



RESEARCH
PROGRAM ON
Dryland Systems

DECEMBER 2015

SWAT Modelling. Fine tuning
data inputs and performing
calibration.
Training report

Food security and better livelihoods
for rural dryland communities

Summary Report

The individual training session on “SWAT Modelling. Fine tuning data inputs and performing calibration” was held from 24th to 29th of November 2015 at Icarda office in Amman, Jordan, as part of the activities carried out by the CGIAR Research Program on Drylands Systems, North Africa and West Asia Flagship, Agro-Pastoral System. This report is one of the outputs generated by the Activity 6 - “Management of water scarcity”.

The training has been planned by Dr. Claudio Zucca in collaboration with IWLMP office staff Mrs. Grace Baghdassarian. The workshop was led by Dr. Claudio Zucca and Dr. Stefan Strohmeier. Main focus of the course was watershed scale modelling using SWAT software. The objective of the training was to improve the capacities of the INRGREF PhD student Walid Ben Khélifa (Tunisia) and support his modelling work, being conducted in one of the research sites of the Dryland System Activity, located in semi-arid northern Tunisia (Sbaihia – Rmel watershed).

Final goal of the joint work was the preparation of a scientific article to be submitted to an international journal in the coming months.

On the first day of the workshop (24th of November 2015), a work planning meeting was held. During the following days the student worked intensively to model implementation, under the supervision of the trainers. On 28th of November a meeting was held to review the progress done and to plan future tasks to be accomplished to complete the research and to achieve international publication of results.

Summary information

| | |
|-------------------------------------|--|
| Title of training | SWAT Modelling. Fine tuning data inputs and performing calibration |
| Venue | IWLMP at Icarda office Amman, Jordan |
| Dates | 24-29 November 2015 |
| Duration (days) | 6 |
| Duration (class hours, field hours) | N/A |
| Participants (females, males) | male: 1 |

Annexes

A. Training detailed agenda

Tuesday, 24th of November, from 10.00 AM to 5.00 PM

- 10.00 AM Meeting between trainers, Claudio Zucca and Stefan Strohmeier, and trainee Walid ben khélifa. Work planning.
- 12:00 AM Review of input preparation and model setting done so far. Meteorological and DEM-derived data.
- 05:00 PM Finish

Wednesday, 25th of November, from 09:00 AM to 05:00 PM

- 09.00 AM Review of input preparation and model setting done so far. Vegetation cover data.
- 12:00 PM Work on calibration.
- 05:00 PM Finish

Thursday, 26th of November, from 09:00 AM to 05:00 PM

- 09.00 AM Review of input preparation and model setting done so far. Soil data.
- 12:00 PM Work on calibration.
- 05:00 PM Finish

Fryday, 27th of November, from 09:00 AM to 03:00 PM

- 09.00 AM Work with Dr. Zucca. Refinement of soil map and data, improvement of parametrisation.
- 03:00 PM Finish

Saturday, 28th of November, from 09:00 AM to 02:00 PM

- 09.00 AM Work with Dr. Strohmeier. Fine tuning calibration.
- 02:00 PM Finish

Sunday, 29th of May, from 09.00 AM to 03.30 PM

- 09.00 AM Meeting between trainers, Claudio Zucca and Stefan Strohmeier, and trainee Walid ben khélifa. Progress summary. Future tasks. Outline of article structure and selection of possible journals for submission.
- 11.00 AM Continue implementation work.
- 04.00 PM Wrap-up meeting.
- 05:00 PM Course finish

B. List of training participants

| Name | F/M | Affiliation |
|-----------------------|-----|-------------------------|
| Mr. Walid Ben Khélifa | M | INRGREF, Tunis, Tunisia |



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The CGIAR Research Program on Dryland Systems aims to improve the lives of 1.6 billion people and mitigate land and resource degradation in 3 billion hectares covering the world's dry areas.

Dryland Systems engages in integrated agricultural systems research to address key socioeconomic and biophysical constraints that affect food security, equitable and sustainable land and natural resource management, and the livelihoods of poor and marginalized dryland communities. The program unifies eight CGIAR Centers and uses unique partnership platforms to bind together scientific research results with the skills and capacities of national agricultural research systems (NARS), advanced research institutes (ARIs), non-governmental and civil society organizations, the private sector, and other actors to test and develop practical innovative solutions for rural dryland communities.

The program is led by the International Center for Agricultural Research in the Dry Areas (ICARDA), a member of the CGIAR Consortium. CGIAR is a global agriculture research partnership for a food secure future.

For more information, please visit
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