

## **Terms of Reference for consultancy firm to conduct water audit at 10 textile wet processing factories and compilation of Water Efficiency (WE) Practices Guidebook**

**Project:** Textile Water Efficiency Project (40002347-403270-51000)  
**Work location:** Consultants to be based in the North and South of Vietnam  
**Duration:** January to May 2022

### **Background**

Domestic fabric production and finishing is now considered in great demand for growth in the context of Vietnam's goals to boost its larger value added earnings from textile trade in the CPTPP and EVFTA, where the rule of tariffs removal is commonly applied for 'yarn forward' or 'fabric forward' sourcing internally in those FTAs' territories. At the same time, weaving and dyeing facilities are confronting scarcer and more expensive resources to reach their full production capacity. Water, energy is taking higher proportion of operational cost, while the cost for effluent of all kinds of wastes (wastewater, solid waste and gas emission) are peaking to comply with environmental regulations. Overexploitation of water, combining with drought and salt intrusion as the consequence of climate change have caused massive degradation in the quantity and quality of water aquifers. To its turn, water stress affects the energy production, as both hydro and thermal power plants heavily depend on water source. This time is more than ever when the business sustainability solutions is placing around the water and energy efficiency, renewable energy, and boosting resources' circularity.

Following the theory of change, behavioral change starts with change of knowledge and awareness for relevant stakeholders. As a science-based organization, WWF conducts a variety of researches to provide evidences of risk implications as well as practical solutions for stakeholders to address those risks. We aim to organize training seminar to transfer the knowledge to relevant parties. The engagement activities continue to ensure all relevant parties are required to engage and push the transformation process of the Textile sector becoming cleaner and environmental friendly, helping Vietnam Textile sector gaining brand "Sustainably made in Vietnam" instead of currently "Made in Việt Nam" one.

In the green transformation journey, it is commonly observed textile wet processing facilities that Energy Efficiency (EE) practices are more advanced compared to Water Efficiency (WE). With abundant technical expertise, tools and government legal guidance, factories' improvement on EE are smooth and well progressed. Meanwhile, the WE drive and movement is far behind. Therefore, the WWF water stewardship program in the textile sector is expected to enrich the WE landscape with practical technical knowledge and onsite experiment, develop business case of WE practices and facilitate the wider upscaling of these practices. The water stewardship journey at one textile-dyeing facility starts with a baseline water audit which is to find out ineffective use of resources in the main production process or in auxiliary system.

### **Assignment Objective**

This assignment aims at conducting baseline water audits at 10 textile wet processing factories and compilation of Water Efficiency Practices Guidebook in the textile sector

The consultancy firm is to conduct 1-day onsite trip to selected factories to collect water consumption as well as wastewater treatment data, evaluate performance efficiency of the companies/factories in Specific Water Consumption (SWC) figures. During the factory visit, meeting and interview with managerial and

technical staff are to explore common measures that textile enterprises have taken to improve water efficiency and reduction in factory production and machinery systems.

For the WE practice guidebook, the consultant team is to gather the inventory report from the industry expert consultant hired by WWF, combining with information and data collected during 10 factory water audits as well as the team's available resources. The team is responsible for producing the guidebook, making it ready for design and publication

## **Assignment tasks**

Specific tasks include:

- Take field study to each of 10 selected factories to conduct water and energy audit in order to collect water consumption as well as wastewater treatment data, evaluate performance efficiency of the companies/factories in SWC figures. The field study also conducts the inspection of key equipment and processes of companies to understand common measures already taken to improve water efficiency and accordingly identify potential water efficiency as well as wastewater treatment technologies and options;
- Compile and deliver audit report for each textile wet processing factories and suggest recommendations for water sustainability improvement.
- Gather technical and financial information of WE solutions applied by audited and other factories, then to collaborate and receive feedbacks to the industry expert consultant hired by WWF to compile and finalize the WE Solutions Guidebook
- Present and facilitate the guidebook consultation meetings for targeted factory group in order to verify collected water efficiency data and get their feedback on the Guidebook contents in relevance to specific cases applied at individual factory. The consultant is then in charge of revising, structuring and finalizing the Guidebook, making it ready for design and publication
- Present the Guidebook at two training seminars will be organized at the sectorial level to disseminate the Guidebook to textile manufacturers

## **Deliverables**

The consultancy firm will provide deliverables and respective timelines as below:

- Deliverable 1: 10 individual water audit report, including analysis of SWC data  
Ten (10) water report to collect water consumption as well as wastewater treatment data, evaluate performance efficiency of the companies/factories in SWC figures, and recommend potential water efficiency as well as wastewater treatment technologies and options; report submitted in either English or Vietnamese language, upon individual factory's preferred language
- Deliverable 2: 01 outline of Water Efficiency Practice Guidebook  
The outline is submitted for feedback and agreement on the Guidebook structure and presentation of contents; outline submitted in Vietnamese language

- Deliverable 3: 01 Water Efficiency Practice Guidebook  
One (01) Guidebook of WE Practices applied by textile factories, covering comparative assessment of these solutions' effectiveness in terms of technical, environmental and financial benefits, implications, and lessons learnt for upscaling in other factories; report submitted in Vietnamese language

*Deliverables*

- (a). 10 individual water audit report, including analysis of SWC data.
- (b). 01 outline of WE Practice Guidebook
- (c). 01 WE Practices Guidebook

*Timeline*

End of April 2022  
End of Mar 2022  
End of May 2022

## **Reporting line**

This consultancy will be directly managed by WWF Vietnam's textile project manager. Relevant colleagues from WWF International and regional teams will provide indirect supervision.

## **Required Profile**

### **Essential qualifications, knowledge and experts**

- Consultancy firm to have excellent knowledge and experience of working with Vietnam textile sector in general and sustainability aspect in specific;
- Very familiar with the environmental dimension of the textile sector (i.e. water, energy, chemical and waste and wastewater management);
- Sound working skill to consolidate technical and financial data relating to resource efficiency practices
- Excellent experience in working with relevant departments at the ministerial and municipal level on environmental and water resource management in order to access to the secondary data on the water/energy use of enterprises;
- Good working experience at enterprise level, especially textile and garment enterprise;
- Experience working with research, primary and secondary data collection and other relevant professionals;
- Knowledge of pollution parameters and level of impacts
- Writing proficiency in English and Vietnamese languages.

## **Proposal format**

1. Proposal Cover Letter signed by a person authorised to sign on behalf of the Offeror;
2. CV & Summary of relevant experience and projects;
3. Technical Approach/Proposal for completing the deliverables;
4. Work plan
5. Financial proposal

## **How to apply**

All proposals must clearly indicate the tender reference: “Ref. PR-HAN-FY22/0023 - conduct water audit at 10 textile wet processing factories and compilation of Water Efficiency (WE) Practices Guidebook” and send **via email:** [nga.hoangthanh@wwf.org.vn](mailto:nga.hoangthanh@wwf.org.vn) , cc: [procurement@wwf.org.vn](mailto:procurement@wwf.org.vn)

The deadline for proposal submission is at **11:00AM, 27th January 2022.**

Late bids will be declared invalid.

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