

## **4<sup>TH</sup> MEETING OF THE COST 718 WORKING GROUP I: DRAFT CONCLUSIONS** (Budapest, September 27<sup>th</sup> 2001).

The COST 718 Working Group I had its fourth meeting in September 27<sup>th</sup> under the leadership of A. Mestre (Spain), with the following agenda:

1. Welcome to the participants and approval of the agenda.
2. Review of the decisions adopted in the last WG1 meeting in Larnaca.
3. Brief presentations of the national reports and papers submitted by WG members, including those from the remote sensing subgroup.
4. Round table discussion of the coming activities and preparation of a detailed working plan for the WG.
5. Short term missions and study contract plans.
6. Publications of the WG in the Cost 718 framework.
7. Any other business.
8. Date and place of the next meeting.

A total of 13 members attended the whole meeting (see attendance list in the Annex I)

### **Discussion and decisions adopted:**

1. During the first session of the meeting, as a consequence of the decisions adopted in the last WG meeting in Larnaca, the following reports were presented by the different members from both the WG1 and the remote sensing subgroup (WG1.1):

Concerning the use and availability of meteorological information coming from different sources as input in agrometeorological models:

1.1) “ The quality concept of data from automated networks of meteorological stations and stations with manual recordings of measurements derived from a theoretical and philosophical point and leading to several practical recommendations. Use of the documentation system with the model AMBAV as an example” prepared by Tor Sivertsen (Norway) 55p.

1.2) “ The use of numerical weather forecast model predictions as a source of data for soil moisture modelling” prepared by Ari Venäläinen (Finland) 22p.

1.3) “Gridded data from numerical atmospheric models as input in agrometeorological models” prepared by B. Gozzini (Italy), F. Meneguzzo (Italy) and M. Pasqui (Italy) 27p.

Concerning the spatialisation of meteorological variables used as inputs in models:

1.4) “ Report on temperature spatialisation” by B. Gozzini and Alfonso Crisci (Italy) 8p.

1.5) “Spatialisation of solar radiation –draft report on possibilities and limitations” by Piotr Struzik (Poland) 12p.

1.6) “ Rainfall spatialisation “ by Antonio Mestre (Spain) 22p.

Concerning the use of remote sensing information in agrometeorological models:

- 1.7) Report on "The application of remote sensing data as inputs for the SWAP 2.0 model", prepared by Allard de Wit (Netherlands), Kees van Diepen (Netherlands), Joop Kroes (Netherlands), Josef Eitzinger, (Austria), Valentin Kazandiev (Bulgaria) and Leonidas Toullos (Greece) 11p.
  - 1.8) Report on "The possibilities for use of satellite information as an input for CROPWAT software – Preliminary study", prepared by Piotr Struzik (Poland) 23 p.
  - 1.9) Report on "Simplified methods to estimate solar radiation using satellite images available on INTERNET", prepared by Giampiero Maracchi (Italy) 8p.
  - 1.10) The preliminary report on the "Estimation of crop biophysical variables and assimilation in agrometeorological models" prepared by Mark Danson (U.K) 7p.
  - 1.11) A proposal report on the "Use of remotely sensed precipitation data for Leaf Wetness estimation: Methodological considerations and proposal for a validation campaign", by Stefano Dietrich (Italy).
  - 1.12) The study on the "Possibilities of deriving some useful agrometeorological parameters from the remotely sensed data (from current and new sensors) with the integration with other sources of information", prepared by Gheorghe Stancalie (Romania) and Antonio Perdigao (Portugal) (40p) was not presented due to the absence of both delegates but the report is already available.
2. In the second half of the meeting, there was a round table discussion about the tasks to be done by the WG before the next MCM and the role of each WG member. The following items were considered in the discussion: further activities to be done concerning availability of meteorological information for models coming from different data sources, activities in spatialisation and activities in remote sensing subgroup. The following decisions were adopted :
- 2.a) Activities concerning the availability of meteorological information for models coming from the different sources :
    - D.1 To integrate all the reports already produced into a publication that should be ready before the end of this year. In order to prepare this publication all the rapporteurs should send the final version of their reports to the WG1 chairman.
    - 2.b) Concerning further activities in spatialisation of meteorological variables used as input in agrometeorological models there were adopted the following decisions:
      - D.2) A state of the art of spatialisation techniques for some meteorological variables used as input in agrometeorological models will be prepared for publication merging the available reports for rainfall, temperature and solar radiation from Cost 718 WG1 (once revised and completed) with those that will be produced by Cost 719 WG2.
      - D.3) After discussing about the realisation of an exercise of intercomparison of different techniques of interpolation for the meteorological variable daily precipitation (spatial scale around 10x10 Km) over a set of testing areas, a set of countries ( Poland, Denmark, UK, Spain, Finland and Italy ) expressed initial interest in participating in such an exercise. A

draft proposal of this comparison study will be prepared by the WG chairman Antonio Mestre and distribute to all the potential participants before the end of November.

2.c) Activities in remote sensing (RS subgroup WG1.1 under the coordination of Dr. L. Toullos).

The following decisions (commitments and deliverables) concerning WG1.1 for the next MCM (10-12 April 2002, Portugal) were adopted by all members of the WG1:

D.4) To prepare an introductory report on “Solar radiation measurement and modeling. - A general overview of present state and problems related to conventional and remote sensing methods” (by P. Struzik, B. Seguin and G. Maracchi).

D.5) To examine and report the problems concerning “The applications of RS data as input for the WOFOST model” (by Allard de Wit).

D.6) To integrate the preliminary report on the "Estimation of crop biophysical variables and assimilation in agrometeorological models" (by Mark Danson).

D.7) To report the “Assimilation of remote sensing data in crop models with some recent examples of applications with airborne and satellite data”, (by B. Seguin).

Concerning the previous decisions 6 and 7 it was discussed that the WG 1.1 should also concentrate into the biophysical variables which can be estimated by the remote sensing means, and an expert meeting should be organized in the future for this task.

D.8) To integrate all the reports of the WG 1.1. (and WG1) into a publication. So, all rapporteurs should send the final version of their reports to the WG 1 and WG 1.1. leaders into the next two months and before the ad-hoc working group meeting of the Action (15-16 November 2001).

D.9) To activate a task to examine the possibilities for a project proposal, focusing on the use of remotely sensed precipitation data for the estimation of leaf wetness, by means of a physical model (proposed by Stefano Dietrich). It will include a validation campaign use of high quality polarimetric radar measurements and very dense network of agrometeorological ground stations. An expert meeting will be held in Florence, in the beginning of the next year, to plan the above activities.

D.10) The study on the “Possibilities of deriving some useful agrometeorological parameters from the remotely sensed data – from current and new sensors – with the integration with other resources of information”, prepared by Gheorghe Stancalie and Antonio Perdigo, will be presented during the next MCM in Portugal.

### 3. Other business: Short term –missions.

D.13) A short term mission of one week of duration is proposed to the MCM for the delegate of Norway Dr. Tor Sivertsen (request for visiting INRA- Avignon (France)).

4. Date and place of the next WG1 meeting: Next meeting of the WG will be held in Ponta Delgada -Azores Islands (Portugal) in April 2002.

**ANNEX 1: LIST OF ATTENDANTS TO THE WG1 MEETING:**

Tor Sivertsen (Norway)

Ari Venäläinen (Finland)

Hartwich Dobestch (Austria)

Leonidas Toullos (Greece)

Stefano Dietrich ( Italy)

Piotr Struzik (Poland)

Allard de Wit (Nederland)

Bernard Seguin (France)

Giampiero Maracchi (Italy)

Antonio Mestre (Spain).

Bernardo Gozzini (Italy)

Mark Danson (United Kingdom)

Michel Steffensen (Denmark)

## **ANNEX 2: TEMPTATIVE TIME-TABLE**

Temptative time-table of the main tasks to be carried out in WG1 up to the next MCM:

- 1) Prepare the draft reports that were decided to make in Budapest meeting. Before 28<sup>th</sup> of February 2002. (every WG reporteur).
- 2) Circulate the reports amongst the WG members for suggestions and comments . Before 15<sup>th</sup> of March 2002. (every member).
- 3) Send the final reports to the WG chairman for compilation purposes. Deadline: 1<sup>st</sup> of April 2002. (every WG repporteur).
- 4) Prepare a compilation of the reports that will be distributed before the next MCM and presented in Ponta Delgada meeting. By 5<sup>th</sup> April 2002 (A. Mestre).
- 5) Send to the WG chairman the final version of the reports already produced for publication. Before 15<sup>th</sup> of November 2001. ( Every WG repporteur).
- 6) Prepare a project proposal concerning intercompariosn study of techniques for rainfall spatialisatation. By the end of November 2001 ( A. Mestre).