

## **TAHAK<sup>1</sup>, A meteorological application services initiated by IRIMO to support end users**

### **Background**

To provide maximum available meteorological information produced by I.R. of Iran Meteorological Organization(IRIMO) to farmer's community, to evaluate IRIMO's added values services and in line with World Meteorological Organization(WMO) strategic plan, IRIMO initiated a comprehensive climate information services –named TAHAK-to end user by focusing on farmer's communities since 2014.

### **Objectives**

Main objectives of TAHAK are: minimize both quantitative and qualitative losses in agricultural products, reduce the damages caused by natural disasters, fix the weakness of informing systems and avoid wasting time, energy and financial resources because of human mistake.

Central core of TAHAK is identifying user's needs and making a two-way communication between IRIMO and end users which is designed to run in the seven main operational phases as follows:



- 1- Identifying end users
- 2- Needs assessment
- 3- Service production
- 4- Efficient service delivery
- 5- Capacity Building
- 6- Feedback
- 7- Documentation

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<sup>1</sup> TAHAK is a Persian abbreviation means “development of meteorological application for end users”

## Who is involved?

TAHAK became operational in the 31 provinces of Iran with almost 1000 users. It was implemented successfully under the guidance and goals of the WMO Strategy for service delivery and its implementation plan which was approved at the sixteenth session of the World Meteorological Congress in 2011 ([WMO](#) publication- No. 1129).

Local observers of synoptic weather stations are contributed to TAHAK implementation process by producing added value information from raw meteorological observations. They are expected to serve as TAHAK representative in relevant county. Local weather observers help bridge the gap between farmers and IRIMO in paving the way for the implementation of TAHAK by delivering added value applicable meteorological information and practical tips to carry out appropriate field actions according to the weather conditions. Existence of a two-way relationship between meteorologists and end users is the key point in current program.

## Implementation process:

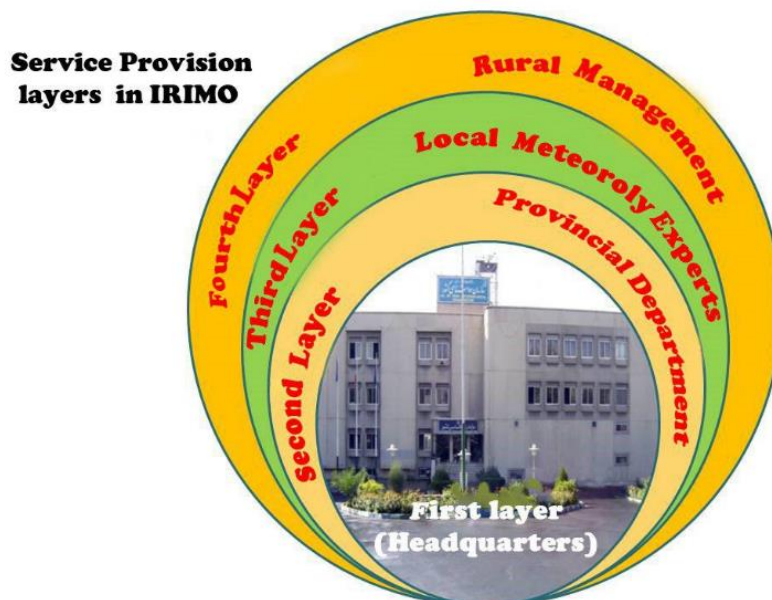
TAHAK consist from four layers:

**First layer:** TAHAK main bureau which is based in IRIMO headquarter in Tehran,

**Second layer:** Provincial representative of TAHAK in all 31 provinces of Iran,

**Third layer:** Local well trained weather observers acts as face to face communication expert,

**Fourth layer:** Additional layer consist from rural authorities/council is needed to complete the TAHAK chain.



Added value data and information are mainly produced in provincial bureaus. The productions are being sent to county's meteorology departments and local observers. Meteorological knowledge of observers together with their local experiences form the core of the program which makes third

layer. Due to direct communication with farmers, rural management/councils would also help on timely delivering meteorological information.

**Achievement:**

THAK is under developing to other sectors including health, fisheries, air pollution and so on. The program also setting up an automated version of production and delivery of user-centric services for the agricultural meteorology and other sectors.

Over the past three years (2014-2016), TAHAK became operational in all 31 provinces of Iran and 1,200,000 of farmers have been involved to the program, covering different agricultural fields of: honey production, olives, shrimp, dates, apples, grapes, wheat, rice, poultry and ostriches farming, bees and etc. The value Added of services in this system in the last crop year of 2015-16 (1394-95 in Persian calendar) and in the 11 provinces is estimated to be 110000 USD.