

## Terms of references for a consultant on irrigation mapping in Limpopo, South Africa

IWMI is using satellite imagery to map irrigated and rainfed areas in Asia and Africa building on IWMI's previous attempt on Global Irrigated Area Mapping (GIAM). Irrigated and rainfed areas of Asia has already been produced at 500 meter resolution (MODIS) with more ambitious goal being set for Africa:

[http://waterdata.iwmi.org/global\\_irr.php](http://waterdata.iwmi.org/global_irr.php).

As part of this effort and through our collaboration with the Department of Agriculture, Fish and Forestry (DAFF), we aim to further improve and enhance the products at smaller scale in South Africa. That is, considering hardware and software capacity, to develop a high resolution map (Landsat 8 based) with more information needed for crop production, water and environment management. This value-added information, with a focus on both commercial and small holder farmers, includes irrigation sources (surface, groundwater), cropping pattern (start, harvest time, cropping intensity, crop types), and typology (large commercial, small fragmented).

In supporting this role we are looking for a highly motivated and skilled consultant to join our team. The consultant is expected to make below contributions.

- Methodology development in mapping irrigated and rainfed areas (particularly the small scale agriculture) using Landsat 8 dataset;
- Implementing the method to map irrigated and rainfed area maps of Limpopo Province detailing water sources, cropping patterns, and typology;
- Writing of the report on methodology and results.

To successfully deliver above the person is expected to have below skills and experience:

- Demonstrated experiences in Land use/land cover mapping
- Proficient in satellite image processing using image processing software
- Knowledge on agriculture in the Limpopo Province

The contract will be for a fixed period of eight months. The consultant is expected to work with and report to Dr Xueliang Cai in IWMI's Pretoria Office. All inquiries and CVs should be sent to the following email address: [x.cai@cgiar.org](mailto:x.cai@cgiar.org).

The International Water Management Institute ([www.iwmi.org](http://www.iwmi.org)) is an international, non-profit research organization dedicated to providing evidence-based solutions to sustainably manage water and land resources for food security, people's livelihoods and the environment. IWMI is a member of CGIAR, a global research partnership for a food secure future.