

MCPAs AND POTENTIAL AREAS FOR SUB-REGIONAL COOPERATION

**NOWPAP/NEASPEC Joint Workshop on Marine
Biodiversity Conservation
and Marine Protected Area in the Northwest Pacific
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Russian party considers the cooperation both within each of the programs – NOWPAP and NEASPEC, respectively, and among their member countries and the programs themselves as necessary.

- It should also be noted that currently according to the most optimistic assessments less than 1% of the World Ocean is covered with the SPA network. The common understanding comes that there should be adequate management of resources use in coastal and marine zones, internal seas and high seas. That means that rather it is necessary to protect the key habitats, ecosystems, migration corridors, than try to protect concrete endangered species or only attractive land- and seascapes, *i.e.* to protect biodiversity effectively such an approach should be realized in high seas, coastal waters and coastal terrestrial ecosystems.

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Such effectiveness depends on a number of factors:

- Accounting of impact of catchment basins, which effecting through the river runoff and diffused (non-point) pollution sources;
- Nature of economic activity in the coastal zone, which directly impacts on the coastal waters and underwater landscapes;
- State of coastal water areas (estuaries, lagoons, shallow waters etc.), where the active economic activity is taking place;
- Impact of coastal waters beyond the national jurisdiction (200-miles zone).

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For the majority of coastal-marine protected areas of the world there is a serious problem of supporting the existing systems of management in the background of the growing use of resources and increasing complexity of regulatory issues between the conservation of natural resources and their exploitation. Finding the **right balance** in this issue becomes a priority.

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At the present time it is insufficient to achieve the objectives of preservation of the marine environment conservation through only strengthening the legal aspects of the MCPA activities and new policy in the sphere of their operation. The most fundamental changes are required in the issue of the so-called **reevaluation of values** - the analysis of not only what is conserved, but how we do it.

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The issue of providing **communication possibilities** is a fundamental part of effective MPCA management. Participants of this process should draw attention to the threats and promote understanding of the need for urgent action. Local and indigenous communities should be involved in the MPCA management. The most effective mechanism can be the “vertical” approach – through the joint implementation of MPCA management by governments and governmental institutions, and by delegating the management to local authorities.

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MCPAs can serve as a focal point for the development of **eco-tourism**: most visited such sites will want to return.

It should be noted that the increase in visitors could harm the protected area. So one must have the appropriate long-term plan and make informed decisions from the part of MCPAs aimed at the conservation of biological diversity.

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In order to improve the **coverage** and efficiency of the MCPA network management it is reasonable to use the approach to defining and setting boundaries and zoning of these areas, adapted to the specific conditions

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An appropriate **organizational structure** to avoid cross-sectoral conflicts, incompatibility of decisions/activities and inefficient management system as a whole should serve the improved management. Integration of different sectoral approaches, different levels of governmental management in the context of the “land-sea” boundaries, and engaging academia is the fundamental basis for the effective management and conservation of coastal and marine environment.

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MCPA management must ensure the **sustainable use of resources**.

Best available technology is not always the best way for human intervention – the **abilities of nature** can offer the best solutions for the regeneration of environmental conditions.

Ecosystem management is not running any specific species. So, in most cases, work on fisheries management is focused on a particular species, and such an approach usually does not work. It is a recognized approach where management decisions are take into account all the components and functions of ecosystems.

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The “**no take**” **principle** finds a common understanding for the MCPA part and it becomes clear, being applied more often. MCPAs work best as part of the developed network. At the same time, MCPAs non-optimal in size are less effective, especially in cases where the surrounding areas are subject for an excessive anthropogenic stresses.

Application of the **precautionary principles**, in particular, a comprehensive assessment of current and emerging risks and threats with the aim of adaptive control based on MCPA monitoring.

Providing of **openness and partnership approach** in planning and implementing of the MCPA management. The current scientific knowledge and the experience and traditions of local and indigenous communities should be used, as well as economic, social and cultural expectations of the people must be considered.

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Strategic **goal** of the **state environmental policy** of the Russian Federation is to ensure the constitutional right of citizens to a healthy environment and to maintain the integrity of natural systems through the rational use of natural resources and prevent pollution.

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At the present stage of the environmental policy of the Russian Federation is based on the existing Russian legislation, international regulatory acts, national strategic documents, such as:

- ✓ - Ecological Doctrine of the Russian Federation (2002);
- ✓ - The concept of the long-term socio-economic development of the Russian Federation for the period up to 2020 (2008);
- ✓ - Climate Doctrine of the Russian Federation (2009);
- ✓ - Water Strategy of the Russian Federation for the period up to 2020 (2009);
- ✓ - Energy Strategy of Russia for the period by 2030 (2009);

as well as other policy documents and legal acts determining the strategy of the state.

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In late 2011, the Government of the Russian Federation approved the **“Concept of development of the specially protected areas (SPAs) by 2020”**, which aims to develop the SPA system by improving the efficiency of the state management in the sphere of establishment and operation of the SPA system for sustainable development of the Russian Federation, to ensure environmental safety, protection of biological and landscape diversity, conservation and sustainable management of natural and cultural heritage.

To achieve this goal it is necessary to address a number of problems, including the continuation of forming a representative geographical SPA network, in the first turn establish new reserves and national parks, ensure effective protection of natural, historical and cultural complexes and objects in specially protected areas etc.

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Given the fact that in Russia the establishment and development of protected areas of different levels and regimes is considered among the main directions of the state policy in the field of ecology, and the development and improvement of the SPA network ensures the implementation of the Russian Federation international obligations in the field of environmental protection, the SPA Development Concept determines the main directions for the development of the system of SPAs of the federal significance, as well as measures to improve the efficiency of the state ownership in this sphere.

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Implementation of this Concept requires effective governance in this sphere, and is based on such principles as:

- Priority of conservation of natural, historical and cultural complexes and objects over other tasks of SPAs;
- Scientific basis of decision-making;
- Consideration of socio-economic aspects under management decision-making;
- Systemic and holistic solutions in the field of organization and functioning of the protected areas;
- Openness and availability of information in this field.

The Document notes that a number of current issues in the field of organization and operation of the SPAs require a clearer regulatory legal support. In this context, the Concept establishes the need to amend a number of laws and regulations (Federal Law “On SPAs”, the Forest Code). It provides for strengthening the administrative responsibility for violation of the protected areas regime, as well as the need to determine in the criminal law of the Russian Federation the notion for the significant damage at the specially protected areas and the criteria for its assessment.

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With regards to the establishment and regulation of MCPAs, the Concept, following the logic of the Federal Law “On SPAs” does not provide for such a specific mechanism. However, some SPAs are incorporating the marine areas. Thus, in the development of international cooperation the Concept establishes a plan for the development and agreement of draft international agreements, in particular, the agreement between the Russian Federation and the USA on the establishment of transboundary SPA as part of the “Beringia” National Park (Chukotka Autonomous District) and the respective national parks and other SPAs in Alaska (USA) (implementation period – 2013), as well as transboundary SPA as part of the State Natural Biosphere Reserve “Comandorsky” (Kamchatka) and the respective national parks and other SPAs in Alaska (USA) (implementation period – 2018). These transboundary SPAs include marine areas.

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However, the Plan of Implementation of the Russian SPA Development Concept included a number of measures for the development of particular MCPAs. The MCPAs planned by this Concept for the establishment include the reserves “Ingermanlandsky” (Leningrad oblast), “Srednekurilsky” (Sakhalin), “Medvezhji Ostrova” (Republic of Sakha (Yakutia)), national parks – “Beringia” (Chukotka), “Onezhskoye Pomorie” (Arkhangelsk oblast), “Shantarsky Ostrova” (Khabarovsk krai), “Samur” (Republic of Dagestan). Also the expansion of areas of existing reserves is planned, including through the joining or expansion of marine protected zones: “Sikhote-Alinsky” (Primorsky krai), “Astrakhansky” (Astrakhan oblast), “Dagestansky” (Republic of Dagestan), “Kandalakshsky” (Murmansk oblast), “Taimyrsky” (Krasnoyarsk krai) and “Magadansky” (Magadan oblast).

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Draft **Concept of MCPA Development** considers the basic principles and proposes the main directions for the development of the national system of marine and coastal SPAs pursuant to the Russian SPA Development Concept, based on the full range of specific features of MCPAs.

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The following MCPAs **functions** are defined as the major:

- ✓ conservation of biological diversity at the level of species populations and their habitats, ecosystems with their natural dynamics;
- ✓ maintenance of genetic diversity and productivity of exploited populations of marine organisms;
- ✓ compilation of the information on parameters of the coastal and marine ecosystems and their dynamics in time by organizing and carrying out scientific researches (fundamental, applied and engineering/ecological), ecological monitoring in the framework of the nation-wide environment monitoring system in order to provide information for the long-term planning of nature management and to forecast conditions for realization of other economic activities;
- ✓ conservation of natural, historical and cultural heritage;
- ✓ keeping of traditional methods of nature management;
- ✓ conservation of valuable land and water areas with significant potential of ecological functions (for example, recreational potential);
- ✓ effective environmentally sound use of biosphere sites, buffer zones and territories of the national parks;
- ✓ ecological education and participation in training of scientists and experts in the field of the environmental protection;
- ✓ participation in the state environmental assessment of projects and territorial location schemes of economic and other objects.

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To assess the functional importance of the MCPA status the following **criteria** are proposed:

- value of biodiversity indicators, number and status of taxa in the Red Book, flora and fauna representation (local, regional, global), value for maintenance of sustainable populations of exploited marine biota species, assessment of spatial effect of the protection determined by the presence in biota of the distant and near migrants and the species migrating seasonally and in other regular periods beyond the MCPA borders;
- size (area), territorial structure, character of the EPA borders;
- availability of the list of current and potential ecological functions, including ecological services at local and regional levels;
- assessment of ecological risk and its forecasting, dynamics of number of the factors limiting performance of any of the MCPA functions, including estimation of degree of threats from various types of nature management;
- assessment of MCPA place and value in the SPA network structure;
- assessment of level of anthropogenic stress on protected ecosystems of SPAs, including quantity of alien and synanthropic species, degree of their introduction into the natural coastal and marine ecosystems;
- estimation of the economic infrastructure development degree (road networks, settlements, industrial enterprises etc.) and population density within the SPA borders and at the adjacent area;
- level of the MCPA staffing, educational and qualification level of staff;
- assessment of participation (competence) of the MCPA personnel in decision-making on issues related to the environmental protection, nature management and ecological education at the regional level;
- participation in scientific programs of the Russian Academy of Sciences, federal and regional targeted programs, nature protection programs of the national and international NGOs.

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All MCPAs provide simultaneous performance of several functions, but no one provides realization of the whole complex of functions. Performance of the whole complex of functions is possible only in case of reasonably organized MCPA network.

In general, the polyfunctionality of SPAs, including MCPAs, is determined by the degree, to which the natural capacity of their territories remains by the time of the protection regime introduction. Reserves located in the areas distanced from industrial hubs and sites with intensive anthropogenic impact may be considered as implementing their functions completely. In case the disorder in SPA vicinities exceed critical level, the implementation efficiency of the most important – natural protection SPA functions – is decreasing.

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The following principles are required for planning, establishment and management of the MCPA system:

- Representation.** The MCPA system should reflect adequately the structure of the natural biological and landscape diversity;
- Diversity of forms.** The MCPA system includes various traditional and specific categories and types of SPA, forming in an ideal multifunctional hierarchical system;
- Conformity and advanced development.** Increase in loading on water area and the coastal zone should lead to adequate development of its MCPA system. The design and long-term development of the MCPA system takes into account dynamics of time and spatial regularity of formation of potential threats to biological diversity and habitats;
- Social and economic efficiency.** The MCPA system is the national property. It is organized and supported by the state in the interests of all society with a view of sustainable social and economic development. Using economic and political mechanisms, the state provides the long-term social and economic acceptability of the MCPA system, its inclusion into plans and programmes of the national and regional development and also in complex management of the coastal zones;
- Institutional integrity.** The MCPA system is an integral, parity and independent part of economic and social spheres of the state, regulated by the special legislation. The MCPA system represents the special economic form of nature management with a set of ecological, social, economic and information functions inherent only to it;
- Inter-regional associativity.** The organization of the MCPA system is based on the necessity of coordination of efforts on conservation of migrating species of the biological diversity the areal of which covers more than one MCPA and that is caused by lack of formal borders between specific water areas and their parts, and also by the ability of some migrants to overcome land barriers between the isolated water areas. This principle causes the necessity to include the national MCPA system into the international system of protection of biodiversity, regulated by the international legislation in this field.

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The Far East of the Russian Federation as a whole, and its south area in a first turn, is unrivalled among all regions of Russia in diversity of fauna and flora species, including in the coastal-marine zones. There are numerous unique natural objects, many of which are of international or federal importance, in this region. By virtue of the geographical location of the region, high activity of geological processes and specific climatic features, the unique natural complexes were generated, which are characterized by significant contrasts of landscapes, their complicated spatial combination and set of varied biological species. At the same time, results of inventory of the status of the plant species in the Red Data Books, carried out in MCPA, has revealed that over half of them are not covered by the protection. Thus the region economics has a strongly pronounced nature-resource orientation. Therefore the problem of maintenance of balance between economic development and conservation of the unique nature here is of particular relevance.

Within the sub-oceanic and oceanic areas of the Russian Far East, covering the coast of the Seas of Okhotsk and Japan, the SPA density is rather high, and the system of these areas is represented with the intricate nature-protection complexes. These areas as average are characterized by rather moderate land development (the primary landscapes are diffusion alternating with secondary ones), allowing for the establishment of new SPAs here relatively without aftereffects.

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In Primorsky krai the following protected marine areas and adjoining territories are located: the **Far-Eastern Marine Biosphere State Natural Reserve** with the area of 64,360 ha, **Marine Refuge** in the **Vostok Bay** water area – 1,820 ha, as well as **Refuge “Ostrovnoy”** – 9,400 ha. Besides, the **Sikhote-Alinsky State Natural Biosphere Reserve** has 2,900 ha of protected marine area, and also **Refuge “Goraliy”** has a kilometer long marine protected zone of 2,500 ha area. The terrestrial island systems and water areas of the coastal slope are protected within their borders. However, the progressing in recent years marine environment pollution, and uncontrolled use in some cases of the coastal slope biological resources require the allocation of new protected land and water areas of the complex.

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According to WWF, the marine and coastal SPAs of the federal significance in the existing SPA system are located unevenly and non-representatively in comparison with their continental analogues. This is one of the reasons for urgency in development and expansion of the MCPA network with a view of conservation of the unique natural heritage and diversity of coastal and marine ecosystems of Russia.

The problem of integration of MCPAs into the unique system of environmental activity management is highly important in the strategy for development and integration of MCPA types (federal, regional and international).

The baseline for its addressing is the improvement of regulatory legal base, economic and institutional mechanisms, which should stipulate for the relevant changes and additions.

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At our view, the possible directions for the development of cooperation under both the NEASPEC and the NOWPAP should be based on the effective implementation of the main objectives of the CBD 'Strategic Plan for Biodiversity 2011-2020' (6, 8, 9, 11 and 14), concerning the marine biodiversity and coastal and marine areas protection, as well as active utilization of the EBSA Criteria.

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One of the most priority directions of the MCPA activity is environmental monitoring and control of the state of protected marine and coastal ecosystems within the MCPA borders.

➤ Scientifically-based set (list) of indicators should reflect specificity of the MCPA environment, but can also include taxa of the regional, national and global significance for assessment of the marine areas or their resource capacity.

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The **priority** activity directions in the field of MCPA **monitoring** include:

- Study and monitoring of the state and operation of marine and coastal natural complexes and their particular components;
- Monitoring of natural restoration processes and reaction of the environment to the change in anthropogenic impact intensity;
- Monitoring of ecological consequences of climate changes;
- Monitoring of vegetation, fauna representatives of the MCPA marine and coastal natural complexes, including studying of processes and mechanisms of their biota adaptation to climate change;
- Monitoring of pollutants transportation by rivers;
- Monitoring of atmospheric deposition, in a first turn aimed at forecasting the eutrophication processes development in water areas (of special importance for the south Far East region);



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The **priority** activity directions in the field of MCPA **monitoring** include:

- Monitoring of impact of the World Ocean level raise on the state of the coastal-marine ecosystems and their particular natural components, including change in their spatial position and areas;
- Monitoring of the coastal marine communities near oil platforms and terminals;
- Monitoring of distribution and productivity of toxic microalgae adversely impacting marine organisms and human health due to increased rate and intensity of “water blooming” caused by the global climate changes;
- Monitoring of the invaded marine organisms and specificities of their acclimatization into local communities, in the first turn close to ports and oil terminals;
- Monitoring of intensity of synantropization in the vegetative cover of coastal-marine areas within MCPAs and associated communication corridors (trenches).

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In addition, there is a necessity in improvement of structure of informational data bases necessary for the MCPA management (that include, inter alia, climatic and socio-economic characteristics of territories in MCPA locations).

In general, the activity on MCPAs strengthening and establishment of their networks should currently include the scientific grounding and planning of establishment of territorial MCPA network, including their location, area sizes, optimization of boundaries and implemented functions aimed at the maximum possible protection of diversity of coastal and marine areas, to further establish the effective global network of marine protected areas.

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Thank You !

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