

ANNEX I

DESCRIPTION OF THE TECHNICAL ASSISTANCE AND WORK PLAN

I. Objective and Expected Deliverables of the Technical Assistance

Building on the ongoing collaboration UNDP has with the MoE and the World Bank teams, the objective of the technical assistance is the support for development and functioning of a robust “Cambodian Environmental Management Information System” (CEMIS) and a data management system, design of sustainable financing mechanisms, and effective Monitoring and Evaluation (M&E) of project activities.

Main scope of the work and expected deliverables:

The main scope of the work is to support 1) the development of a robust “Cambodian Environmental Management Information System” (CEMIS) and a data management system, 2) the design of sustainable financing mechanisms, and 3) effective Monitoring and Evaluation (M&E) of project activities.

- 1) **Technical input and advice and other required support for the development of a robust Information Systems and Decision Support as part of the “Cambodian Environmental Management Information System” (CEMIS)**

The Department of Geospatial Information Service (DGIS) of the Ministry of Environment plays an important role in the management and operation of reliable environmental geospatial data and information basis for decision-making processes providing high-quality data services to practitioners and decision-makers in Cambodia, fostering environmental protection, natural resources management, biodiversity conservation and sustainable development. The DGIS has the **technical input and advice and other required support** for the mission to establish a well-functioning and sustainable Central Data Portal (CDP) through building the internal and external human capacity, in-house technology, standards and procedures.

The UNDP will support DGIS/MOE to develop the Cambodia Environment Information System (CEMIS)/Information Spatial Decision Support System (ISDS) to strengthen the capacity for Protected Area (PA) planning and management and law enforcement. The ISDS will be developed as a cloud-based geospatial platform that can integrate data and information for PA planning and management.

The UNDP will provide technical support to deliver final draft of Prakas on Information Spatial Decision Support System (ISDS) for Data Management and Data Use.

- 2) **Technical input and advice and other required support for the design of sustainable financing mechanisms**

Management of PAs are challenged by lack of adequate funding for planning, capacity development, monitoring, and engagement with communities. The collection of ecotourism fees from tourists will contribute to the financial sustainability of the targeted PAs.

Under 1.2, beyond tourism fees, the project will analyze several other financing opportunities (including Payment for Environmental Services (PES) and REDD+) and will draw on studies on valuation of ecosystem services in the context of natural accounting. The project will also enhance, design, and support the Environmental and Social Fund, Protected Area Fund and other relevant funds created by the MoE.

Under this assignment, UNDP will provide technical assistance to the MoE for identifying and designing possible pathways for financial substantiality for protected landscapes through designing sustainable financing options.

3) Technical input and advice and other required support for effective Monitoring and Evaluation (M&E) of project activities

The successful delivery and results of the project depend on the effective planning, timely implementation of activities and effective monitoring and evaluation. UNDP will provide technical assistance through provision of strategic advice to the Project Implementation Unit (PIU) and technical support for project planning, implementation and coordination including preparation of regular project progress reports and project meetings at the national and subnational levels.

II. Agreed Activities and Deliverables

Output 1: Technical input and advice and other required support for the development of a robust Information Systems and Decision Support as part of the “Cambodian Environmental Management Information System” (CEMIS)

Cambodia Environmental Information Management System (CEMIS):

- Activity 1.1 Provide technical advice to the DGIS team for conducting an inventory of existing spatial data to be used in the ISDS.
- Activity 1.2 Support the DGIS to develop an opensource platform to integrate data in order to display, analyze and produce environmental spatial information
- Activity 1.3 Support the DGIS to integrate of existing DSS into CEMIS and existing initiative from relevant NGOs, ensuring a common infrastructure

Information Decision Support System (ISDS):

- Activity 1.4 Provide technical input/advice to the assessment of existing data held by the DGIS
- Activity 1.5 Facilitate and advise DGIS on the development of a plan to improve, supplement, create, maintain and update data sets
- Activity 1.6 Support the DGIS to develop and test the Information System and Decision Support

- Activity 1.7 Support the DGIS to analyze infrastructure and review key documents under DGIS and MoE for PA monitoring, management and planning.
- Activity 1.8 Support the DGIS to provide recommendations for zoning for all PAs
- Activity 1.9 Support the DGIS to improve the existing IT system including the guidance on the procurement of new hardware, software and office equipment.
- Activity 1.10 Provide technical support on the integration of the Spatial Monitoring Reporting Tool (SMART) and the Deforestation Alert System in the DGIS.
- Activity 1.11 Provide technical support to deliver final draft of Prakas on Information Spatial Decision Support System (ISDS) for Data Management and Data Use.

Capacity development:

- Activity 1.11 Map human resources and existing capacity and data needs under different departments of the MoE (e.g., DGEKI, GDANCP, GDLC) and the MRD
- Activity 1.12 Identify training needs and provide capacity building support for Spatial Data Infrastructure and data management for the staff of DGIS.
- Activity 1.13 Provide capacity building support for Spatial Data Infrastructure and data management for the staff of DGIS.
- Activity 1.14 Support data analysis and data sharing among stakeholders.
- Activity 1.15 Support the DGIS in facilitating the flow of information/ relevant data to MoE departments, MRD and external counterparts' stakeholders based on the initial mapping exercise

Output 2: Technical input and advice and other required support for the design of sustainable financing mechanisms

- Activity 2.1 Examine existing revenue sources and gaps for protected area management in the country
- Activity 2.2 Review options for sustainable finance mechanisms for funds to determine suitability for implementation in the country and link the revenues collection to the Environmental and Social Fund
- Activity 2.3 Support the MoE in reviewing existing economic valuation studies on specific ecosystems in CSLEP and in identifying key ecosystems to be targeted under sustainable financing options
- Activity 2.4 Support the MoE to identify and prioritize potential sustainable finance mechanisms and/or sources to mobilize financial resources and necessary fiscal and policy reforms
- Activity 2.5 Develop a draft inception report to present a set of preliminary action steps for priority sustainable finance mechanisms identified above
- Activity 2.6 Assist in the organization of consultation meeting(s) to select sustainable financing options and incorporate comments to the inception report

- Activity 2.7 Provide technical support for the MoE for designing sustainable financing options for identified ecosystem services
- Identification of key stakeholders to be involved in each prioritized sustainable financing and bankable options
 - Final draft roadmaps of operationalizing sustainable options (sources of payments, revenue collection and benefit sharing, data management and monitoring)
 - Final draft operational and technical guidelines for sustainable financing including PES (if required beyond what have been done above) to operationalize key identified options

Output 3: Technical input and advice and other required support for effective Monitoring and Evaluation (M&E) of project activities

- Activity 3.1 Quarterly/monthly planning meetings and annual Project Steering Committee (STC) meetings
- Activity 3.2 Development of annual, semi-annual and quarterly work plans, M&E and communication plans
- Activity 3.3 Support designing and completion of baseline survey questions and data collection, entry and analyses
- Activity 3.4 Support regular updating of the M&E, baseline data, indicators
- Activity 3.5 Support refinement/update of key objectives/indicators/data collection methods for M&E as required
- Activity 3.6 Regular monitoring and reporting of project progress, field monitoring reports and identification of and reporting on bottlenecks, as well as best practices
- Activity 3.7 Annual/ semi-annual/quarterly reports on the project implementation
Progress Report

III. Work Plan and Timeline

Activity	2021				2022				2023				2024				2025				Full completion
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	
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	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	
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[Note to UNDP User: UNDP's internal "grant expiry date" is set up 3 months prior to the Completion Date to ensure that UNDP has sufficient time for the financial closure and issue the final financial statement 3 months thereafter.]

IV. UNDP's Team

(1) Titles, time input and period of engagement:

N°	Name and Functional Title ⁵	Area of Expertise	Activity/ Position Assigned	Time input (in the form of a bar chart by month)																									
				Year 1 (2021)						Year 2 (2022)						Year 2 (2023)													
				7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8
1	Carlos Riano	REDD+ MRV	International Senior level REDD+ MRV specialist	█																									
2	Sovanna Nhem	REDD+ and M&E	Senior level national M&E and REDD+ specialist	█												█													
3	Intl consultant 1 (TBD)	ICT/ data infrastructure	Technical Equipment need assessment expert																										
4	Intl consultant 2 (TBD)	Web-mapping/ development	IS Web-mapping Developer specialist																										
5	Intl consultant 3 (TBD)	ICT/ web development	Information Technology / Web developer Specialist																										
6	Intl consultant 4 (TBD)	ICT/ database management	Information Technology / Database Manager																										
7	Intl consultant 5 (TBD)	Sustainable Financing	Sustainable financing Specialist																										
8	Intl consultant 6 (TBD)	Sustainable financing	Fund review and design																										

⁵ For Staff, Consultants or, as applicable, Contractor's personnel whom UNDP can select only after the Agreement has been signed, position titles, brief summary describing each position and key qualification requirements will be included in this Annex. UNDP will provide the Government with the names of those Staff, Consultants or, as applicable, Contractor's personnel promptly after they are selected/contracted by UNDP.

				Time input (in the form of a bar chart by month)																												
				Year 1 (2024)												Year 1 (2025)																
No	Name and Functional Title*	Area of Expertise	Activity/ Position Assigned	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	Home	Field	total		
1	Carlos Riano	REDD+ MRV	International Senior level REDD+ MRV specialist																											29	29 months	
2	Sovanna Nhem	REDD+ and M&F	Senior level national M&E and REDD+ specialist																												55	55 months
3	Intl consultant 1 (TBD)	ICT/ data infrastructure	Technical Equipment need assessment expert																											20 days	Intermittent: Year 1: 20 days	
4	Intl consultant 2 (TBD)	Web-mapping/ development	IS Web-mapping Developer specialist																										20 days	60 days	Intermittent: Year 1: 40 days Year 2: 40 days Total: 80 days	
5	Intl consultant 3 (TBD)	ICT/ web development	Information Technology / Web developer Specialist																										20 days	60 days	Intermittent: Year 1: 40 days Year 2: 40 days Total: 80 days	
6	Intl consultant 4 (TBD)	ICT/ database management	Information Technology / Database Manager																										25 days	70 days	Intermittent: Year 1: 40 days Year 2: 55 days Total: 95 days	
7	Intl consultant 5 (TBD)	Sustainable Financing	Sustainable financing Specialist																										25 days	125 days	Intermittent: Year 1: 60 days Year 2: 60 days Year 3: 30 days Total: 150 days	
8	Intl consultant 6 (TBD)	Sustainable financing	Fund review and design																										20 days	60 days	Intermittent: Year 2: 40 days Year 3: 40 days Total: 80 days	

* For Staff, Consultants or, as applicable. Contractor's personnel whom UNDP can select only after the Agreement has been signed, position titles, brief summary describing each position and key qualification requirements will be included in this Annex. UNDP will provide the Government with the names of those Staff, Consultants or, as applicable, Contractor's personnel promptly after they are selected/contracted by UNDP.

(2) Brief description of each position listed in the table above:

- i. **International Senior level REDD+ MRV specialist:** to coordinate the overall TA for CEMIS and ISDS work (output 1) and provide capacity building support for the GIS department for the effective management of information systems.
- ii. **National REDD+ and M&E:** to provide primary technical assistance for M&E related activities (output 3).
- iii. **Intl consultant 1: Technical Equipment need assessment expert** to assess the IT requirement needs for the GIS department to operationalize CEMIS and ISDS systems.
- iv. **Three Intl consultants (2: IS Web-mapping Developer specialist, 3: Information Technology / Web developer Specialist, 4: Information Technology / Database Manager):** together to develop a Platform for the Cambodian Environmental Management System and create and test a scalable and adaptable web-based user-friendly interface/platform (CEMIS), including web hosting and web/cloud services.
- v. **Intl consultant 5: Sustainable financing Specialist:** to assess existing and possible sustainable financing options available and to propose a set of viable options for operationalization.
- vi. **Intl consultant 6: Fund review and design:** to analyze different fund options including the fund sources and purposes and identify ways and steps to operationalize selected set of fund (s).

(3) Short bio of UNDP key personnel listed in Part II table, CVs of Consultants or, as applicable, Contractor's personnel

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**FORM TECH-6
(CONTINUED)**

CURRICULUM VITAE (CV)

Position Title and No.	K-1: Senior level REDD+ MRV specialist (P3)
Name of Expert:	Carlos Riano
Date of Birth:	04/09/1980
Country of Citizenship/Residence	Country of citizenship: Colombia Country of residence: Cambodia

Education:

Master in Geoinformation Science and Earth Observation | Dec-2011 | San Simon University | Cochabamba, Bolivia

- Major: Land Resources Information for Regional Planning
- Minor: Water resource management

Bachelor in Topographic Engineer | May - 2005 | Universidad Francisco Jose de Caldas | Bogotá, Colombia

- Major: Environmental science
- Minor: Spatial Data Management.

Employment record relevant to the assignment:

Period	Employing organization and your title/position. Contact info for references	Country	Summary of activities performed relevant to the Assignment
Aug 2017-present	MRV/REDD+ Technical Advisor UNDP - Cambodia based at the MoE For references: Mr. Bruno Hugel, Tel:+33 7 85866246 e-mail: bruno.hugel@undp.org Global technical advisor, Climate and Forest Team	Cambodia	<ul style="list-style-type: none"> • As REDD+/MRV technical advisor in Cambodia, responsible for overseeing and providing technical quality assurance of the National Forest Monitoring System of the Ministry of Environment (MoE), as part of the national programme to reduce emissions from the forest sector. • Provided technical advice to the REDD+ Technical Secretariat, analyzing the drivers and barriers of deforestation and providing useful information and technical analysis of existing law and regulations in the forest sector, useful for the implementation of the REDD+ National Strategy (RNS) and for the development of the REDD+ Action and Investment Plan (AIP). • Supported the Department of GIS of the Ministry of Environment (MoE) in the data collection, analysis and reporting of land use/cover maps, integrating cloud computing solutions like the RLCMS (SERVIR Mekong) in Google Earth Engine, other solutions in

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			<p>SEPAL and Collect Earth. As a result, the MoE is improving the quality of mapping products and reducing the uncertainty related to the reporting of land use changes.</p> <ul style="list-style-type: none"> • Implemented innovative solutions for monitoring the state of the forest, notably protected areas and community areas. This information has been fundamental to develop the national production forest strategy (in draft), PFS schemas and to support the implementation of zoning activities in protected areas. • Provided technical assistance to enhance technical and institutional frameworks to enable the implementation of REDD+. As a result, a Monitoring, Reporting and verification process of land use changes is included in a new regulation to manage carbon projects. This regulation will enable a transparent and consistent trade of carbon assets at multiple scales with multiple stakeholders. • Coordinated and supported the development of the third Greenhouse Gas Inventory of Cambodia for the First Biennale Updated Report, to include the Carbon Emission Reductions of the forest sector and to model the carbon emission reductions of the land use sector of Cambodia. • Coordinated related works performed by international organizations like the World Bank, FAO, USAID, International NGOs like WCS, Conservation International and Silva Carbon and research institutes like SERVIR Mekong.
Jan 2016 - Aug. 2017	Country Technical Advisor FAO UNREDD -	Cote d'Ivoire	<ul style="list-style-type: none"> • Formulated the plan and collaborated on the methodology and execution of the first National Forest Inventory, the NFMS action plan and the National FREL submitted to the UNFCCC in January 2017. • Conceptualized and launched the national remote sensing unit of the REDD+ secretariat, including the purchase of equipment, the recruitment and training of the MRV national experts. • Provided trainings to the national remote sensing unit to design and implement the spatial land use change analysis at the national level with SEPAL and Google Earth Engine, including data acquisition, assessment, quality control and dissemination of results as maps, statistics and reports. • Conducted the quality and spatial analyses of forest drivers of deforestation and degradation, including the LULUC map at the national scale. • Coordinated, with the geography authorities and forest authorities, the methodology to develop the

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			<p>FRL, the spatial forest monitoring system and the national forest inventory.</p> <ul style="list-style-type: none"> Supported the greenhouses inventory of the forest sector and land use sector, following the IPCC 2006 guidelines. Promoted south-south exchange with Costa Rica to reinforce the knowledge exchange of sustainable practices of agriculture zero deforestation and FES schemes.
Jul 2015 - Jan 2016	MRV Technical Assistant, FAO UNREDD -	Uganda	<ul style="list-style-type: none"> Conducted the assessment and statistics of Forest cover change of 5 periods, using open source tools: SEPAL, Open Foris and Google Earth Engine (GEE). Trained the geomatics unit of NFA on accuracy assessment of thematic maps using the methodology of Chaffin et al 2013 and the IPCC guides, using FAO open source tools. Assisted NFA with finalizing historical time series and utilizing data for the development and submission of the first Forest Reference Level Provided technical trainings to the national team in charge of mapping on remote-sensing, for the MRV mapping component of the REDD+ Programme notably Remote Sensing, GIS and installing the forest inventory equipment and the installation of the GIS laboratory and online monitoring tools. Collaborated on the interpretation of results, produce the final maps based on the harmonized legend and generate the statistical results on areas of the different map units including maps based on inventory results. I supported two backstopping missions obtaining a Forest changed map between 2000- 2005 and 2005-2010 using GEE. A group of three organizations including the members of the government, the civil society and FAO were trained.
May 2012 - Jan 2016	MRV Technical Assistant FAO UNREDD -	DR Congo	<ul style="list-style-type: none"> Built the capacities of the Ministry of Environment to conceptualize, implement and maintain the first National forest Monitoring System of Africa, using both commercial and opensource programs. Led the development of the web-based NFMS portal (www.rdc-snsf.org) and supervised the corrected and timely upload of information from the National Forest Inventory, the Satellite Monitoring System, the REDD+ registry and the National Strategy. Implemented the stratified area estimation of the Mai-Ndombe to establish the baseline for the ER-P area of the carbon project. Supported south-south cooperation with INPE (Brazil) for the exchange of technical capacities for

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			<ul style="list-style-type: none"> monitoring forest in Central Africa countries for REDD+ and FLEGT purposes Provided technical assistance to enhance the technical and institutional capacities of MRV teams of the Republic of Congo, Cameroon, Burundi and Gabon, supporting the transfer of methodologies to engage stakeholders in the monitoring of the forest in the Congo Basin.
May 2009 - Dec 2010	GIS Specialist MONUSCO	DR Congo	<ul style="list-style-type: none"> Successfully updated, deprecated and in control all administrative and political division and boundaries of DRC, ensuring the quality and implementing the new codification to the lowest administrative division; Repaired SRTM 90 and 30 and created mosaics and hillshades to produce maps in different scales; Based on SRTM models extracted and parameterized hydrologic data of the country in 250K scale; Automated processes of updating and creation of queries and views in ArcSDE, performing map generation, improving Arcgis Server services and ensuring the quality of final geographical products; Produce geographic and terrain analysis and situations (ground situations, deployments, road conditions, political, electoral and humanitarian affairs); Coordinated the reception of data from internal and external UN clients, assuring the quality and strengthening the efficiency of the write activities; Developed the integration and manipulation of geodatabases for Urban Model (IGD 10,000 scale) VMap Level2 (50,000 scale) using PLTS extensions for ArcMap. Provided and conduct GIS briefings/presentations and training for Military and civilian staff;

1. Other work Experiences

Data Feature Extractor	United Nation Logistic Base	Distance	4 contracts: 2011 to 2014
Land use info manager	National Rural Development Institute	Colombia	Jan 2007 - Dec 2007
GIS specialist	Civil Aviation Institute	Colombia	Mar 2005 - Jan 2009

1. Membership in Professional Associations and Publications
LULUCF Technical Expert of the UNFCCC

2. Language Skills (Indicate only languages in which you can work)
English, French, Spanish

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Adequacy for the Assignment:

Detailed Tasks Assigned on Consultant's Team of Experts:	Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks
<p>Technical Area I: Technical input and advice and other required support for the development of a robust Information Systems and Decision Support as part of the "Cambodian Environmental Management Information System" (CEMIS)</p>	<ul style="list-style-type: none"> • More than 10 years of working experiences as an expert of GIS, remote sensing and monitoring of natural resources and forest sector • Prior working experiences with UNDP and FAO as an MRV/REDD+ expert and advisor to ministry of environment in at least 4 countries including Cambodia • Extensive and robust skills and knowledge related to information management system as well as decision support systems • Prior experiences providing capacity building support for the GIS departments to strengthen the institutional and technical capacities in data and information management to assist informed decision making related to land uses. • Have contributed to the prior discussions and work in designing the CEMIS in coordination with all concerned stakeholders including the MoE, WB, GPL, WCS and SERVIR Mekong and successfully formed a partnership for collaboration

Expert's contact information: (e-mail carlos.riano@undp.org, phone +855 61 441 634)

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available, as and when necessary, to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client, and/or sanctions by the Bank.

Carlos Riano



10 Feb, 2021

Name of Expert

Signature



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Nick Beresford

Nick Beresford

16 Feb. 2021

Name of authorized
Representative of the Consultant
(the same who signs the Proposal)

Signature

Date

Position Title and No.	<i>K-2: Senior level national M&E and REDD+ specialists (SB3)</i>
Name of Expert:	Sovanna NHFM
Date of Birth:	06 May 1967
Country of Citizenship/Residence	Cambodia

Education: (List college/university or other specialized education, giving names of educational institutions, dates attended, degree(s)/diploma(s) obtained)

<i>Institute</i>	<i>Address</i>	<i>Degree</i>
2007-2008 Royal University of Phnom Penh	Phnom Penh, Cambodia	Master of Art in Development Study
1987-1993 Agriculture and construction Institute of Kirovograd, Ukraine	Former Soviet Union	Master of Science in Engineering

Employment record relevant to the assignment: (Starting with present position, list in reverse order. Please provide dates, name of employing organization, titles of positions held, types of activities performed and location of the assignment, and contact information of previous clients and employing organization(s) who can be contacted for references. Past employment that is not relevant to the assignment does not need to be included.)

Period	Employing organization and your title/position. Contact info for references	Country	Summary of activities performed relevant to the Assignment
2014- Present	UNDP Cambodia National Project Advisor for the WB/FCPF funded Forest Carbon Partnership Facilities-REDD+ Readiness Project I and II For references: Tel#12 919041/e-mail sovanny.chhum@undp.org Mr. Chhum Sovanny, Programme Analyst, UNDP Cambodia	Cambodia	<ul style="list-style-type: none"> Advisory and coordination support in monitoring and evaluation of project results Advisory and coordination support in development of the National REDD+ Strategy and Implementation Framework Coordination and Partnership building Capacity building and technical support

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Section 3 – Technical Proposal – Standard Forms

2011-2014	UNDP Cambodia National Project Advisor for the UNDP/GEF Funded Project "Strengthening Sustainable Forest Management and Bio-Energy Markets to Promote Environmental Sustainability and to Reduce Greenhouse Gas Emissions in Cambodia"	Cambodia	<ul style="list-style-type: none"> • Provided advice and strategic guidance for effective management and implementation for UNDP/GEF funded project to the FA/MAFF, MLMUPC and MIMB for effective implementation and ensuring project results achieved in accordance with the project objectives and target results as well as in accordance with UNDP policies and Procedures • Provided advisory support to monitor and evaluate the project to ensure effectiveness and efficiency of project delivery in accordance with project targets, outputs and outcomes. • Liaised with concerned stakeholders including concerned ministries, provincial departments and other key players to promote effective collaboration, synergy, capacity development, ensuring communication of project results as well as preparing different reporting requirements.
2007- 2011	UNDP Cambodia Sr. Natural Resource and Environment Management Advisor - National Coordination for the project to Support Democratic Development through Decentralization and Deconcentration (PSDD/NCDD)	Cambodia	<ul style="list-style-type: none"> • Overall coordination and management of the Natural Resource Management in Decentralization and Deconcentration Component funded by DANIDA/DFID of NCDD Program. • Assessed and evaluated proposal/contract and annual workplan and budget of PRDC/Excom and provide technical recommendation to NCDDs for approval • Provided Technical and Advise and assisted PSDD/NCDD to develop strategies and guidelines for mainstreaming natural resource management and livelihoods concerns into the decentralization planning process and implementation. • Ensured building partnership and coordinate activities with relevance Ministries. • Capacity builds and assists in NCDD and Secretariat, relevance PSDD staff and partners on NREM concepts, principles and links between NREM and governance to implement the NCDD NREM strategy and the NRM in D&D component. • Assisted PSDD/NCDD to keep Donor updated on progress of the component implementation • Established and maintained networks with other UN, donors, agencies and civil society on NREM issues and projects.

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IV. Appendices

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			<ul style="list-style-type: none"> • Provided direction and supervise short term consultants and Provincial NREM Technical Advisers. • Assisted NCDD secretariat in ensuring the consolidation and expansion of donors' participation in support of the NCDD NREM strategy and resources mobilization effort undertaken by the NCDD Secretariat. • Organized and conducted workshops at different levels including provincial and national levels.
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Membership in Professional Associations and Publications:

Language Skills (indicate only languages in which you can work):

Language	Proficiency
English	Good (speak, read and write)
Khmer	Excellent (speak, read and write)
Russian	Good (speak, read and write)

Adequacy for the Assignment:

Detailed Tasks Assigned on Consultant's Team of Experts:	Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks
<p>Area 3: Technical input and advice and other required support for effective Monitoring and Evaluation (M&E) of project activities</p>	<ul style="list-style-type: none"> • More than 10 years of working experiences as a project advisor, providing strategic guidance and management direction to ensure the successful implementation of projects • For all of these positions, worked very closely with the Ministry of Environment and played a central role in designing and implementing M&E activities including development and modification of indicators and data collection and analyses

Expert's contact information: (e-mail soverna.nhem@undp.org, phone 012 959429)

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available, as and when necessary, to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client, and/or sanctions by the Bank.

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Section 3 – Technical Proposal – Standard Form

Sovanna NHEM

Name of Expert



Signature

Date: February 15, 2021

Nick Beresford

Name of authorized
Representative of the Consultant
(the same who signs the Proposal)



Signature

Date: February 16, 2021



i. Intl consultant 1: Technical Equipment need assessment expert

Requirements:

- Education: At least Bachelor's degree in the Computer Science or related field Certified in Windows, Cisco (Optional)
- Experience:
 - At least 3 years of experience in managing/coordinating the network cabling setup with the assigned technical team.
 - At least 3 years of experience in Managing/coordinating server's configuration setup with the assigned technical team.
 - Experiences in Working with GIS Database server, and Network troubleshooting.

ii. Intl consultant 2: IS Web-mapping Developer specialist

Requirements:

- Education: Professional specialization in GIS, spatial planning and database management applied to conservation including consolidating, managing and updating spatial databases.
- Experience:
 - At least 10 years of experience with spatial planning including GIS analyses.
 - Proven development of at least three national or regional DSS, including data systems and methods applied to conservation, sustainable development and spatial planning.
 - Strong experience in consolidating, managing and updating spatial databases and Spatial Data Infrastructure, notably in cloud systems.
 - Prior experience in Environmental Analysis and Mapping by mapping locations of natural features and phenomena such as soil type, forestation, species, waterways, and floodplains.
 - Strong knowledge of Cloud mapping systems like Earth Engine is a plus.
 - Prior working experience in Cambodia or the Southeast Asia is a plus.

iii. Intl consultant 3: Information Technology / Web developer Specialist

Requirements:

- Education: At least a master's degree in computer science, Computer Engineering or related field with 1 - 2 years of work experience in GIS for web mapping, or a combination of bachelor's degree with 6 years of experience in GIS for web mapping.
- Experience:
 - At least 5 years' experience in development GIS web-mapping technology, geospatial data and mapping applications in cloud services.
 - Experienced in front-end development and UI/UX design

- Strong experience in HTML, JavaScript/CSS/JQuery
- Demonstrate experience in cloud systems solutions.

iv. Intl consultant 4: Information Technology / Database Manager

Requirements:

- Education: At least a master's degree in Computer Science, Computer Engineering or related field with 1 - 2 years of work experience in database management system for web mapping, or a combination of bachelor's degree with 6 years of experience in database management system for web mapping.
- Experience
 - 5 years of experience in database management systems for online solutions.
 - Demonstrate database experience and development in Map server or GeoServer, SQL Spatial, Postgres/PostGIS and other open-source solutions.
 - Proficient in Python, Java and R programming language for Spatial decisions
 - Desirable experience in Earth Engine and Google Cloud.

v. Intl consultant 5: Sustainable financing Specialist

Requirements:

- Education: At least a master's degree in environmental economics, natural resources management and policy or a related field
- Experience
 - At least 5 years of experience with NRM and protected areas and biodiversity conservation including sustainable financing
 - Demonstrated successful records in reviewing a range of financing options for managing natural resources and protected areas
 - Excellent research, analytical and writing skills

vi. Intl consultant 6: Fund review and design

Requirements:

- Education: At least a master's degree in environmental economics, natural resources management and policy or a related field
- Experience
 - At least 5 years of experience with NRM and protected areas and biodiversity conservation.
 - Demonstrated successful records in reviewing financing options and designing financial mechanisms
 - Excellent research, analytical and writing skills;