WMO OMM

World Meteorological Organization
Organisation météorologique mondiale
Organización Meteorológica Mundial
Всемирная метеорологическая организация
المنظمة العالمية للأرصاد الجوية
世界气象组织

WEATHER CLIMATE WATER
TEMPS CLIMAT EAU

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الرسالة رقم: 21452/2017/ETR/CRS-1117 12 حزيران/ يونيو 2017

عدد المرفقات: 2 (متوافران بالإنكليزية فقط)

الموضوع: الدورة التدريبية الدولية بشأن تقديم الخدمات المناخية للوقاية من الكوارث، في الفترة 23 تشرين الأول/ أكتوبر - 10 تشرين الثاني/ نوفمبر 2017 (التعلم عن بعد)، والفترة 20 تشرين الثاني/ نوفمبر – 1 كانون الأول/ ديسمبر 2017 (التعلم في فصل دراسي)، فلورنسا، إيطاليا

الإجراء المطلوب: للعلم واتخاذ الإجراء المناسب، في أقرب وقت ممكن، **على ألا يتجاوز ذلك 16 تموز/ يوليو 2017**

تحية طيبة وبعد،

يسعدني أن أقدم لكم معلومات عن الدورة التدريبية الدولية بشأن تقديم الخدمات المناخية للوقاية من الكوارث، وهي أول لقاء في البرنامج التدريبي المعني بالتكيف مع تغير المناخ والحد من مخاطر الكوارث في مجال الزراعة (PACC/RRC)، بتمويل من الوكالة الإيطالية للتعاون الإنمائي (AICS) وبإشراف المنظمة (WMO)، بالتعاون مع مركز التدريب الإقليمي في إيطاليا (IBIMET-CNR) والمركز الإقليمي للتدريب على الأرصاد الجوية الزراعية والهيدرولوجيا التطبيقية وتطبيقاتهما (AGRHYMET). وستبدأ الدورة في الفترة 23 تشرين الأول/ أكتوبر - 10 تشرين الثاني/ نوفمبر 2017 (التعلم عن بعد)، والفترة 20 تشرين الثاني/ نوفمبر – 1 كانون الأول/ ديسمبر 2017 (التعلم في فصل دراسي)، ببلدة سيستو فيورانتينو بفلورنسا، إيطاليا.

والهدف العام لهذه الدورة التدريبية هو توطيد قدرات البلدان الأعضاء في اللجنة الدائمة المشتركة بين الدول لمكافحة الجفاف في منطقة الساحل (CILSS)/ الجماعة الاقتصادية لدول غرب أفريقيا (ECOWAS) على إعداد خدمات مناخية فعالة للحد من مخاطر الكوارث والتكيف مع تغير المناخ. أما الهدف المحدد للدورة فهو بناء قدرات المرافق الفنية الوطنية على تحليل ظواهر الطقس المتطرفة وإنشاء شبكة موحدة تجمع المؤسسات العلمية والفنية للعمل بمنهجيات مشتركة وإعداد معلومات موضوعية ومتناسقة. والغرض من ذلك هو نقل الدراية الفنية وتقاسمها، وتوسيع نطاق التعاون على الصعيدين الوطني والإقليمي، وتعزيز التبادل والتعاون من خلال تطبيق نواتج البحوث والأدوات التشغيلية.

وهذه الدورة موجهة للفنيين والخبراء في المرافق الوطنية للأرصاد الجوية الهيدرولوجية والمرافق الفنية الأخرى المعنية بالحد من مخاطر الكوارث. كما أنها موجهة تحديداً للمتخصصين في الأرصاد الجوية وعلم المناخ وفي الأرصاد الجوية الزراعية والهيدرولوجيين، وهي تهيئ بيئة مواتية للأطراف الفاعلة في مجالات المناخ والهيدرولوجيا

إلى: الممثلين الدائمين لأعضاء الاتحاد الإقليمي الأول

صورة إلى: المستشارين الهيدرولوجيين للممثلين الدائمين

والزراعة لبلورة رؤية مشتركة ولغة موحدة. والبلدان المستهدفة هي البلدان الأعضاء في اللجنة الدائمة المشتركة بين الدول لمكافحة الجفاف في منطقة الساحل (CILSS)/ الجماعة الاقتصادية لدول غرب أفريقيا (ECOWAS). وستُقدم الدورة باللغة الإنكليزية. ومرفق طيه استمارة معلومات عن الدورة (المرفق الأول) تتضمن معلومات تفصيلية.

ويُرجى من المرشحين المهتمين استيفاء استمارة التسجيل (المرفق الثاني)، التي ينبغي أن يصدق عليها الممثل الدائم لبلدكم لدى المنظمة (WMO)، وإرسالها مباشرة وفي أقرب وقت ممكن إلى مركز التدريب الإقليمي في إيطاليا (IBIMET-CNR)، **على ألا يتجاوز ذلك 16 تموز/ يوليو 2017.**

وتفضلوا بقبول فائق الاحترام،

(إ. ماناينكوفا)
عن الأمين العام

Ref.: 21452/2017-L9 LCP

Ref.: 20653/2017-L4 DRA/ETR

WMO, CNR-IBIMET and AGRHYMET Regional Center

TRAINING PROGRAMME

Climate Change Adaptation and Disaster Risk Reduction in Agriculture

International Training Course on

Climate Services for Disaster Prevention

Course Information Form

23 October – 10 November 2017 (Distance Learning)

20 November – 1 December 2017 (Classroom Learning)

Area di Ricerca CNR,
via Madonna del Piano, 10
50019 - Sesto Fiorentino (Florence) - ITALY

Background

The course is the first event of the Training Programme on Climate Change Adaptation and Disaster Risk Reduction in Agriculture (PACC/RRC), financed by the Italian Agency for Development Cooperation (AICS) and realized by WMO in collaboration the Regional Training Center in Italy IBIMET-CNR and the AGRHYMET Regional Centre. The Training Programme consists of 4 high education courses, 2 organized by the Regional Centre AGRHYMET in Niamey (Niger) and 2 by IBIMET-CNR in Florence (Italy), and a final conference in Rome.

The four training courses are:

- Climate services for disaster prevention (IBIMET-CNR, November 2017)
- Agrometeorological Services for agriculture and water use (AGRHYMET, February 2018)
- Methodologies for Climate Change impact assessment (IBIMET-CNR, June 2018)
- Agrometeorological Services for rainfed crops (AGRHYMET, October 2018)

Course Description

Extreme weather events are recognized to be a significant cause of loss of life and livelihoods, particularly in vulnerable countries and communities in Africa. The general characteristics of these events, i.e. intensity, duration, and probability of occurrence are shifting due to climate change, with consequent changes in the associated risks. To adapt to, or to address loss and

damage from, this changing risk it is necessary to understand the effects of climate change on extreme weather events and their impacts.

The general goal of this first training course is to strengthen the capacities of CILSS/ECOWAS Member Countries in developing effective climate services for Disaster Risk Reduction and Climate Change Adaptation. The specific objective of the course is the capacity building of national technical services on extreme weather events analysis and the consolidation of a network among scientific and technical institutions to work on shared methodologies and to create an objective and harmonized base of information. The aim is to transfer and share the know-how, to expand cooperation in sensitive areas to national and regional levels and to promote exchanges and collaboration through the application of research products and operational tools.

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The course is designed for technicians and experts of National Hydro-Meteorological Services and other technical Services involved in disaster risk reduction. The course will be realized in Florence, Italy.

The training course has two parts:

- Distance learning module lasting 3 weeks (mandatory) from 23 October to 10 November 2017
- Workshop lasting 2 weeks from 20 November to 1 December 2017

The distance learning module will be carried out through a Moodle platform. Moreover, students and teachers of the course will use the same platform to share educational material and fulfil training assessment procedures.

Expected Learning Outcomes

Through the course, participants will acquire theoretical and practical knowledge on current approaches to create and apply climate services in West Africa, with particular emphasis on:

- General aspects of the climatic analysis of extreme events (extreme rainfall and drought)
- Fundamentals of detection, monitoring and forecasting deep convective systems and supercells
- Fundamentals of detection, monitoring and forecasting dry spells
- Operational application of geo-statistical and spatial analysis tools for climatic risk analysis and assessment

Target Audience

The course is specifically designed for meteorologists, climatologists, agro-meteorologists and hydrologists by creating an environment where climate, hydrology and agriculture actors can share a common view and develop a common language. Target countries are the CILSS/ECOWAS Member countries.

Course Content

The course will be organized in two phases:

1. *Distance Learning module on General aspects of Climate Services for disaster prevention*.

   This module aims to ensure that all the participants reach the same basic knowledge and comprehension of climate services. The module will last 3 weeks and will be realized on the Moodle distance-learning platform from 23 October to 10 November 2017.

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General aspects covered by this module will be:

- IRI/LDEO Climate data Library Tutorial
- Data analysis and manipulation using the open source programming language R
- Data analysis and manipulation with QGis

2. Workshop in Florence, Italy, 20 November to 1 December 2017.

2.1 Climate Services for Disaster Risk Reduction.
This module will address the following aspects:

- Climatic Risk typology (long and short term)
- Components of DRR (Alert, Management, Rehabilitation, Prevention)
- Components of Risk (Hazard, Exposure, Vulnerability)

2.2 Climatic analysis of Extreme events.
This module will address the following aspects:

- Geo-statistical analysis of extreme events
- Climate Extremes Indices (CLIMDEX)
- Extreme events trends
- Mapping of extremes

2.3 Detection, monitoring and forecasting deep convective systems and supercell storms.
This module will address the following aspects:

- Characteristics and Dynamics
- Numerical weather forecasts of extremes
- Dust storms
- Hydrological applications
- Operational products for early warning

2.4 Detection, monitoring and forecasting Dry Spells.
This module will address the following aspects:

- Rainfall
- Soil moisture
- Vegetation
- Mapping Extremes

2.5 Practical exercises (afternoons).

- Geo-statistical analysis with R and ClimDex software (days 1-5)
- Spatial analysis and mapping with QGIS (days 6-9)

A visit to the Osservatorio Ximeniano in Florence will be organized during the course.

Course Format
3 weeks of distance learning through the Moodle platform (from 23 October to 10 November 2017).
2 weeks (from Monday to Friday) of frontal/classroom course (20 November to 1 December 2017) in Florence, Italy, which includes lectures, group discussions, case studies, practical training sessions.

The programme allows for a 50:50 sharing of the training time between lectures and practical sessions. The training will be held at the Research Area of CNR in Sesto Fiorentino (Florence).

The scientific coordinator of the course will be Dr. Massimiliano Pasqui (IBIMET-CNR). Students and teachers of the course will largely benefit from the Moodle platform through which educational material will be shared and assessment procedures conducted.

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Evaluation

The training courses will be subjected to an effectiveness evaluation at multiple levels:

1. Each activity will be evaluated for the initial response of participants to the relevance, effectiveness, engagement, and impact of the intervention. This feedback will be gathered via surveys.
2. Participants will be awarded with badges for incremental competency development and certificates for completion of online, frontal, and follow-on activities. During the workshop learners will be evaluated through practical exercises and quizzes covering essential course content.
3. For the assessment of long-term impacts, participants will be requested to:
    - Share the course content in the participant's local institution and upload on the Moodle evidence documentation in multiple formats (photos, presentations, reports, video)
    - Prepare a poster (typical conference poster) presenting an application of acquired knowledge to a case study relative to their own country/area. Posters will be presented at the final conference. Posters will also be evaluated and will be used in the awarding of a badge

An award will be granted to the 4 participants that are deemed to have performed the best, one for each training course, including the follow-on activities, on the basis of the acquired badges and a qualitative assessment. The 4 winners will be invited to the final conference in Rome where they are invited to present, with a speech, their poster and training experience during the plenary session.

Instructors' institution, tentative names and topic

AGRHYMET	S. Traore	Operational products for drought early warning
CMCC	E. Scoccimarro	Extreme events analysis
CNR-IBIMET	M. Baldi	Climatic Extremes and Risks
CNR-IBIMET	V. Tarchiani	Disaster Risk Reduction
CNR-IBIMET	M. Pasqui	Geo-statistical analysis of extreme events
CNR-IBIMET	E. Di Giuseppe	Geo-statistical analysis of extreme events
CNR-IBIMET	E. Fiorillo	Spatial analysis
CNR-IBIMET	M. Bacci	Mapping with QGIS
CNR-IBIMET	R. Magno	Vegetation monitoring
CNR-IRPI	T. Moramarco	Hydrological applications
CNR-IRPI	L. Brocca	Soil moisture monitoring
CNRS-LOCEAN	M. Gaetani	Detection, monitoring and forecasting Dry Spells
Columbia University	M. Biasutti	Dynamics of deep convective systems
GET-CNRS	M. Grippa	Remote sensing for flood and drought monitoring
Polytechnic of Turin	M. Tiepolo	Disaster Risk Reduction and Planning

Language
Trainings will be conducted in English.
Tutoring in French will be guaranteed for practical sessions.
Training material will be available in both languages as far as possible.

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Participant Qualifications for Admission

- *Education Level:* to be specialized in meteorology, climatology, hydrology, agricultural sciences, or water management
- *Position/Task:* from National Hydro-Meteorological Services, National Agricultural Services, National Platforms for Disaster Risk reduction or Research Institutions from CILSS/ECOWAS Countries
- *Basic knowledge of geostatistical analysis (basic knowledge of R and/or QGis is desirable)*
- *Experience:* At least 3 years of relevant working experience in climatic risk analysis.
- *Language:* To be proficient in English

Application and Selection Process
Interested candidates are requested to complete the attached Participant Application Form which includes the nomination by the national Permanent Representative (PR) with WMO. Applications, as specified in the form, should be sent by the PR of the country to the IBIMET-CNR and will be forwarded to WMO ETR Office and the AGRHYMET Regional Centre.

The PR is kindly requested to submit up to 3 nominations, of which no more than 2 should be from the National Meteorological and Hydrological Service (NMHS). The PR is asked to ensure gender diversity. Participant selection will be made by the 3 project partners (WMO, IBIMET-CNR, AGHRYMET), with the goal of broadening national and institutional engagement.

At least 17 participants will be selected among nominations from PRs of Member countries. The selection will be based on the following criteria: geographical representativeness (in principle, 1 participant from each country), as well as the suitability of the participant based on the CV and nomination form. In the case that one or more countries do not propose participants, or the proposed participant from a given country does not meet the selection criteria, additional places will be allocated to the other target countries.

Up to 8 additional participants will be directly invited to each course, based on partners' consensual decision, coming from national, regional or international technical or research organisations of the target countries. Furthermore, up to 5 further participants can be accepted to participate in the course with funding from sources outside the project. The maximum number of participants is therefore 30 per training course.

Admitted participants are requested to prepare a report/presentation on their (or their Service's) experience on the themes of the course for the purpose of knowledge exchange. They are also requested to prepare a dataset of climatic data to be used for the practical sessions of the course.

The Institute of Biometeorology guarantees equal opportunity and accepts applications without distinction on the grounds of age, race, political, philosophical or religious conviction, gender or sexual orientation and regardless of disabilities, marital status or family situation.

Costs
Tuition is free for all the admitted participants.

Selected participants funded by the project will receive:

- A prepaid flight ticket
- Prepaid accommodation in Florence
- Transport from/to hotel/course venue
- Lunches and coffee breaks during the course
- Pocket money for other expenses not previously listed

Other participants admitted but not funded by the project have to cover their own travel and accommodation expenses. IBIMET-CNR will provide help for booking accommodation in Florence.

Deadline for Application: 16 July 2017

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International Training Course on

Climate Services for Disaster Prevention

23 October – 10 November 2017 (Distance Learning)

20 November – 1 December 2017 (Classroom Learning)

Florence, ITALY

Section A: Personal Details

1. Country: _____
2. Title: Mr/Ms/Miss/Dr/Prof/: _____
3. First Name (Given): _____
4. Family Name (Surname): _____
5. E-mail: _____
6. Telephone No: _____
7. Fax No: _____
8. Official Address: _____

   _____

   _____
9. Date of Birth: _____
10. Nationality: _____
11. Gender: ☐ Female ☐ Male
12. Passport Number: _____
13. Do you need an entry visa for Italy?: ☐ No ☐ Yes

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Section B: Qualification

14. Qualifications (Certificates, diplomas, degrees, etc.):

_____

_____

_____

_____

_____

_____

15. Please indicate your English language skills:

	Excellent	Good	Fair	Poor	Nil
Speaking					
Reading					
Writing					

16. What other WMO courses have you attended in the last 5 years?:

_____

_____

_____

_____

Section C: Work Experience

17. Present work:

☐ National Meteorological and/or Hydrological Service (NMHS)

☐ WMO Regional Training Centre (RTC)

☐ Other National Technical Service: _____

☐ University/Research Institution: _____

☐ Other (Please specify): _____

18. What is your job title?: _____

19. How long have you been in this position?: _____

20. Your qualification:

☐ Meteorologist

☐ Hydrologist

☐ Other (Please specify): _____

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21. Do you have experience in any of the following?

Climate analysis/modelling	☐ YES	☐ NO
Weather forecasts	☐ YES	☐ NO
Climate prediction	☐ YES	☐ NO
Hydrological monitoring/forecasts	☐ YES	☐ NO
Drought monitoring/forecasts	☐ YES	☐ NO

Section D: Rationale for Applying

22. How are you involved in Climate/Meteorological applications for disaster risk reduction in your position?

_____

_____

23. Why do you want to attend this course? Be specific about how it will help you in your work.

_____

_____

_____

_____

_____

_____

24. Statement by candidate on how she/he anticipates using the knowledge and skills from this course in the work after the course?:

_____

_____

_____

_____

_____

_____

Section E: Travel and local costs and Insurance

25. How will your travel and local costs be covered?

☐ Asking for support by PACC-RRC Programme: _____

☐ Your Administration: _____

☐ Other sponsors: _____

26. Insurance

I fully understand that the course organizer does not take any responsibility for risks such as loss of life, accidents, illness, loss of property etc.

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Personal statement

I hereby declare that the information given above is true, correct and complete. I shall bear the responsibility for the above information. I pledge to observe all the Italian laws and will respect the local customs and follow the seminar regulations during my stay in Italy for the training seminar.

Place: _____ Date: _____

Signature of the Candidate: _____

Endorsement of the Permanent Representative with WMO

1. Name of Organization: _____
2. Name and Signature of the Permanent Representative with WMO:

   Name: _____

   Signature: _____
3. Official Seal: _____
4. Date: _____

Please include a short CV (maximum 5 pages) with this form

To be completed and returned by email **not later than 16 July 2017** to the following recipients:

To: IBIMET-CNR - f.caporossi@ibimet.cnr.it, v.tarchiani@ibimet.cnr.it

Copy: AGRHYMET Regional Center - e.sarr@agrhymet.ne

Copy: WMO-ETR Office - tra@wmo.int

Contacts:

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