**Food and Agriculture Organization
of the United Nations**

IMPROVED AGRICULTURAL MONITORING SYSTEMS THROUGH SATELLITE IMAGERY FOR IRAN

CROP AREA AND YIELD ESTIMATION

GOAL: Identify state of the art methods, and suggest improvements for moving forward to improve national forecasts and estimates of crop yields.

KEY APPROACH:

01 Identify sites for crop cutting, crop area and yield estimation through sampling in the field.

02 Generate crop area and yield estimation for the selected sites, based on geospatial information (e.g. Sentinel 1 and 2).

03 Validate the existing crop production information through remote sensing indicators and identify the main seasonal crop dynamics.

04 Develop crop masks for some major crops and selected sites based on multiseries satellite imagery - as a demonstrator for a larger UTF.

05 Develop an efficient and low cost stratification for application within an area frame for improved agricultural estimate.

06 Propose a cost-effective methodology for estimating the area under major crops at national level (for a larger project);

The project will benefits from the multi-temporal satellite images for testing monitoring across a range of crops. An "Action plan" for scaling-up at national level of tools and approaches will be developed.