# SEEVCCC\* Consortium AGREEMENT

#### 1. Preamble

This Agreement specifies the conditions for the collaboration between the SRNWP-SEEVCCC\* Consortium Members. This undersigned Agreement is based on the Technical Annex to the existing Memorandum of Understanding between the South-East European Virtual Climate Change Center (SEEVCCC) and its partners, on the foundation of the SEEVCCC\* Consortium, initially signed on 24 September 2012 by the National Meteorological and Hydrological Services (NM(H)Ss) of the Republic of Albania, the Federation of Bosnia and Herzegovina (Bosnia and Herzegovina), the Republic of Srpska (Bosnia and Herzegovina), The Former Yugoslav Republic of Macedonia, the Republic of Montenegro and the Republic of Serbia.

In pursuance of the Strategic Plan and decision of the World Meteorological Organization (WMO), the Members of the SRNWP-SEEVCCC\* Consortium, hereafter referred to as "Members", represented by their respective directors/general directors,

### **Emphasizing**

- That, despite significant progress in improving meteorological, climate and hydrological services, societies and national economies are increasingly vulnerable to natural atmospheric, hydrological and climate-related hazards, climate variability and change;
- That weather systems and patterns do not recognize national boundaries, and that no country can be fully self-sufficient in the provision of all weather, water and climate related data, information and services;

#### Recognizing

- the importance of regional cooperation in the field of numerical weather prediction and modelling in South East Europe;
- the fact that the Agreement signatories use the same numerical weather prediction models for operational purposes;
- the need to facilitate research and development activities of NWP models for the South East European region;
- that maintenance and further development of the state-of-the-art numerical weather prediction models require substantial investments, in particular in terms of human resources, and that such tasks and investments are better shared for mutual benefit;

#### Wishing

to develop their individual capabilities in order to bring the best available quality and efficiency in generation and dissemination of meteorological, hydrological and climate analyses, forecasts, advisories and warnings, as well as in providing other services to users in their countries;

- to face collectively the challenge of providing the best possible weather forecast services with optimized human and financial resources in their ambition of being the national excellence and international reference in meteorology;
- to contribute to the maintaining of their NWP quality and associated knowledge;
- to share collective effort to facilitate research and development in NWP;
- to technically cooperate to achieve the highest standards of operational NWP and applications,

Have reached the following agreement on:

### 2. Goals and objectives of cooperation

- 2.1. The long-term objective is to provide the SEEVCCC\* Consortium Members with a state-of-the-art NWP system based on the application of the NMMB model (provided by NCEP¹; major developer: Zavisa Janjic), for both Research and Development activities and Operational usage for meteorological and hydrological forecasting, for other applications driven by the atmosphere, and for corresponding warning services.
- 2.2. Specific goals and objectives are the following:
  - to improve the accuracy of the meteorological forecast and warning services delivered by all Members to their users, through the operational implementation of a NWP system based on the application of the NMMB model;
  - based on NMMB, to further improve the prediction of severe weather phenomena, including other environmental forecasts (hydrology, aerosol, etc.);
  - to participate to a common NWP efforts of all Members with the aim of obtaining and unifying the "NWP culture", starting from data monitoring up to response through modeling efforts to forecasters' and users' requirements;
  - to perform research and development mainly focusing on the issue of their operational applications, with the aim of continuously improving the quality of products, measured by appropriate statistical scores as well as by the capacity to forecast severe weather events;
  - to share the available expertise, data, modelling and technical resources in NWP;
  - to reduce overlapping in NWP with the other Members and thus to reduce costs;
  - to organize trainings for different areas related to NWP;
  - to enhance in general the operability in NWP in the region.

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<sup>&</sup>lt;sup>1</sup> National Centers for Environmental Prediction, USA

2.3. The cooperation shall be based on an agreed strategic mid- to long-term framework and shall be open to cooperation with other SRNWP Consortia.

#### 3. Collaboration

- 3.1. The details of the work will be specified in a common annual/mid-term research/work plan, including identified deliverables and milestones, and its realization jointly evaluated at least once a year. The plan shall be renewed every year.
- 3.2. The Coordination Experts Team shall prepare the common research/work plan in very definite terms, and establish a close cooperation, including periodic discussions and meetings. Other practical actions may also be delegated to the Coordination Experts Team (logo, internet site, etc.).
- 3.3. SEEVCCC\* Consortium Council composed of the Directors of each of the Members shall annually decide on the common research/work plan to be carried out.
- 3.4. A number of activities shall be carried out within the collaboration stipulated in this Agreement. Each activity shall have specific objectives and targets formulated, following the annual and mid-term plans. For this purpose, the Coordination Experts Team will create, upon specific needs, ad-hoc Working Groups for different NWP issues such as: Data assimilation and use of observations; Diagnostics, validation and verification; Dynamics and lateral boundary conditions; Physical parameterization, etc. The work of the Working Groups shall be supervised by the Coordination Experts Team.
- 3.5 Terms of reference of the Council and Coordination Experts Team are given within Appendix 1 and Appendix 2 of this Agreement, respectively.

#### 4. Commitments

- 4.1. The SEEVCCC\* Consortium Members shall contribute in research and development on a self-funding basis and available resources, and in accordance with the annual common research/work plan (paragraph 3.1).
- 4.2. All joint code developments that are validated and introduced in any national research or operational implementation should be made available as part of the SEEVCCC\* Consortium Common Codes.

#### 5. Intellectual Property Rights

- 5.1. SEEVCCC\* Consortium Common Codes shall be jointly owned by the Members of the Consortium as the Parties to this Agreement.
- 5.2. For the collaboration under this Agreement, a list of all shared codes shall be drawn up and maintained by the Coordination Experts Team with appropriate reference to the owners and the rights granted by the owner to the Consortium Members.

#### 6. Consortium Name

6.1.													
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#### 7. Amendments

7.1. Any amendment to this Agreement shall be in writing and signed by all Parties.

#### 8. Governing

- 8.1. SEEVCCC-SRNWP Consortium Council, composed of the Directors of each of the Members (or their representatives), is hereby established as the supreme governing body of the SEEVCCC-SRNWP Consortium. It represents its Members and is responsible for the implementation of this Agreement including the definition, follow-up and evaluation of all activities of the SEEVCCC-SRNWP collaboration. Terms of reference of the Council shall be defined in a separate document.
- 8.2. Coordination Experts Team shall be composed of two nominated experts from each of the Members. According to paragraph 3.2, the Coordination Experts Team shall prepare the common research/work plan and carry out other delegated actions.

## 9. Membership

This Agreement is also open for signature to new Members which are NM(H)Ss of WMO and which are willing to cooperate and contribute to all objectives defined in this Agreement.

#### 10. Entry into force, duration and termination

- 10.1. This agreement shall be effective upon the date it has been signed by Members.
- 10.2. Any Member may terminate this agreement upon three months written notice.

#### 11. Language

This Agreement and any circumstances in connection therewith shall be subject to the English language. Should this be translated into any other language and the translation held contradictions relative to the English version, the wording of the English version shall be valid.

# 12. Signatories

NAME	NM(H)S and Country	DATE	SIGNATURE
NAME	NM(H)S and Country	DATE	SIGNATURE
NAME	NM(H)S and Country	DATE	SIGNATURE
NAME	NM(H)S and Country	DATE	SIGNATURE
NAME	NM(H)S and Country	DATE	SIGNATURE

### **SEEVCCC\* Consortium Agreement**

# Appendix 1

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# COUNCIL OF SEEVCCC-SRNWP CONSORTIUM TERMS OF REFERENCE

- 1. The Council shall inform the Consortium Members on the issues related to the status of implementation of the Agreement.
- 2. The Council has the power to:
  - 2.1. Approve the collaborative frameworks, annual/mid-term work plans/programmes;
  - 2.2 Elect by confidential ballot a Chair of the Council among their number to be known as the Chair of the Council of the SEEEVCCC-SRNWP Consortium, to serve for a period of two (four) years, subject to remaining a member of the Council.
  - 2.3. Establish, dissolve and approve the membership in the Coordinating Expert Team and appoint the Chair of the Coordinating Expert Team, which shall draft, manage and monitor the collaborative framework and work plans/programmes activities;
  - 2.4. Set up and dissolve Working Groups in specific areas, and determine their terms of reference and membership.
- 3. The Council shall approve requests for new members (status of Full Members, Associate Members).
- 4. The Council shall, on behalf of the Consortium, decide and oversee the negotiation, and development of the collaborative framework agreements with other consortia and partners.
- 5. The Council shall specify its Rules and Procedures which would closely define the issues related to the working and voting methods of the Council.
- 6. The Council shall meet at least once a year.

# **SEEVCCC\* Consortium Agreement**

# **Appendix 2**

# COORDINATATION EXPERTS TEAM OF SEEVCCC-SRNWP CONSORTIUM TERMS OF REFERENCE

- 1. The Coordination Experts Team (CET) of the SEEEVCCC-SRNWP Consortium prepares annual/med-term work plans and programmes relating to the agreed strategic framework of cooperation, coordinating and monitoring its implementation.
- 2. The CET reviews and updates the Consortium strategic objectives, taking into account Members' requirements, and advises Council on any cooperation or other strategic issue and priority, including new proposed activities or perspectives, proposed by the Members and Associated Members.
- 3. The CET prepares Annual Consortium Reports about the work plan and the realization of the commitments of Members and Associate Members, and submits its recommendations to the Council.
- 4. The CET reports to the Council and meets at least twice a year including on-line meetings.