



***National Council for Scientific Research***  
***Center for Remote Sensing***

**Terms of Reference**  
**FOR**

**Acquiring High Resolution Satellite Images**  
**In order to Assess Crop Yield Cultivation**  
**For the season of 2016**

**Technical and Administrative Terms and Conditions**

# **Terms of reference and scope of services in order to acquire high resolution satellite images for assessing crop yield cultivation for the season of 2016**

## **Context**

Although Lebanon does not have an officially adopted national subsidy policy, the Lebanese government provides agricultural subsidies to farmers in the form of high producer prices. These subsidies provide benefit to wheat and Arabic bread producers. The Directorate General of Cereals and Beetroot (DGCB) encourages the production of cereals and beetroot and ensures that the quantities produced are sold at subsidized prices. In addition to the development of the agricultural sector, one of the DGCB key prerogatives is to preserve the stability of the wheat supply. It is, therefore, allowed to import wheat and sell it at subsidized prices, following the approval of the Council of Ministers.

When subsidizing domestic wheat, the DGCB purchases it from Lebanese farmers at guaranteed prices and sells it at international market prices making a loss that is covered by the subsidies allocated in the National Budget for this purpose. Farmers can claim subsidies up to a certain ceiling in tons per hectare of cultivated land only in order to prevent abuses. Thus, the magnitude of the subsidy per farmer is relatively capped to the size of cultivated area in order to limit subsidies on smuggled wheat from neighboring countries. Caps are based on in-depth expert studies and vary according to regions.

In this context, The National Center for Remote Sensing of the CNRS, and through a joint project with the Directorate General of Cereals and Beetroot in the Ministry of Economy and Trade, is aiming to assess on a parcel level and through remote sensing techniques the wheat and barley cultivation covering the Lebanese governorate for the season of 2016. Accordingly, the Remote Sensing Center is seeking to acquire new satellite images for the period of May 2016 according to the below terms and conditions:

## **Terms and Conditions**

### **I. Characteristics of the satellite images:**

#### **a) Specifications for the coverage of the given AOIs:**

- Resolution: 1.5m
- Product Level: Orthorectified and mosaiced
- Cloud coverage: < 15%
- Off Nadir Angle: < 25 °
- Date: May 2016
- Spectral Bands: 4 bands (R,G,B,IR)

- RMS: better than 7m
- Bit depth: 12bits
- Projection: UTM 36N, WGS84
- Image Format: GeoTIFF
- Area: 1700Km<sup>2</sup> + 500m buffer zone
- Satellite image product used for this project must be of European or American Origin.

**b) Specifications for the coverage of the whole country:**

- Resolution: 5m
- Product Level: Orthorectified and mosaiced
- Cloud coverage: < 15%
- Off Nadir Angle: < 25 °
- Date: May 2016
- Spectral Bands: 5 bands (R,G,B,IR,RE)
- RMS: Max 10 m
- Bit depth: 12bits
- Projection: UTM 36N, WGS84
- Image Format: GeoTIFF
- Area: 10452Km<sup>2</sup> + 500m buffer zone
- Satellite image product used for this project must be of European or American Origin.

**II. Deliverables:**

- One set of raw 1.5m resolution satellite imagery
- One set of raw 5m resolution satellite imagery
- One set of natural colors 1.5m resolution satellite imagery, orthorectified, enhanced and mosaiced in GeoTIFF format
- One set of natural colors 5m resolution satellite imagery, orthorectified, enhanced and mosaiced in GeoTIFF format
- One set of IR band 1.5m resolution satellite imagery, orthorectified, enhanced and mosaiced in GeoTIFF format
- One set of IR band 5m resolution satellite imagery, orthorectified, enhanced and mosaiced in GeoTIFF format
- One set of Red Edge band 5m resolution satellite imagery, orthorectified, enhanced and mosaiced in GeoTIFF format

### III. Delivery Time:

- 3 weeks after data acquisition

### IV. Qualifications:

- The consultant must have executed at least 3 satellite image coverage each of an area not less than 10500 km<sup>2</sup> in the past 5 years, certificate of completion must be provided.

### V. Payment

- Full payment shall be made upon the provision of the services and verification of its compliance with the specifications

### VI. Penalties

- In case the delivered images are not in conformity with the specifications defined above or in case of a delay in providing the services or in case of failure to procure the required images the contacting authority will apply a penalty amount of 20,000,000 L.L (Only twenty million Lebanese pounds)

### VII. Financial guaranties

- No financial guarantee is needed.

### VIII. Transmission of the tender

- Companies that are interested in this contract should submit a tender to the National Council for Scientific research no later than **April 12, 2016 by 14:00** at the following address:

The National Council for Scientific Research

B.P. 11-8281, Ryad El Solh 1107 2260

Rue Zahia Salman, Beirut - Lebanon

<http://www.cnrs.edu.lb>

Tel: +961 1 840260

Fax: +961 1 822639

- Tenders must be placed inside a sealed envelope that must bear the subject of the tender and the name and address of the tenderer.
- Envelops should be handed to **Miss Lina Abbas** at the **5<sup>th</sup> Floor** of the address above.
- Any envelopes that may be delivered after the above mentioned deadline and closing time or delivered in non-sealed (unclosed) envelopes will be discarded and will be sent back to the senders.

## IX. Content of the tender

- Offers for the service contract shall be written in English or Arabic, and prices shall be denominated in Lebanese pounds and in US Dollars including VAT.
- A cover letter for the submission of the offer signed by the tenderer or his duly authorized representative confirming the validity of his offer for 2 months from the deadline for the submission of the offer;
- The completed and signed ~~general information~~ Terms and condition sheet (see Annex A);
- Documents needed to prove that the tenderer meets the selection criteria
- Commitment to undertake the described tasks if the contract is awarded to the tenderer, signed by the tenderer or his authorized representative.

## X. Opening of the tender

- The tenders received will be opened **on 14 April 2016 in the CNRS 4<sup>th</sup> floor-Room #418 at 9:00 am**. One representative per tenderer can be present at this opening session. Tenderers who plan to attend the opening session have to inform the CNRS- Remote Sensing Centre by **Fax: +961 4 409 847 by April 13 at the latest**

For any questions or inquiries please contact Dr. Ghaleb Faour; email: [gfaour@cnrs.edu.lb](mailto:gfaour@cnrs.edu.lb); Tel: 00961 4 409 845/6