

## **Comments of the Polish Hydrological and Meteorological Service on the Draft WMO Strategic Plan 2012-2015, version 5 January 2010**

Experts of the Polish Hydrological and Meteorological Service after having read the draft WMO Strategic Plan for 2012-2015 are of the opinion, that draft version dated 5 January provided by WMO for review and comments had been developed very carefully and is a highly professional document. It analyses in short, but at the same time in a detailed manner a wide range of conditions, opportunities, challenges and WMO prospective directions of activities, as well as those facing particular hydrological and meteorological services in WMO Member States. In general, we accept the draft Strategic Plan, wishing only to provide some comments to specific document's provisions, which, in our opinion, would allow for their more detailed presentation in the Plan, or for drawing attention to a few additional aspects:

Page 2 of the document:

Foreword and Executive Summary – unfortunately not available in the version presented to review

Page 4:

The information on benefit to cost ratio seems to be very interesting, however, no reference is indicated in the text which provides to uncertainty.

Page 10:

Strategic Priorities Areas of WMO for Financial Period 2012 – 2015

Strategic Priority Area 1: Global Framework for Climate Services

In our opinion some aspects of the GFCS development are missing:

- the strengthening of cooperation between NMHS and other research units, e.g. universities and research institutes in particular countries,
- the strengthening of taking the decisions based on scientific knowledge in many areas of state activity,
- the development of know-how transfer to the areas where it is necessary.

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Strategic Priority Area 2: Disaster Risk Reduction

The phrase "...global loss of life ...has decreased markedly..." should be changed into "...global loss of life ...has decreased significantly ...". It is correct taking the statistical point of view into consideration, the value of the trend coefficient is considerable.

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#### Strategic Priority Area 4: Weather, Climate and Water Research, Predictions and Services

The presented concept proves very legitimate and sets its long term objective. One can justly note that it requires not only a team of appropriate, skilled staff, but also very expensive computing power. Technological problems can arise, e.g. increase of computing power by one thousand times is feasible, however subject to providing modelers with access to the most powerful supercomputers worldwide. Organizational issue is to coordinate work of several teams, sometimes large and in numerous countries, on the contrary, very modest national centers. Thematic approaches like proposed improvement of models parameterization or change of thinking in making assumptions for climate and weather models construction represent a difficult problem to be solved. A mechanism is needed to manage efficiently so ambitious and, at the same time, advanced project. WMO should direct towards such a solution to ensure that the whole international community can benefit from its achievements. Such an approach has to be followed by respective technological and thematical support that will enable member countries to be up to the concept, and that every country has equal development opportunities.

Additionally, the fact that results of the activities realized within the area of Weather, Climate and Water Research, Predictions and Services will contribute to GFCS should be strongly underlined.

The phrase "The unified approach to prediction and services ..." should be enriched with some details:

- including for example statistical and dynamical downscaling
- climate information from global and regional to local scale.

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#### Improving Service Quality and Service Delivery

Setting up an appropriate communication method with users of the products, in particular from political and business communities, refers to the Organization and all Members. The appropriate contact methods with users are searched all the time, in order to listen attentively to their expectations and needs. However, we believe that they should be made aware that

besides a huge technological advances and significant progress in scientific research, constrains and limitations of meteorological and hydrological services in their forecasting and warning capacity against weather phenomena still exist.

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Advancing scientific research and application as well as ...

1. The great part of European NMHSs maintain research and development departments. All services care about funding of their operation as well as about their development and keeping appropriate scientific research contacts. Thus the attention should be paid to two directions of the further development. Those research projects should be developed which result in implementing their results into operational service. It can substantially improve the capacity of the service concerned and provides opportunities to acquire new customers followed by growth of socio-economic benefits and enhancement of its image. The second aspect of research units within NMHSs is the necessity to even closer cooperation with common acquisition and participation in international research projects. The cooperation level in some areas can be considered as quite satisfactory, but you have to make every effort to be increased.

2. In our opinion an explicit reference is missing to standardization and existing quality management systems in particular domains of NHMSs operation and activities. Implementation of quality management structure, especially in the basic systems of particular services, is of key importance. The most significant role is played by meteorological and hydrological support programmes which cover comprehensive technological chain from information source to final products package, including also data quality monitoring system in operational and historical mode. An agreement concluded with the International Organization for Standardization (ISO), considering WMO as international body dealing with normalization, authorizes WMO to develop concrete normalization guidelines.

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#### Strengthening Capacity-Building

Support of meteorological and hydrological services from least developed countries should be provided not only in the form of the specific technological assistance, but also in the political field. One should be aware of the role played by WMO as one of the United Nations agencies. As such, WMO would be in a position to support particular National Meteorological and Hydrological Services in their efforts to obtain funds and loans from the World Bank. Such

support would help restructure and modernize observing and measurement services. The other benefit would be increased political role of the Organization what is continuously encouraged by the Executive Council.

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#### Building and enhancing partnerships and cooperation

Any activities leading to increase the number of members in specialized organizations closely collaborated with WMO, e.g. EUMETSAT or ECMWF should be promoted as greatly useful. The focus is on national meteorological services of countries pretending to join such organizations. They should make every effort to meet political and infrastructural accession requirements. On the other hand, it would be worth taking into account by such organization that new members will bring new opportunities. Its strengthening in some aspects can be valuable, especially in the context of long-term WMO policy within weather, climate, water and environmental prediction.

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#### Strengthening good governance

1. Proper internal and external communication in hydrological and meteorological services is in our opinion one of the fundamentals that benefit more efficient activities. Every service should do its best to implement the best method of internal communication between observing, research, forecasting and marketing divisions. External Communications means continuous development of reciprocal contacts on the basis of both formal and informal meetings of different levels services' representatives both their directors and scientists, forecasting or observing representatives. Cooperation within programmes as well as in regions is useful. Outstanding example can serve the recent events development in Europe, e.g. South Eastern Europe such as establishment of South-Eastern European Climate Outlook Forum and regional projects involved in the Forum.

2. The scope of activities carried out by Technical Commissions, Regional Associations and a large number of connected working groups, task and research teams within WMO is extremely broad and diverse. Due to this fact a system of internal Communications should be improved between these bodies themselves and Members, mainly information on the obtained results should be provided. There are some groups within the Organization, e.g. INTADs within RAs which can provide some assistance and whose activities can significantly improve the information flow within the WMO.

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Expected Results, Key Outcomes and Performance Indicators

ST 1 ER 1 KO 1.1.

Technology development and rapid access increase to new, improved products derived from new remote and observing systems makes the role of so called synoptic forecast still open, i.e. contribution of the forecasters to the process of developing final version of weather forecasts and warnings.

The last sentence “the Climate User Interface Programme ...” is repeated.

ST 2 ER 3 KO 3.3.

The proposal for KPI: The number of NHMSs successfully implementing the elements of Quality Management System

ST 2 ER 5 KO 5.4.

TIGGE (THORPEX Interactive Grand Global Ensemble) is a kind of future global forecasting system origin. However, some potential concerns may arise that making ensemble forecasts produced by NMSs free available not for research, but for operational purposes can prove difficult, even due to commercial aspirations of services. The problem should be explained as soon as possible in the context of WMO global policy on meteorological information exchange.

ST 3 ER 6 KO 6.2.

Support by WMO of National Meteorological and Hydrological Services in the Least Developed Countries should be provided not only in the form of the specific technological assistance, but also in the political field. One should be aware of the role played by WMO as one of the United Nations agencies. As such, WMO would be in a position to support particular NMHSs in their efforts to obtain funds and loans from the World Bank. Such support would help restructure and modernize observing and measurement services. The other benefit would be increased political role of the Organization what is continuously encouraged by the Executive Council.

ST 3 ER 6 KO 6.3.

The appropriate system for training courses evaluation carried out within the Organization which are quite often funded should be developed. The optimal solution should be achieved, both as professional and financial problem is concerned. Organization of workshops and training courses is crucially important from every point of view of hydrological and meteorological services operation and should be encouraged and continuously developed. Funds for supporting trainings designed addressed for the least developed services are also important, however following the support provided an evaluation mechanism should be in place to estimate usability of particular trainings in the operation of services concerned. When developing such evaluation system WMO can manage its funds more efficiently and skillfully dispose the funds enabling at the same time for identification of those activities and trainings which are the most needed from usefulness point of view. Another point of view or new proposed KPI the structure of age and gender of student attending the training courses can be. The greater participation of young people should be preferred as very inspiring factor the development of NMHSs.

ST 4 ER 7 KO 7.1.

The key role played by WMO in global platform of disaster risk reduction within International Strategy of Disaster Reduction (ISDR) is missing in the document.

ST 5 ER 8 KO 8.3.

In particular, increased efforts are needed to enhance WMO image, visibility and the role played by the Organization. To this end, communication services and media policy should be improved. The importance of NHMSs in particular Member States seems to be crucial. They should make every effort to publicize information on WMO mission and activities apart from enhancing their own visibility and distributed information on their works.

## **Comments on the draft new WMO Strategic Plan from DWD**

### **1. Top Priority Areas:**

We look at GFCS as the absolute top priority project of WMO which has still to be established! To our view the future existence and the role of WMO in UN depends on whether GFCS will be successful!

A lot of existing WMO programmes contribute already now to the efforts of adapting to climate variability and change (e.g. in the areas of improving agricultural practices, risk assessment of various hydrometeorological hazards, etc.). As the adaptation debate continues to gain momentum under UNFCCC and in national Governments, it would be essential to increasingly make clear which adaptation practices are supported by WMO's programmes.

The second major challenge is to foster a risk management and assessment which covers **all** hydrometeorological hazards (e.g. early warning, drought, flood, agromet).

### **2. Basic infrastructure and capacity building:**

In addition there are three basic tasks WMO has to focus on: 1) efficient technical systems and information platforms, 2) high quality observation networks and 3) capacity building, which is cross cutting activity and should be reflected in all areas.

### **3. Strategic Priority Areas:**

#### **Strategic Priority Area 2 (DRR):**

More emphasis should be placed on the fact that various Programmes in WMO contribute to this Area. WMO is also in a good position to further strengthen and consolidate its role in water-related risk management through improved hydrological analysis and forecasting, as well as integrated water resources management practices (flood and drought management).

#### **Strategic Priority Area 3 on Capacity Building:**

The last two bullets on strategic partnerships and on resource mobilization offer the biggest opportunity. The strengths of WMO's technical and scientific Programmes is an asset that should be increasingly used as a selling point to attract more third-party funding into WMO's capacity building efforts.

#### **Strategic Priority Area 4:**

Core programmatic areas of WMO are only touched on under SPA 4 (the **baseline programmes for monitoring and prediction** especially in the areas of weather and water). Huge deficits and even further deterioration of monitoring networks in these areas would necessitate a continued strategic focus in these areas.

SPA 4 further talks about "Integrated Weather, Climate and Water Research, Predictions and Services programme": Clarification is required on this. Increasing the linkages between the research communities in the meteorological, hydrological and climatological communities is desirable. It is unclear what changes this would imply with a view to the current structure of WMO programmes and Technical Commissions.

#### **Strategic Priority Area 5:**

WIS is not mentioned here. It should be outlined that WIS has to be further developed and implemented as a pre-condition for establishing WIGOS.

### **4. Organisation**

DWD feels a strong need for a better **Organisation of WMO**, which is not sufficiently reflected in the document:

The new strategic plan should be taken up as a chance for a better organisation of the WMO bodies. This process has just begun with a new structure of RA IV and recently RA VI establishing a steering management group and 3 WGs, supported by result oriented task teams. We miss a similar reorganisation process concerning the technical commissions. To our view a reduction of TCs from 8 to 4 is necessary which reflects the strategic priority areas: 1. Climate and Water, 2. Service Delivery, 3. Weather Climate and Water Research, 4. Technical Systems. The specific items will be worked out by OPAG Expert Teams while this structure has delivered an good performance in practice. Due to savings this structure will relieve a required coordination of programmes by the secretariat.

The WMO programmes should be more or less directly linked to one expected result, this will facilitate budgeting and steering.

### **5. ERs and KOs:**

**ER1:** It should be outlined more clearly here that quality management plays an important role for the improving process of high quality services.

**ER3:** This ER only deals with climate predictions and services. Key outcomes for nowcasting, limited area models and ensemble techniques which are of great importance for weather services and DRR have to be drafted and inserted here.

**ER 4, KO 4.1, KO 4.2.:** It should be expressed that systematic and sustainable high quality observations are a basic requirement for all kind of services such as day to day operational forecasts and warnings, aviation, climate change and adaptation process monitoring.



## COMMENTS ON WMO STRATEGIC PLAN dated 5 January 2010

**From: Markku Puupponen  
Chair, RA VI WG CH (Hydrology)  
2010-01-19**

After reading the draft SP, my main concern (as a hydrologist) was the minor hydrology input, especially at the actual outcome/performance level. Most of the comments below reflect this aspect, and only a few regional issues have been raised.

On the other hand, rather few regional processes have been mentioned in the current version. Their large scale addition can easily lead into long lists (of conventions, organizations, programmes and processes) in the text, or a high number of detailed KPI proposals.

### **Strategic Priority Areas 2012 – 2015** (5 areas identified)

The fact that hydrology and water resources community is very fragmented - both within WMO and in more general - should lead into efforts to strengthen the role and networking of Hydrological Services within WMO. Only about half of the member countries have defined a Hydrological Advisor even if almost all of the members have institutes that provide water related services. This challenge could (should) be seen as one strategic priority area (like the Global Framework for Climate Services). At least it should be a high priority issue in the strengthening of good governance.

### **Strategic Thrusts**

Advancing scientific research ...

- Does the last task proposal (bullet point) also cover the hydrological science and water resources aspects? Adaptation of water resources management will be a crucial issue for the mankind and the environment.

Building ... partnership ...

- The last bullet point includes the United Nations Economic Commission for Europe Convention on Long-range Transboundary Air Pollution. It could also include the United Nations Economic Commission for Europe Convention on the Protection and Use of Transboundary Watercourses and International Lakes. (or if there is a more wide convention related to water resources, it should be mentioned)

Strengthening good governance

- I refer to the comment on Strategic Priority Areas above.

### **Expected Results, Key Outcomes and Key Performance Indicators**

ER 1; GRDC (Global Runoff Data Centre) can be mentioned in KO 1.2.

ER2; if the contents of KPIs will be more specified, flood maps should be mentioned in KO 2.2 or 2.3.

ER 3 describes water related activities at a very general level (excluding KO 3.3). The climate change adaptation needs, related to water resources should be addressed (KO 3.2 or 3.3). The hydrology aspect could also be more visible in KO 3.1 and KO 3.4.

ER 4 describes hydrology and water resources activities only at a very general level, and they are not well represented at the KPI level (e.g. KO 4.3 brings weather and climate aspects into more detailed and concrete level).

ER 5 has not identified any KO/KPI related to hydrology and water resources.

ER 7; KO 7.1 could include a KPI on the relationship between the European Union and WMO (e.g. "Active partnership between the European Union and WMO in the implementation of EU Framework Programmes and Directives"). At least, this issue should be mentioned in the text.

ER 8 should support the strengthening of hydrological community within WMO (see comment on Strategic Priority Areas above). This can be developed into a KO or KPI.