

## Request for proposals:

# Horizon scanning future production areas for UK imports of fruits and vegetables

## Introduction

WWF-UK and Tesco are in partnership with an overall goal to reduce the environmental impact of the average UK shopping basket by 50%. The partnership encompasses a range of issues such as climate change, seafood, commodities, deforestation, landscapes, and water.

As part of this partnership, WWF-UK would like to commission a study to examine trends and potential future developments in global sourcing areas for UK imported fruit and vegetables (F&V).

Production of F&V for the UK market is having an impact on biodiversity in many global sourcing areas. Ecosystem conversion for agriculture and farming practices affect terrestrial biodiversity and water use for agriculture affects freshwater ecosystems, or the availability of water for other users. Our experience to date is that once land or water has been allocated to agriculture at an unsustainable level it is extremely difficult to re-allocate it back to ecosystems or communities. However, proactive implementation of effective land and water allocation policies can prevent unsustainable allocations from emerging in the first instance.

We are seeking proposals to address the following questions:

1. Given current trends in climate, economic development and production volumes, which existing major global sourcing areas for irrigated fruit or vegetables<sup>1</sup> are likely to see increased or reduced production, and what are the associated changes in water stress and biodiversity?
2. What new areas are likely to emerge as important export-focused production areas for F&V, and what is the likely scale of increased water use for agriculture, loss of freshwater and terrestrial biodiversity. For these emerging areas, what is their vulnerability to climate change impacts?

We would like to understand these trends in the short (5-10 years) and longer term (10-20 years) and, for existing major sourcing countries, how this might affect sub-country level sourcing areas (e.g. trends for sourcing to shift from coastal to highland areas in Peru) as well as country-level shifts in sourcing (e.g. will Mozambique become a key sourcing country as a result of the Beira Agricultural Growth Corridor?).

Our joint interest in the outcome of this study is to be prepared for future developments and to proactively engage in key locations, to ensure that sustainable water allocations, biodiversity protection mechanisms, and climate resilience are established prior to the development or further expansion of export focused F&V production.

---

<sup>1</sup> The scope is limited to the following crops: citrus, stone fruit, topfruit (other), strawberries, blueberries, , bananas, grapes, pineapples, avocado, melons, pomegranates, mango, potatoes , brassicas, seasonal vegetables (to be defined), chilled salads, asparagus, mangetout & sweet peas

## Approach

We are very open to proposals for different approaches to best address the overarching goals outlined above. However, our current view is that the different approaches should be taken for the short term and longer term horizon scanning.

### Short term horizon

Assessment of the short-term trends (5-10 years) should look at likely sub-country changes in existing sourcing countries as well as emerging sourcing countries. It is anticipated that this assessment will draw on these main sources of information:

- A review of readily available literature
- Existing trends for different F&V categories observable in trade data to identify a short list of 'hot-spot' countries where a) current volume is significant, b) significant growth is happening in absolute terms (suggesting an expansion of area) or c) in relative terms (suggesting it is a potential new area).
- For hot spot countries identify existing production areas for the crops in scope at a sub-national scale
- Spatial analysis of production areas overlaid on datasets for biodiversity to identify potential high biodiversity freshwater and terrestrial habitats that could be impacted.

The output of this assessment should be a narrative report, by country, of findings that highlights key trends and likely water and biodiversity implications.

### Longer term horizon

The purpose of this longer-term (10-20 years) time horizon assessment is to 1) identify potential 'disruptors' i.e. countries that could dramatically increase their export of F&V over this time period to become leading exporters and 2) where physical constraints (e.g. climate, water, soil fertility) are likely to significantly affect production levels in existing key production areas. This analysis should also account for potential market disruption because of shifts in demand. By its nature this part of the assessment is more uncertain, and requires a different approach. We anticipate the longer term assessment will require a combination of literature review and spatial data analysis.

While the main focus area for this study is freshwater/terrestrial biodiversity and climate resilience, it is recognised that factors other than water will play a role in future trends in F&V sourcing areas. For the longer term horizon scanning, proposals should only look at physical constraints for export agriculture and assume that any non-physical constraints (e.g. governance, tariffs) are overcome over this time period.

Proposals should consider:

- Suitability of soils
- Availability of farmland
- Climate suitability and water availability
- Climate change projections for temperature and rainfall
- Infrastructure for product transportation (current and proposed, for example East and Southern Africa development corridors, Belt and Road Initiative)
- Country level and regional agricultural growth strategies that might expand production of F&V

- Water management infrastructure (current and planned/proposed (e.g. discussions related to expansion of irrigation in sub-Saharan Africa)
- Existing and projected UK consumption and production of F&V to understand likely longer term trends in domestic F&V production and identify the extent to which domestic production might offset global imports.

Several of these factors have been assessed through existing tools. Where appropriate these tools should be reviewed and key outputs from them integrated into the analysis. The output should be in the form of a narrative report setting out the method and findings. This should include a table showing, at sub-country scale, a list of regions/countries where production is likely to increase, reduce or remain stable in the longer term.

## Deliverables

A single report and two clear presentations – one appropriate for technical Tesco colleagues who know the sourcing region, and one appropriate for non-technical Tesco colleagues who need a top-line overview, including:

- The analysis outlined above.
- A map/tool that lists the regions reviewed and highlights the level of risk, supported by a summary of each country's risks.
- Recommendations for mitigating risks for each sub-region identified.

## Budget and timeline

Deliverables are expected within 3 months of contract signature. The consultant should organise conference calls or in-person meetings with the relevant WWF and Tesco at inception, to ensure alignment of objectives, and also at the mid-point and completion.

The budget is up to £40,000 including VAT and all costs

Proposals should be submitted by 9<sup>th</sup> October 2020.

## Contact for queries and submissions

Conor Linstead  
Freshwater Specialist, WWF-UK  
The Living Planet Centre, Rufford House,  
Brewery Road, Woking, Surrey GU21 4LL  
T: 01483 412470, 07771 818696  
clinstead@wwf.org.uk