 solar thermal energy projects across various

		- Ensuring timely delivery of outputs and adherence to project timelines. - Provide strategic guidance and lead the project	regions and conducted at least 5 solar thermal roadmap studies - Strong leadership and communication skills
2	Solar thermal Engineer	- Conduct assessments, technical analyses and design related to solar thermal systems - Provide expertise in solar thermal systems	- More than 15 years of experience in solar thermal hot water and space heating systems and sustainable buildings with a background of mechanical engineering - Extensive experience in conducting solar thermal roadmap, technical assessments, and solar thermal system design
3	Researcher	- Data collection - Conduct stakeholder consultations and workshops	- Background in renewable energy engineering, with an experience of 7 years - Experience in conducting stakeholder consultations and workshops

7. Timelines and deliverables (outputs)

The contract period is for one year from the date of signing. The milestone of the contract is given below. The presentation of the wider dissemination of the solar thermal roadmap and implementation plan will be planned in the next year.

Deliverable	Deadline	Payments
Inception report with detailed plan and deliverables	2 weeks from the contract	20%
Solar thermal vision document	12 weeks from the contract	50%
Solar thermal roadmap and implementation plan	24 weeks from the contract	30%

8. Proposal

Technical proposal

The bidder must submit the technical proposal, including the following items, but it is not strictly limited to the content mentioned below:

1. **Technical approach and methodology:** The bidder should explain their understanding of the objectives of the assignment, approach to the services, and detailed methodology to obtain the output.
2. **Work plan:** The bidder should propose the main activities of the proposal, content and duration, milestones, detailed log frame, detailed consultative measures, adoptive measures, baseline indicators, impact indicators measures, targets, and delivery date to achieve the project output. The proposed work plan should be consistent with the technical approach and methodology. Kindly propose a management and operation plan. The bidder must also include the project management approach including quality management and headquarter dedicated team.
3. **Organisation and experts:** The bidder should propose the structure and composition of their team, mentioning their qualifications, roles, responsibilities, skills, and expertise as requested in Section 6. The bidder should list the main discipline of the assignment, the key expert responsible, and the proposed technical and support staff. CVs max of three pages each staff.
4. **Relevant past experience:** The bidder must include the details of similar projects and similar past experience of their organisation and experts in the last five years relevant to this RFP.
5. Consortium is allowed for this RFP. The bidder should be either a company (single legal entity) or a consortium of companies. In the case of a consortium, the bidder consortium shall submit a valid agreement among the members.

Financial proposal

The bidder should provide the financial quote with the breakdown of all the costs and include the tax in the budget (refer to the table provided below):

- Breakdown of the experts needed, number of days required, quantity, rate
- Breakdown of other costs, unit, quantity, rate

9. Reporting

The reporting will be done once in every two weeks with ICIMOD for the progress update. The report format must be discussed and approved by ICIMOD in advance.

10. Pre-qualification criteria

S. No.	Criteria	Supporting documents
1	The bidder shall be a legally registered institution. (In the case of Consortium, all members must adhere to the clause)	
2	The bidder should have an average annual turnover of USD 100,000 or more in the last three financial years. (In the case of Consortium, the lead member must adhere to 60% of the turnover mentioned in the clause)	Audited financial statements for the three years and tax clearance certificate
3	The agency should have successfully completed similar solar thermal studies/ projects at least 5 projects for bilateral/international donors, and at least 2 solar thermal technology roadmaps developed in the last 5 years	Work order along with project details
4	The bidder should not have been blacklisted or barred or any such cases pending for blacklisting/ debarment in any court of law by any State Government, Central Government or any other Public Sector Undertaking or Corporation or any other Autonomous organisation of Central or State Government as on the Bid submission date. (In the case of Consortium/sub-contracting all members must adhere to the clause)	Self-declaration by the bidder

11. Proposal submission

The completed proposal should be submitted through email to consultancy.int@icimod.org by **5 PM (Nepal Standard Time), 06 May 2024**. Two separate files of technical and financial proposals should be submitted.

12. Evaluation

The service provider will be selected on the basis of the highest-ranked technical proposal (60% weightage) and the lowest-cost financial proposal (40% weightage).

The service provider will be selected on the basis of the highest cumulative scores obtained in the technical and financial proposals using the following formula:

- Technical score = Score obtained based on technical proposal (total 100)
- Financial score = Score obtained based on financial proposal (total 100)
- Total score = 60% of technical proposal + 40% of financial proposal

The service provider scoring the maximum score based on the criteria will be awarded. However, the service provider should score at least 70 points in the technical proposal.

13. Ethical consideration

The consultant will be required to take all the necessary actions to handle the collected data responsibly (see ICIMOD Responsible Data Policy) to ensure data privacy, anonymity, and confidentiality.

14. Our commitment to the prevention of sexual harassment

ICIMOD is committed to prevention and redressal of sexual harassment at the workplace and promoting the welfare of children, young people and adults and expects all staff, consultants, volunteers to share this commitment. We will do everything possible to ensure that only those who are suitable to work within our values are selected to work for us.

15. Confidentiality/non-disclosure

All material issued in connection with this ToR shall remain the property of ICIMOD and shall be used only for the purpose of this procurement exercise. All information provided shall be either returned to ICIMOD or securely destroyed by unsuccessful applicants at the conclusion of the procurement exercise.

During the performance of the assignment or at any time after expiry or termination of the Agreement, the consultant shall not disclose to any person or otherwise make use of any confidential information which s/he has obtained or may during this agreement relating to partner organisation/ICIMOD, the respondents or otherwise.

The consultant will be required to sign a non-disclosure / confidentiality agreement as part of their undertaking of this work.

16. Intellectual property, copyright, and ownership of all prepared information

The consultant shall retain all rights to pre-existing (background) intellectual property or materials used by the consultant in the delivery of this study. All arising intellectual property, ideas, materials, processes, or processes formed in contemplation, course of, or as result of this study shall be passed to ICIMOD without restriction.

The consult shall warrant that all arising intellectual property, materials and/or products produced in pursuit of this study shall be original and shall not infringe on any third party's

claim. All technical or business information, in whatever medium or format, originated, collated, or prepared by or for the consultant in contemplation, course of, or as result of this assignment shall be transferred to ICIMOD without restriction on completion and shall not be used by the consultant for any other purpose without express written permission of ICIMOD.

Copyright of all arising documents, data, information, or reports produced by the consultant under this agreement shall belong to ICIMOD and will be passed to ICIMOD without restriction. Such documents, data, information, and reports shall not be used by the consultant for any other purpose other than in conjunction with this assignment, without the express written permission of ICIMOD's Head of Programme Funding.