Madan Bhandari University of Science and Technology Development Board Setopati, Sainbu, Lalitpur Metropolitan City Ward 18 **Notice on Requirement for the service of Consultants and Service Contract** Date of first publication in Kantipur: Asar 22, 2078

The Board intends to hire services of the following consultants:

- 1. Mycology Consultant -1
- 2. Bio-Technology Consultant 1
- 3. Environmental Science Consultant-1
- 4. Nanotechnology Consultant 1
- 5. Mechanical Engineering Consultant 1
- 6. Structural Engineering Consultant -1
- 7. Senior Procurement Consultant 1
- 8. Administrative Management Consultant -1
- 9. Driver -1 (Service Contract)
- 10. Office Helper -1 (Service Contract)

Interested individuals or eligible firms are invited to submit proposals within 5 pm on Srawan 6, 2078 to the email address of the Board – <u>info@mbustb.org</u> or info@mbustb.edu.np. The TORs for the consultants are provided in Annex 1. The proposals should be completed with documentation specified below.

Documents to be submitted

For firms

- 1. Copy of Company registration certificate of the firm
- 2. Copy of VAT/PAN registration certificate of the firm
- 3. Copy of Tax clearance certificate of the firm for the F/Y 2076/77
- 4. Suchi darta (vendor registration) application of the firm (Annex 2)
- 5. CV of the candidate
- 6. Commitment letter from the candidate
- 7. Technical proposal from candidates for consultants
- 8. Financial proposal as per the form provided for driver and office helper (Annex 3)

For individuals

- 1. Copy of VAT/PAN registration certificate
- 2. Copy of Tax clearance certificate for the F/Y 2076/77
- 3. Suchi darta (vendor registration) application (Annex 2)
- 4. CV of the candidate
- 5. Commitment letter from the candidate
- 6. Technical proposal from candidates for consultants
- 7. Financial proposal as per the form provided for driver and office helper (Annex 3)

Madan Bhandari University of Science and Technology Development Board Terms of Reference and Scope of Services Mycology Consultant

Background

The Government has formed Madan Bhandari University of Science and Technology Development Board, 2075 with a view to make preparation for establishment of Madan Bhandari University of Science and Technology (MBUST). This university is being envisioned as a world-class university designed to support Nepal in attaining peoples' aspirations attaining the goal of Prosperous Nepal and Happy Nepali. To meet these aspirations, Nepal needs to attain a double-digit economic growth rate over a sustained period. For attaining a high growth rate, Nepal should be able to upgrade its technology and apply it in the areas of its comparative advantage in terms of natural resource endowment. In this context, MBUST plans to conduct research related to exploration and utilization of indigenous, high-valued natural resources of Nepal for biomedical, technological and agricultural applications. Research in this area requires multidisciplinary approach. Therefore, a team of experts in relevant areas are to be hired. This TOR is for an expert in the area of Mycology and Plant Pathology with expertise in Yarsagumba and Cordyceps fungi, which are among the most sought-after natural resources of Nepal. The consultant is also expected to take responsibility for Organic Agriculture Program under preparation. The consultant will work in close cooperation with a team of consultants working in the area of exploration and utilization of indigenous natural resources of Nepal for biomedical, technological and agricultural applications.

Scope of Work

A) Study on the current status of mushroom farming in Nepal and exploration of collaborative works on mushroom research

- 1. Conventional and Hi-tech farming technologies of common edible mushrooms in Nepal (oyster, white button and Shiitake)
 - a. Field study and review on sources of spawn, cultivation practices in natural climatic condition and controlled, insulated environment
 - b. Source of energy for substrate pasteurization, bioconversion rate of substrate, control of insects and diseases
 - c. Field study on ingredients of substrates used for common edible mushrooms
- 2. Exploration of collaborative works between MBUST and mushroom industries for R & D on edible and medicinal mushrooms

B) Post-harvest preservation and processing of mushrooms

- 1. Strategies for quality control and preservation of highly perishable mushrooms
 - a. Current practice of post-harvest quality control of oyster and white button mushrooms, marketing strategy of fresh mushrooms in open vegetable markets and supermarkets
- 2. Evaluation of solar and electric drying of fresh mushroom for preservation and processing

C) Research on composting of spent mushroom substrate for soil improvement

1. Exploration and field study on biofertilizer development from spent mushroom substrates

D) Planning of trial farm for organic farming and other institutional contributions

- 1. Planning of trial farm at Chitlang: land use plan and land development, Selection of appropriate crops and cultivars for organic vegetable and fruit production,
- 2. Application of green manuring and vermicomposting: an eco-friendly approach for soil improvement
- 3. Methods and strategies of non-chemical control of insects and pests for organic farming
- 4. Rain water harvest and drip irrigation technology for tunnel farming and roof-top farming of vegetable crops
- 5. Contribute to the Establishment of Mushroom and other natural product laboratories and academic and research program development in MBUST

E) Others

- 1. Preparation of Organic Agriculture Program
- 2. Cross support to research activities in other areas.
- 3. Participation in institutional development activities.

Duration of Service

This is an output-based lump sum contract. The consultant shall provide services for 204 person-days commencing from August 10, 2021 and continuing through August 09, 2022 or any other period as may be subsequently agreed by the parties in writing. The contract may be extended as required at the same remuneration rate.

Expected Outputs

A final report containing, among others the following:

- 1. Report on the current status of mushroom farming in Nepal and exploration of collaborative works on mushroom research
- 2. Report on collaborative works between MBUST and mushroom industries for R & D on edible and medicinal mushrooms
- 3. Report on Post-harvest preservation and processing of mushrooms in collaboration with a mechanical engineer.
- 4. Evaluation report on solar and electric drying of fresh mushroom for preservation and processing
- 5. Field study report on scope of biofertilizer development from spent mushroom substrates
- 6. Report on Planning of trial farm at Chitlang including land use plan and land development, Selection of appropriate crops and cultivars for organic vegetable and fruit production, Application of green manuring and vermicomposting, Methods and strategies of non-chemical control of insects and pests for organic farming, Rain water harvest and drip irrigation technology for tunnel farming and roof-top farming of vegetable crops
- 7. Development of Mushroom research laboratory and Yarsagumba research laboratory

Reporting

The consultant shall report to the Chairperson of the Board on a monthly basis on the progress made and outputs.

Payments

Payments shall be made to the consulting firm on output basis as follows:

- 10% of the contract amount after delivery of output 1.
- 10% of the contract amount after delivery of output 2.
- 10% of the contract amount after delivery of output 3.
- 20% of the contract amount after delivery of output 4.
- 10% of the contract amount after delivery of output 5.
- 10% of the contract amount after delivery of output 6.
- 20% of the contract amount after delivery of output 7.
- 5% of the contract amount after delivery of consolidated draft report.
- 5% of the contract amount after delivery of consolidated final report.

Eligibility requirement

The consulting firm or other eligible institution must be registered in the VAT/PAN in the concerned revenue office and must have tax clearance certificate.

Qualifications and experience of Key expert:

- PhD in relevant subjects.
- At least ten years of professional experience.
- Relevant research experience.
- Established researcher as evidenced by publications in peer reviewed journals. At least hindex of 15 from 2016 and at least citations of 3000 all time in Google Scholar.

Selection Criteria

The consultant shall be selected following Selection based on Rule 72 of the Public Procurement Regulations, 2007 on the basis of consultant's qualification, experiences and capability to carry out the assignment.

Madan Bhandari University of Science and Technology Development Board Terms of Reference and Scope of Services Biotechnology Consultant

Background

The Government has formed Madan Bhandari University of Science and Technology Development Board, 2075 with a view to make preparation for establishment of Madan Bhandari University of Science and Technology (MBUST). This university is being envisioned as a world-class university designed to support Nepal in attaining peoples' aspirations attaining the goal of Prosperous Nepal and Happy Nepali. To meet these aspirations, Nepal needs to attain a double-digit economic growth rate over a sustained period. For attaining a high growth rate Nepal should be able to upgrade its technology and apply it in the areas of its comparative advantage in terms of natural resource endowment. One of such areas is biological resources, which is very rich because of the diversity of the nature. In this context, MBUST plants to conduct research related to exploration and utilization of indigenous natural resources of Nepal for biomedical, technological and agricultural application. Research in this area requires multidisciplinary approach. Therefore, a team of experts in relevant areas are to be hired. This TOR is for an expert in the area of biotechnology/natural product with the expertise in the area of isolation, purification and determination of structure of compounds for comprehensive study of naturally occurring organic compounds. The consultant will work in close cooperation with the team engaged in preparation of academic and research programs, and research in various fields aligned to priorities of the university.

Scope of Work

A. Identification of plant resources for utilization of phytochemicals

- 1. Assessment of commercially produced essential oils in Nepal for prototype development of their products.
- 2. Resource identification for functional food development from wild and cultivated plants.
- 3. Assessment of herb cultivation issues and application of natural products research for promotion of trade of medicinal plants.

B. Application of phytochemicals for bio-pesticidal use

- 1. Study on the prospect of improvement of organic mushroom production and preservation with application of plant extracts.
- 2. Design of extraction methodology from natural products and application of nanotechnology for prototype formulation of biopesticides

C. Institutional facility development

- 1. Facilitate commissioning of natural products laboratory facilities.
- 2. Support to development M.Sc. and Ph.D. courses and research projects in biotechnology.
- 3. Cross support to research activities in other areas.
- 4. Participation in institutional development activities.

Duration of Service

This is an output-based lump sum contract. The consultant shall provide services for 168 person-days commencing from August 10, 2021 and continuing through August 9, 2022 or any other period as may be subsequently agreed by the parties in writing. The contract may be extended as required at the existing remuneration rate.

Expected Outputs

A final report containing, among others the following:

- 1. Report on commercially produced essential oils in Nepal with identification of candidate essential oils for prototype development of their products through laboratory analysis.
- 2. Report on natural resource identified for functional food development from wild and cultivated plants particularly from Chitlang and Panchkhal.
- 3. Report on improvement of organic mushroom production and preservation with application of plant extracts.
- 4. Report on design of extraction methodology from natural products and application of nanotechnology for prototype formulation of biopesticides.
- 5. Instrumental commissioning for the establishment of natural products laboratory.
- 6. Report on assessment of herb cultivation issues and application of natural products research for promotion of trade in medicinal plants.
- 7. Design and development of M. Sc. and Ph. D. courses and research projects in biotechnology.

Reporting

The consultant shall report to the Chairperson of the Board on a monthly basis on the progress made and outputs.

Payments

Payments shall be made to the consulting firm on output basis as follows:

- 10% of the contract amount after delivery of output 1.
- 10% of the contract amount after delivery of output 2.
- 20% of the contract amount after delivery of output 3.
- 20% of the contract amount after delivery of output 4.
- 10% of the contract amount after delivery of output 5.
- 10% of the contract amount after delivery of output 6.
- 10% of the contract amount after delivery of outputs 7.
- 5% of the contract amount after delivery of consolidated draft report.
- 5% of the contract amount after delivery of consolidated final report.

Eligibility requirement

The consulting firm or other eligible institution must be registered in the VAT/PAN in the concerned revenue office and must have tax clearance certificate.

Qualifications and experience of Key expert:

- PhD in relevant subjects, preferably post doc.
- At least five years of professional experience.
- Experience of work of study in highly ranked universities. Excellence ranking of at least 3500 in Web Ranking of World Class Universities.
- Relevant research experience.
- Established researcher as evidenced publications in peer reviewed journals. At least h-index of 10 since 2015 and at least citations of 400 all time in Google Scholar.

Selection Criteria

The consultant shall be selected following Selection based on Rule 72 of the Public Procurement Regulations, 2007 on the basis of consultant's qualification, experiences and capability to carry out the assignment.

Madan Bhandari University of Science and Technology Development Board Terms of Reference and Scope of Services Environmental Science Consultant

Background

The Government has formed Madan Bhandari University of Science and Technology Development Board, 2075 with a view to make preparation for the establishment of Madan Bhandari University of Science and Technology (MBUST). This university is being envisioned as a world-class university designed to support Nepal in attaining peoples' aspirations attaining the goal of Prosperous Nepal and Happy Nepali. To meet these aspirations, Nepal needs to attain a double-digit economic growth rate over a sustained period. For attaining a high growth rate Nepal should be able to upgrade its technology and apply it in the areas of its comparative advantage in terms of natural resource endowment. One of such areas is forest resources – timber and non-timber - which are very rich because of the diversity of nature and high forest coverage. In this context, MBUST plans to conduct research and development activities related to utilization of forest resources. Research in this area requires a multidisciplinary approach. Therefore, a team of experts in relevant areas are to be hired. This TOR is for an expert working in the area forest ecology and resources, and utilization of forest resources for production of bio-fertilizers to promote organic agriculture. The consultant will work in close cooperation with the team engaged in preparation of academic and research programs, and research in various fields aligned to priorities of the university.

Scope of Work

- 1. Survey of forest-based industries timber and non-timber. Preparation of inventory of industries, product types, technology employed, market and prospects of technology upgrading and promotion of new products in collaboration of a mechanical engineer and economist.
- 2. Survey of organic fertilizer industry. Preparation of inventory of industries, product types, technology employed, market and prospects of technology upgrading and promotion of new products in collaboration of a mechanical engineer and economist.
- 3. Review on wood waste minimization technique and associated product development from underutilized low-quality wood from forest industries.
- 4. Study of potential for harnessing tree bark extracts for production of wood adhesives and green chemicals.
- 5. Study on the prospects on utilization of wood-based substrate for mushroom cultivation.
- 6. Assessment of soil quality in trial farm along with selection of tree for plantation.
- 7. Prospects of collaboration between academic institution and forest-based industries for research and development.
- 8. Identification of timber species in community forests of Chitlang, Panchkhal and Namobuddha areas suitable for the local climate.
- 9. Support in the development of research laboratory and instrumental facility for forest biomaterials.
- 10. Preparation of research proposals in the area of forest biomaterials.
- 11. Cross support to research activities in other areas.
- 12. Participation in institutional development activities.

Duration of Service

This is an output-based lump sum contract. The consultant shall provide services for 204 person-days commencing from August 10, 2021 and continuing through August 9, 2022 or any other period as may be subsequently agreed by the parties in writing. The contract may be extended as required at the existing remuneration rate.

Expected Outputs

A final report containing, among others the following:

- 1. Survey of forest-based industries non-timber and timber.
- 2. Survey of organic fertilizer industries.
- 3. Identification of timber species in community forests of Chitlang, Panchkhal and Namoduddha areas suitable for the local climate.
- 4. Review on wood waste minimization technique and associated product development from under-utilized low-quality wood from forest industries.
- 5. Study on possibilities and challenges for harnessing tree bark extracts for wood adhesives and green chemicals
- 6. Study on utilization prospects of wood-based substrate for mushroom cultivation.

Reporting

The consultant shall report to the Chairperson of the Board monthly on the progress made and outputs

Payments

Payments shall be made to the consulting firm on output basis as follows:

- 15% of the contract amount after delivery of output 1.
- 15% of the contract amount after delivery of output 2.
- 15% of the contract amount after delivery of output 3.
- 15% of the contract amount after delivery of output 4.
- 15% of the contract amount after delivery of output 5.
- 15% of the contract amount after delivery of output 6.
- 5% of the contract amount after delivery of consolidated draft report.
- 5% of the contract amount after delivery of consolidated final report.

Eligibility requirement

The consulting firm or other eligible institution must be registered in the VAT/PAN in the concerned revenue office and must have a tax clearance certificate.

Qualifications and experience of Key expert:

- PhD in relevant subjects, preferably post doc.
- At least two years of professional experience.
- Experience of work or study in highly ranked universities. Excellence ranking of at least 3500 in Web Ranking of World Class Universities.
- Relevant research experience.
- At least h-index of 3 since 2016 and at least citations of 60 all time in Google Scholar.

Selection Criteria

The consultant shall be selected following Selection based on Rule 72 of the Public Procurement Regulations, 2007 based on consultant's qualification, experiences and capability to carry out the assignment.

Madan Bhandari University of Science and Technology Development Board Terms of Reference and Scope of Services Nanotechnology Consultant

Background

The Government has formed Madan Bhandari University of Science and Technology Development Board, 2075 with a view to make preparation for establishment of Madan Bhandari University of Science and Technology (MBUST). This university is being envisioned as a world-class university designed to support Nepal in attaining peoples' aspirations attaining the goal of Prosperous Nepal and Happy Nepali. To meet these aspirations, Nepal needs to attain a double-digit economic growth rate over a sustained period. For attaining a high growth rate Nepal should be able to upgrade its technology and apply it in the areas of its comparative advantage in terms of natural resource endowment. One of such areas is natural resources, which is very rich because of the diversity of the nature. In this context, MBUST plants to conduct research related to exploration and utilization of indigenous natural resources of Nepal for biomedical, technological and agricultural application. Research in this area requires multidisciplinary approach. Therefore, a team of experts in relevant areas are to be hired. This TOR is for an expert in the area of nanotechnology. The consultant will work in close cooperation with a team of consultants working in the area of exploration and utilization of indigenous natural resources of Nepal for biomedical, technological and agricultural application.

Scope of Work

- 1. Design experiment related to natural dye synthesis using rhododendron for optical and biomedical applications
- 2. Review of current community practices in synthesis and application of natural dyes in Nepal through literature survey and field study
- 3. Design experiment related to nano formulation of spent mushroom substrate for application in organic fertilizers
- 4. Design experiment for synthesis of nanomaterials using forest wastes for utilization as micronutrients in organic fertilizers
- 5. Field study and review of current industrial practices of bio-fertilizer synthesis in Nepal and highlight the importance of nanotechnology research in the commercial biofertilizer products
- 6. Assist in developing research laboratories and instrument facilities in Chitlang
- 7. Design chemical laboratory waste treatment and recycling plan for the MBUST
- 8. Initiate collaborative research plan with forest bio-material science and engineering group in the field of cellulose nanomaterials and nanofibers synthesis and application
- 9. Support in the design of Masters and PhD courses and research programs in MBUST for research on nanotechnology, nanocomposites and natural products
- 10. Cross support to research activities in other areas.
- 11. Participation in institutional development activities.

Duration of Service

This is an output-based lump sum contract. The consultant shall provide services for 204 person-days commencing from August 10, 2021 and continuing through August 9, 2022 or any other period as may be subsequently agreed by the parties in writing. The contract may be extended as required at the existing remuneration rate.

Expected Outputs

A final report containing, among others the following:

- 1. Report on design of experiment related to natural dye synthesis using rhododendron for optical and biomedical applications
- 2. Report on review of current community practices in synthesis and application of natural dyes in Nepal through literature survey and field study
- 3. Report on design of experiment related to nano formulation of spent mushroom substrate for application in organic fertilizers
- 4. Report on design of experiment for synthesis of nanomaterials using forest wastes for utilization as micronutrients in organic fertilizers
- 5. Report on field study and review of current industrial practices of bio-fertilizer synthesis in Nepal with highlights on the importance of nanotechnology research in the commercial biofertilizer products
- 6. Report on design of chemical laboratory waste treatment and recycling plan for the MBUST
- 7. Collaborative research proposal with forest bio-material science and engineering group in the field of cellulose nanomaterials and nanofibers synthesis and application.

Reporting

The consultant shall report to the Chairperson of the Board on a monthly basis on the progress made and outputs.

Payments

Payments shall be made to the consulting firm on output basis as follows:

- 10% of the contract amount after delivery of outputs 1.
- 10% of the contract amount after delivery of output 2.
- 15% of the contract amount after delivery of output 3.
- 15% of the contract amount after delivery of output 4.
- 15% of the contract amount after delivery of output 5.
- 15% of the contract amount after delivery of outputs 6.
- 10% of the contract amount after delivery of outputs 7.
- 5% of the contract amount after delivery of consolidated draft report.
- 5% of the contract amount after delivery of consolidated final report.

Eligibility requirement

The consulting firm or other eligible institution must be registered in the VAT/PAN in the concerned revenue office and must have tax clearance certificate.

Qualifications and experience of Key expert:

- PhD in relevant subjects, preferably post doc.
- More than one year of professional experience in relevant area.
- Experience of work or study in highly ranked universities. Excellence ranking of at least 3500 in Web Ranking of World Class Universities.
- Relevant research experience.
- Established researcher as evidenced publications in peer reviewed journals. At least h-index of 8 from 2016 and at least citations of 700 all time in Google Scholar.

Selection Criteria

The consultant shall be selected following Selection based on Rule 72 of the Public Procurement Regulations, 2007 on the basis of consultant's qualification, experiences and capability to carry out the assignment.

Madan Bhandari University of Science and Technology Development Board Terms of Reference and Scope of Services Mechanical Engineering Consultant

Background

The Government has formed Madan Bhandari University of Science and Technology Development Board, 2075 with a view to make preparation for establishment of Madan Bhandari University of Science and Technology (MBUST). This university is being envisioned as a world-class university designed to support Nepal in attaining peoples' aspirations for Prosperous Nepal and Happy Nepali. To meet these aspirations, Nepal needs to attain a double-digit economic growth rate over a sustained period. For attaining a high growth rate Nepal should be able to upgrade its technology and apply it in the areas of its comparative advantage in terms of natural resource endowment. MBUST has prepared PG programs in Artificial Intelligence, Organic Agriculture and Forest Biomaterials. It aims at aligning research in these areas with the needs for utilization of the natural resource endowment, among other. It also aims at getting substantially engaged in the area of digital economy/technology. Additive manufacturing is one of the areas of interest within this field.

Additive manufacturing is a new technology, which has created opportunities for small manufacturing. To capitalize on these opportunities there is a need for exploring the possible areas for its application in Nepal. This TOR is for a consultant who has a mechanical engineering degree and expertise in additive manufacturing.

Nepal is rich in forest resources. But it has been relying on imported timber and timber products. The university aims at facilitating more efficient and sustainable utilization of forest resources with a view to reduce its dependence of import of timber and timber products. To meet this goal there is a need to an in-depth knowledge of the status of timber industry in Nepal, especially focusing on technological aspects. The Consultant should be able to conduct a technological assessment of the timber industry.

Organic agricultures group in the university is planning to engage in research related to preservation, storage, packaging and transportation of mushroom and other agriculture products, and drip irrigation. The consultant is expected to support the group in these areas.

Scope of Work

- 1. Literature review on various additive manufacturing technologies and their application.
- 2. Market survey to find out the prospects of employing additive manufacturing in Nepal.
- 3. To identify facilities required for additive manufacturing, and assess technical and financial feasibility for additive manufacturing. The consultant will be assisted by a marketing expert for financial feasibility study.
- 4. To build a basic additive manufacturing facility at the university.
- 5. Design and fabrication of few items using fused deposition model.
- 6. To assist the forest resources consultant in the survey of forest-based industries timber and non-timber. Preparation of inventory of industries, product types, technology employed, market and prospects of technology upgrading and promotion of new products.
- 7. To assist in the preparation of inventory of organic fertilizer industries, product types, technology employed, market and prospects of technology upgrading and promotion of new products.

- 8. Mechanical characterization of wood from Chitlang and Kavre community forestry for the purpose of investigating link between anatomical features and strength.
- 9. Assist in commissioning of forest biomaterials laboratory.
- 10. Assist the mycology expert in improvement of post-harvest and processing technology of mushrooms.
- 11. Develop national/international networking and collaboration.
- 12. Cross support to research activities in other areas.
- 13. Participation in institutional development activities.

Duration of Service

This is an output-based lump sum contract. The consultant shall provide services for 168 person-days commencing from August 10, 2021 and continuing through August 9, 2022 or any other period as may be subsequently agreed by the parties in writing. The contract may be extended as required at the existing remuneration rate.

Expected Outputs

A final report containing, among others the following:

- 1. Literature review on various additive manufacturing technologies and their application.
- 2. Market survey to find out the prospects of employing additive manufacturing in Nepal, including identification of possible research areas in additive manufacturing, which could lead to quick and tangible results.
- 3. Identification of facilities required for additive manufacturing, and assess technical and financial feasibility for additive manufacturing. The consultant will be assisted by a marketing expert for financial feasibility study.
- 4. Commissioning of a basic additive manufacturing facility at the university.
- 5. Design and fabrication of few items using fused deposition model.
- 6. To assist the forest resources consultant in the survey of forest-based industries timber and non-timber. Preparation of inventory of industries, product types, technology employed, market and prospects of technology upgrading and promotion of new products.
- 7. To assist in the preparation of inventory of organic fertilizer industries, product types, technology employed, market and prospects of technology upgrading and promotion of new products.
- 8. Report on mechanical characterization of wood from Chitlang and Kavre community forestry.

Reporting

The consultant shall report to the Chairperson of the Board on a monthly basis on the progress made and outputs.

Payments

Payments shall be made to the consulting firm on output basis as follows:

- 10% of the contract amount after delivery of output 1.
- 15% of the contract amount after delivery of output 2.
- 10% of the contract amount after delivery of output 3.
- 10% of the contract amount after delivery of output 4.
- 15% of the contract amount after delivery of output 5.
- 10% of the contract amount after delivery of output 6.
- 10% of the contract amount after delivery of output 7.

- 10% of the contract amount after delivery of output 8.
- 5% of the contract amount after delivery draft report.
- 5% of the contract amount after delivery final report.

Eligibility requirement

The consulting firm or other eligible institution must be registered in the VAT/PAN in the concerned revenue office and must have tax clearance certificate.

Qualifications and experience of the consultant:

- PhD in mechanical engineering.
- At least one year of professional experience.
- Experience of work of study in highly ranked universities. Excellence ranking of at least 3500 in Web Ranking of World Class Universities.
- Willingness to conduct research in the broad areas as defined in the TOR.
- Established researcher as evidenced by publications in peer reviewed journals. At least citations of 60 all time in Google Scholar.

Selection Criteria

The consultant shall be selected following Selection based on Rule 72 of the Public Procurement Regulations, 2007 on the basis of consultant's qualification, experiences and capability to carry out the assignment.

Terms of Reference and Scope of Services Structural Engineering Consultant

Background

The Government has formed Madan Bhandari University of Science and Technology Infrastructure Development Board with a view to make preparation for establishment of Madan Bhandari University of Science and Technology (MBUST). The Government intends to establish the university within two years as announced in its Policy and Program for FY2076/77. This university is being envisioned as a world-class university designed to support Nepal in attaining peoples' aspirations attaining the goal of Prosperous Nepal and Happy Nepali.

The university has adopted a strategy for aligning its academic and research programs with areas of the economy, which have significant potential for contribution to the economic growth. Guided by this policy the university has been focusing on the following research areas: artificial intelligence, organic agriculture, forest biomaterials, tourism infrastructure, hill transportation planning, natural products, among others. The university wishes to explore research topics related to hill housing materials and technology including earthquake resistance buildings. Services of a Structural Engineering consultant is required for the purpose of identifying research topics related to hill housing materials and technology including earthquake resistance buildings, among others.

Scope of Work

- 1. Review deficiencies in hill buildings using local materials with respect to comfort, earthquake safety, affordability and environmental sustainability in Nepal.
- 2. Identify research topics pertaining to hill building materials, design and technology taking into account safety, comfort, affordability and environmental sustainability.
- 3. Develop three research proposals related to identified topics.
- 4. Develop laboratories needed for the above research.
- 5. Assess the scope for increasing hill buildings using local materials using the expected outcomes from the identified research areas.
- 6. Formulate tentative areas/topics for master's and PhD research.
- 7. Formulate academic programs.
- 8. Establish partnership with academicians in Nepal and abroad for the above work.
- 9. Identify sources of funding for research.
- 10. Assist in on-going physical facility development activities.
- 11. Participate in institutional development by participating in a variety of activities.
- 12. Cross support to research activities in other areas.

Duration of Service

The supervision consultant shall provide his/her services on intermittent basis over the period 204 days commencing from August 30, 2021 and continuing through August 29, 2022 or any other period as may be subsequently agreed by the parties in writing. The contract may be extended as required at the same remuneration rate.

Expected Outputs

1. Review deficiencies in hill buildings using local materials with respect to comfort, earthquake safety, affordability and environmental sustainability in Nepal.

- 2. Identification of research topics pertaining to hill building materials, design and technology taking into account safety, comfort, affordability and environmental sustainability.
- 3. Formulation of three research proposals related to identified topics.
- 4. Formulation of laboratory requirements space, equipment and services for the above research.
- 5. Assessment of the scope for increasing hill buildings using local materials using the expected outcomes from the identified research areas.
- 6. Formulation tentative areas/topics for master's and PhD research.
- 7. Formulation Masters and PhD programs.

Reporting

The consulting firm shall report to the Chairperson of the Board.

Payments

Payments shall be made to the consulting firm on output basis as follows:

- 20% of the contract amount after submission of the report on output 1 satisfactory to the Board.
- 10% of the contract amount after submission of the report on output 1 satisfactory to the Board.
- 15% of the contract amount after submission of the report on output 3 satisfactory to the Board.
- 15% of the contract amount after submission of the report on output 4 satisfactory to the Board.
- 10% of the contract amount after submission of the report on output 5 satisfactory to the Board.
- 10% of the contract amount after submission of the report on output 6 satisfactory to the Board.
- 10% of the contract amount after submission of the report on output 7 satisfactory to the Board.
- 5% of the contract amount after delivery of consolidated draft report.
- 5% of the contract amount after delivery of consolidated final report.

Qualifications

- PhD degree in structural engineering or equivalent.
- At least 1 year of work experience.
- Research credentials as evidenced publications in peer reviewed journals. At least citations of 20 all time in Google Scholar.

Selection Criteria

The consultant shall be selected following Selection based on Direct Procurement Method set forth in Public Procurement Act, 2007 and Public Procurement Regulations, 2007 on the basis of consultant's qualification, experiences and capability to carry out the assignment.

Madan Bhandari University of Science and Technology Development Board, Setopati, Lalitpur Terms of Reference and Scope of Services for Senior Procurement Consultant

Background

Madan Bhandari University of Science and Technology Development Board (further referred to as the Board), 2075 has been formed to carry out preparatory work for establishment of the university. Main functions of the Board, among others, include acquisition of land for the purpose of building physical infrastructure, conducting environment impact assessment, identification of economic sectors as focus areas for the university and defining research areas/ themes aligned to identified focus areas, identification of research centers and academic programs for the university, preparation of bid documents for works, goods and services and execute corresponding contracts, and organize seminars, workshops and lectures.

Objectives

The purpose of this consulting service is to assist MUSTDB in providing expert advice on procurement of goods, services and works for ensuring adoption of proper procurement procedures with economy, efficiency and transparency as well as accelerate procurement practice/ processes.

Scope of Work

- Prepare and update periodically the project procurement plan;
- Provide expert advice on procurement of goods, services and works;
- Prepare necessary procurement documents, bid invitation notice required for the procurement of goods, works, and consulting services including drafting and issuing tender documents
- Provide support on the pre-qualification, short-listing, evaluation of bids/proposals;
- Support on the award of contract and
- Assist in negotiating with bidders, when required, and preparing contract documents
- Provides periodic reports on activities to the chairperson.

Duration of service

The Consultant shall provide 800 hours input on as and when required basis over the period commencing from August 17, 2021 and continuing through August 16, 2023 or any other period as may be subsequently agreed by the parties in writing. The contract may be extended as required at the original remuneration rate, if required.

Expected Outputs

Timely completion of proposed procurement as per annual program of Madan Bhandari University of Science and Technology Development Board.

Reporting

The consultant shall report to the Chairman, Madan Bhandari University of Science and Technology Development Board.

Deliverables

Monthly reporting of tasks accomplished.

Payments

Payment shall be made on a monthly basis based on the time sheet as well as progress report.

Qualifications of consultants

- Should have at least Master's degree in Economics/Engineering/Business Management/Administration/Law/ Sociology/ Business Administration or in relevant subjects.
- Should possess at least ten years of demonstrated professional experience in the field of public procurement in Government/ Public Enterprises/ NGO/INGO / World bank/ Asian Development Bank / UN agencies
- Should have at least 7 days training in procurement management.
- Should be fully conversant with the Government of Nepal procurement policies, guideline and procedures evidenced by her/his involvement in procurement functions,
- Extensive experience of procurement work in donor and government supported projects.
- Experience in government offices preferably at the level of division chief.
- Excellent track record of on-the-job performance.
- Good Knowledge of Computer/ IT skills as demonstrated by capability to work on line. Ability to support online at a short notice.
- Good interpersonal skills.

Selection Criteria:

The consultant shall be selected following Selection based on Public Procurement Act, 2007 and Public Procurement Regulations, 2007 on the basis of consultant's qualification, experiences and capability to carry out the assignment.

Madan Bhandari University of Science and Technology Development Board Terms of Reference and Scope of Services of Administrative Management Consultant

Background

The Government has formed Madan Bhandari University of Science and Technology Development Board, 2075 with a view to make preparation for establishment of Madan Bhandari University of Science and Technology (MBUST). The Government announced about its plan to establish the university within two years in its Policy and Program for FY2076/77. This university is being envisioned as a world-class university designed to support Nepal in attaining peoples' aspirations for attaining the goal of Prosperous Nepal and Happy Nepali. To support such an important mission a new type of institution would need to be developed. The Board will leave no stone unturned to build an institution dedicated to the mission by evaluating its staff solely based on their competence and keeping it free from corruption, nepotism favoritism and discrimination based on gender, religion, ethnicity and political preferences. The Board will strive to build absolute accountability and would not tolerate corruption.

The office is planning to hire an administrative management consultant. As the Board is a small organization the consultant will have to be able to execute multiple functions including financial management.

Scope of Work

- To manage procurement of goods, works and services under the guidance of the procurement specialist.
- To scientifically manage office documentation so that they are secured and easily retrievable.
- To manage office inventory.
- To establish and enforce office procedures and policies.
- To oversee office website.
- To manage communication within the office and outside.
- To assist the Administration Chief as required.
- To assist functions of the accounts section.
- Other tasks as assigned by the Chairperson.

Reporting

The consultant shall report to the Chairperson of the Board.

Duration of Service

The Consultant shall be hired for about 600 working days from August 15 2021 to August 14, 2023 or any other period as agreed. The contract may be extended if required at the existing remuneration rate.

Deliverables

Monthly reporting of tasks accomplished.

Payments

Payment shall be made on a monthly basis.

Qualifications of consultants

- Bachelors of business studies or relevant subjects.
- At least five years of professional experience.
- Served at the position Administrative Officer.
- Served as finance officer or has experience of financial management.
- Experience of procurement.
- Excellent track record of on-the-job performance.
- Superior IT skills including Devanagari word processing.
- Good interpersonal skills.

Selection Criteria

The consultant shall be selected following Selection based on Direct Procurement Method set forth in Public Procurement Act, 2007 and Public Procurement Regulations, 2007 on the basis of consultant's qualification, experiences and capability to carry out the assignment.

Madan Bhandari University of Science and Technology Development Board Terms of Reference of Driver Contract ID No: MBUSTDB/NCS/02/2078/79

Background

The Government has formed Madan Bhandari University of Science and Technology Development Board, 2075 with a view to make preparation for establishment of Madan Bhandari University of Science and Technology (MBUST). The Government announced about its plan to establish the university within two years in its Policy and Program for FY2076/77. This university is being envisioned as a world-class university designed to support Nepal in attaining peoples' aspirations attaining the goal of Prosperous Nepal and Happy Nepali. To support such an important mission a new type of institution would need to be developed. The Board will leave no stone unturned to build an institution dedicated to the mission, valuing its staff solely based on their competence, free from corruption, nepotism favoritism and discrimination based on gender, religion, ethnicity and political preferences.

The Board is a small organization and it intends to operate with minimum personnel. Hence the driver is expected to able to assist in administrative work, and maintenance and operation of IT and other equipment. The driver is to be hired on service contract on daily wage basis without overtime or other allowances.

Scope of Work

- To drive office vehicles safely and be punctual.
- To keep vehicles, clean and in running condition through day-to-day maintenance.
- To ensure cost savings by maintaining vehicle log including fuel consumption log.
- To ensure availability of all vehicle related documents, first aid kit and spare parts.
- To deliver and collect of office documents including payment of bills, taxes and perform bank related work.
- To pay meeting allowances including through electronic means.
- To scan, photocopy and bind documents, assemble folders, assist in meetings including by providing tea and lunch.
- To operate and carry out basic maintenance of office equipment such as computers, photocopiers, Video conferencing equipment etc.
- To maintain uninterrupted power supply.
- To assist in processing of visa of visitors.
- To assist in receiving, sorting and dispatching office documents.
- To assist in store related functions.

Reporting

The driver shall report to the Chairperson of the Board.

Duration of Service

The driver shall be hired for about 600 days during the period of October 1, 2021 to September 30, 2023. The contract may be extended if required at the existing contract rate.

Payments

Payment shall be made on a monthly basis.

Qualifications of the driver

- Driving license.
- At least 15 years of experience of driving including driving office vehicles.
- Experience of work as administrative/office assistant of over five years.
- Ability to communicate in English.
- Computer literacy.

Selection Criteria

The consultant shall be selected following Selection based on Direct Procurement Method set forth in Public Procurement Act, 2007 and Public Procurement Regulations, 2007 on the basis of consultant's qualification, experiences and capability to carry out the assignment.

भण्डारी विज्ञान तथा प्रविधि विश्वविद्यालय पूर्वाधार विकास समिति, सेतोपाटी, सैंवु ललितपुर कार्यालय सहयोगीको कार्यक्षेत्रगत शर्तहरु र कार्य विवरण

Contract ID No.: MBUSTDB/NCS/03/2078/79

पृष्ठभूमिः

नेपाल सरकारले चितवनको थाहा नगरपालिका, चित्लाङ्गमा मदन भण्डारी विज्ञान तथा प्रविधि विश्वविद्यालय स्थापनाको लागि प्रारम्भिक कार्यहरु गर्न मदन भण्डारी विज्ञान तथा प्रविधि विश्वविद्यालय विकास समितिको स्थापना भएको छ । यसै सन्दर्भमा नेपाल सरकारले आ.व. २०<u>७६१२०७७</u> को नीति तथा कार्यक्रममा दुई बर्ष भित्र सो विश्वविद्यालय स्थापना गर्ने घोषणा गरेको छ । सो विश्वविद्यालय स्थापनाबाट समृध्द नेपाल सुखी नेपालीको आकांक्षा पूरा गर्न महत्वपूर्ण भूमिका रहने विश्वास गरिएकोछ ।

मदन भण्डारी विज्ञान तथा प्रविधि विश्वविद्यालय विकास समितिको कार्यालयको दैनिक कार्यमा सघाउ पुऱ्याउने हेतुले कार्यालय सहयोगीको आबश्यकता महसुश भएकोले सेवा करारमा नियुक्ति गर्न यो कार्यक्षेत्रगत शर्तहरु तयार गरिएको छ ।

उदेश्यः

यस सेवाको उदेश्य यस विकास समितिको कार्यालयको दैनिक कार्यमा सघाउ प्ऱ्याउने हो ।

कार्यक्षेत्रहरु

- कार्यालय समय भन्दा आढा घण्टा अगाडि कार्यालय खोल्ने र कार्यालय समय पछि कार्यालय बन्द गर्ने ।
- कार्यालयको सम्पूर्ण भवन (शौचालय लगायत) र कम्पाउण्डको सरसफाई गर्ने र बगैंचाको स्याहार तथा सम्हार गर्ने ।
- कार्यालयको चिठी पत्र दर्ता र चलानी, स्टोर सम्बन्धी काम र अन्य प्रशासनिक काममा सहयोग गर्ने ।
- कम्प्युटरमा रिकर्ड राख्ने ।
- कार्यालयको सरसामान र कागजपत्र व्यवस्थित रुपमा राख्ने ।
- कार्यालयमा उपलब्ध चिया, पानी तथा नास्ता कर्मचारी तथा आगन्तुकका लागि व्यवस्था गर्ने ।
- कार्यालयका अन्य कर्मचारीको अनुरोध बमोजिम कार्यालयको अन्य कार्यमा सहयोग पुऱ्याउने ।
- कार्यालयको सामान ओसार पसार गर्ने ।

कार्य प्रारम्भ मिति, समय र अवधि

सेवा प्रदायकले असोज ०१, २०७८ देखि श्रभाद्र ३१, २०८० को अवधि भित्र करीब ६०० कार्य दिन काम गर्न् पर्नेछ ।

सेवा प्रदायकका दायित्वहरु

कार्यक्षेत्रगत शर्त र कार्यविवरण अनुसार दोस्रो पक्षले स्तरीय र पेशागत मापदण्ड, गुणस्तर, छिटो छरितो तथा कार्यालय र कार्यालयको सेवाग्राहीहरुप्रति उत्तरदायी र जवाफदेहीपूर्ण भई सम्भौता बमोजिम कार्य सम्पादन गर्न् पर्नेछ ।

सेवा प्रदायकले कार्यालय सहयोगीको सेवा प्रदान गर्दा श्रम, रोजगार तथा सामाजिक सुरक्षा मन्त्रालयको मिति २०७५ असोज १९ गतेको नेपाल राजपत्रमा प्रकाशित भए बमोजिमका शर्तहरु पालना गर्नु पर्नेछ । सेवा प्रदायकले करारमा तोकिए बमोजिमको पारिश्रमिक सुविधा कार्यालय सहयोगीलाई अनिवार्य रुपमा दिनु पर्नेछ ।

छनौट विधि

सार्वजनिक खरिद ऐन, २०६३ र सार्वजनिक खरिद नियमावली, २०६४ बमोजिम योग्यता, अनुभव र कार्यक्षमताको आधारमा सेवा प्रदायकको नियुक्ति गरिनेछ ।

Annex 2

मिति:

श्री मदन भण्डारी विज्ञान तथा प्रविधि विश्वविद्यालय पूर्वाधार निर्माण विकास समिति पुल्चोक, ललितपुर

विषयः मौजुदा सूचीमा दर्ता गरी पाँउ ।

महोदय,

सार्वजनिक खरिद नियमावली, २०६४ को नियम १८ को उपनियम (१) बमोजिम तपसिलमा उल्लिखित विवरण अनुसारको पुष्ट्याँई गर्ने कागजात संलग्न गरी मौजुदा सूचीमा दर्ता हुन यो निबेदन पेश गरेको छु।

तपसिलः

 मौजुदा सूचीको लागि निबेदन दिने व्यक्ति, संस्था, आपूर्तिकर्ता, निर्माण व्यवसायी, परामर्शदाता वा सेवा प्रदायकको विवरण: 				
(क) नाम:	(ख) ठेगाना:			
(ग) पत्राचार गर्ने ठेगाना:	(घ) मुख्य व्यक्तिको नाम:			
(ङ) टेलिफोन नं.	(च) मोवाईल नं.			
२. मौजुदा सूचीमा दर्ता हुनको लागि निम्न बमोजिमको प्रमाणपत्र संलग्न गर्नु होला ।				
(क) संस्था वा फर्म दर्ताको प्रमाणपत्र छ 📃 छैन 📃				
(ख) नविकरण गरिएको छ				
(ग) मूल्य अभिबृद्धि कर वा स्थायी लेखा नम्बरदर्ताको प्रमाणपत्र छ 📝 छैन 🗌				
(घ) कर चुक्ताको प्रमाणपत्र छ				
	। निबेदन दिने हो, सो कामको लागि ईजाजतपत्र			
आबश्यक पर्ने भएमा सोको प्रतिलिपि छ	छैन			

३. सार्वजनिक निकायबाट हुने खरिदको लागि दर्ता हुन चाहेको खरिदको प्रकृतिको विवरण:						
(क) मालसामान आपूर्तिः मालसामानको प्रकृति समेत उल्लेख गर्ने		(ख) निम	र्गण कार्य			
(ग) परामर्श सेवाः परामर्श सेवाको प्रकृति समेत उल्लेख गर्ने		(घ) अन्य से (अन्य सेवाव समेत उल्लेख	ने प्रकृति			
निबेदन दिएको मितिः फर्मक		[:	निबेदकको न हस्ताक्षरः	ाम:		

	Determination of rate for driver	
	१२ महिनाको लागि	
	मासिक खर्च	
	मासिक तलब	२३,४७८
	मासिक महंगी भत्ता	२,०००
6+7	जम्मा	२५४७८
	मासिक सञ्चय कोषको लागि अनूदान १० प्रतिशत	२३४८
	मासिक उपदानको लागि अनुदान ८.३३ प्रतिशत	१९४६
	डाईभर बाहेक प्रशासनिक काम वापत थप पारिश्रमिक	६०००
8+9+10+11	जम्मा मासिक खर्च	३४७८२
	१२ महिनाको लागि खर्च	
	३० दिन घर विदा दिंदा सट्टा डाईभरको खर्च	२३४७८
	१२ दिन भैपरि आउने विदा दिंदा सट्टा डाईभरको खर्च	९३९१।२
	१२ दिन बिरामी विदा दिंदा सट्टा डाईभरको खर्च	९३९१।२
	दशैं पेश्कि	२३४७८
	अन्य विदा (प्रशूति, किरिया) वापत सम्भाव्य खर्च ?	
	दुर्घटना र स्वास्थ विमा वापत खर्च ?	
	जम्मा खर्च १२ महिनाको	४ ६३४७२
	सालाखाला मासिक खर्च	<u> </u>
	6	४१४१६
	१२ महिनाको लागि कूल खर्च	४९६९९५
	ओभरहेड ?	
	ओभरहेड सहितको जम्मा खर्च १२ महिनाको	४९६९९४
	भ्याट	६४६०९
	ओभरहेड र भ्याट सहितको जम्मा खर्च १२ महिनाको	५६१६०४
	ओभरहेड र भ्याट सहितको जम्मा मासिक खर्च	४६८००।३४
		१२ महिनाको लागि मासिक खर्च मासिक तलव मासिक नलव मासिक नलव मासिक महंगी भत्ता 6+7 जम्मा मासिक सञ्चय कोषको लागि अनुदान १० प्रतिशत मासिक उपदानको लागि अनुदान ५० प्रतिशत मासिक उपदानको लागि अनुदान ५० प्रतिशत मासिक उपदानको लागि अनुदान ५० प्रतिशत भासिक उपदानको लागि अनुदान ५० प्रतिशत अम्मा मासिक खर्च १२ महिनाको लागि खर्च ३० दिन घर विदा दिंदा सटटा डाईभरको खर्च १२ दिन बिरामी विदा दिंदा सटटा डाईभरको खर्च १२ दिन विरामी विदा दिंदा सटटा डाईभरको खर्च १२ दिन विरामी विदा दिंदा सटटा डाईभरको खर्च अन्य विदा (प्रशूति, किरिया) वापत सम्भाव्य खर्च ? दुर्घटना र स्वास्थ विमा वापत खर्च ? जम्मा खर्च १२ महिनाको सालाखाला मासिक खर्च १२ महिनाको लागि कुल खर्च ३२ महिनाको लागि कुल खर्च ३२ महिनाको जम्मा खर्च १२ महिनाको भार खे २ भ्याट सहितको जम्मा खर्च १२ महिनाको

Format for financial proposal driver

? संकेत गरिएको कोठा अगाडिको कोठा अनिवार्य रुपमा भर्नु पर्नेछ ।

प्रति दिन महिनाको २४ दिनको दरले

9920.09

1 2 3			
3			
		१२ महिनाको लागि	
4			
5		मासिक खर्च	
6		मासिक तलब	१९४८०
7		मासिक महंगी भत्ता	3000
8	6+7	जम्मा	२२४८०
9		मासिक सञ्चय कोषको लागि अनूदान १० प्रतिशत	१९४८
10		मासिक उपदानको लागि अनुदान ८.३३ प्रतिशत	१६२२।६८४
11		कार्यालय सहायक बाहेक अन्य काम गरे वापत थप पारिश्रमिक	२०००
12	8+9+10+11	जम्मा मासिक खर्च	२८०४०१६८४
13			
14		१२ महिनाको लागि खर्च	
		३० दिन घर विदा दिंदा सट्टा सहयोगीको खर्च	१९४८०
15		१२ दिन भैपरि आउने विदा दिंदा सट्टा सहयोगीको खर्च	७७९२
16		१२ दिन बिरामी विदा दिंदा सट्टा सहयोगीको खर्च	७७९२
17		दशैं पेश्कि	१९४८०
18		अन्य विदा (प्रशूति, किरिया) वापत सम्भाव्य खर्च ?	
19		दुर्घटना र स्वास्थ विमा वापत खर्च ?	
20		जम्मा खर्च १२ महिनाको	४४४४४
21		मासिक खर्च	४४४४।३३३३
22		कूल मासिक खर्च	३२४९६।०१७
23		<u> </u>	રઙ૧૧ ૪૨ા૨૧
24		ओभरहेड ?	
25		जम्मा खर्च १२ महिनाको	
26		भ्याट	४०८४९७८७
27		ओभरहेड र भ्याट सहितको जम्मा खर्च १२ महिनाको	४४२००२
		ओभरहेड र भ्याट सहितको जम्मा मासिक खर्च	३६८३३।५
		प्रति दिन महिनाको २४ दिनको दरले	ঀৼ৾৾ৼৼ৾৾৽

? संकेत गरिएको कोठा अगाडिको कोठा अनिवार्य रुपमा भर्नु पर्नेछ ।