SOCIAL-ECOLOGICAL ZONING AS A METHOD OF ASSESSMENT OF SEVERITY OF TERRITORY ENVIRONMENTAL PROBLEMS

Dvinskikh S.A., Zueva T.V., Zelenina Y.C.

The objective of socio-ecological zoning is to identify the role of natural, technological and social factors in shaping people's health. The conditions for the formation of environmental concerns in Perm region. The technique of peer review acute environmental problems. Accepted: if human impacts on the edge correspond to the average (conditional rule), the ecological situation is characterized as satisfactory, with lower values of - favorable and permissible, for large values of - the intense and critical. The data obtained a map of "Socio-ecological zoning." Her analysis showed that the formation of public health plays a major role the social component of the ecological situation.

THE ROLE OF SPECIALLY PROTECTED NATURAL AREAS IN SOCIAL AND ECONOMIC DEVELOPMENT OF THE REGION

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Sustainable development of such mountain regions as the Altai Republic can only be realized in such a model in which the protection of biological and ethno-cultural diversity must be imperative of social and economic development in a developing market economy. The Altai Republic is notable for not only a wide range of specially protected natural areas' forms, but for those areas cover over a quarter of the territory of the Republic. Being compared agricultural land accounts only for 19% of the territory of the Republic. Agrarian orientation of the economy and the availability of a fairly large number of specially protected natural areas are the factors predetermining the necessity of forming such type of environmental management, when environmental protection activities are combined with the economic. In the Altai Republic the tendency to increase the number of protected areas persists, and thus increases their role not only in conservation but also in social and economic development throughout the region.

THE ENGINEERING-ORGANIZATION WAYS FOR PROVISION OF THE ECOLOGICAL SAFETY IN THE CONDITIONS OF THE MUNICIPAL SERVICES

N.V. Kolodnitskaya, V.F. Zheltobrukhov, G.K. Lobacheva, I.Zh. Guchanova

This scientific research work is devoted to the urgent ecological problems, which have nearly related to whatever built-up area. The authors have made the theoretical analysis of quality the roads in the conditions of the municipal services, have evaluated harm of the chemical substances for the health of people. The analysis of the state the green planting in the conditions of the industrial area is showed. The risk for the health of people exists because of shortage of the trees, bushes in Volgograd. The scientists invented and proposed the biological compound, which allows to remediate the contaminated soil, moreover, the experimental investigations are carry on for the reclamation and utilization of the ground alluvion by the biological technology. The invented substrate will be applied for the accomplishment and supply by the ecological safety in the conditions of the municipal services by the laying out of the parks.

Key words: ecological safety, ground alluvion, the city, landscaping, the risk for the health of people, the biological preparation, the recreative zone, the laying out of the parks, the geochemical barrier.

DEVELOPMENT OF INTERNAL AUDIT OF ENVIRONMENTAL MANAGEMENT ENTERPRISE

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From year to year in Russia a growing number of companies adopting the international standard ISO 14001:2004 for organization Environmental Management Systems (EMS) or Integrated Management System (IMS). Often this work is done formally, through certification, which limits the potential of EMS (IMS) to improve the performance of companies. This article shows how to enhance the impact of EMS (ISM) due to the development of internal environmental auditing / internal audit (VEA / VA) and convert it into an effective tool of management.

Key words: environmental management, environmental audit, internal audit.

THE EXPERIENCE IN ASSESSMENT AND MAPPING FLOOD HAZARD FOR THE TERRITORIES OF DIFFERENT HIERARCHICAL LEVEL (THE OB-IRTYSH BASIN AS A CASE STUDY)

A. Golubeva, N. Kurepina

The paper presents the major approaches and methods for flood hazard evaluation in the territories of different hierarchical levels. The estimate of the flood hazard in the basin under study was based on the obtained cartographic materials.

GIS FOR RISK MINIMIZATION OF NATURAL FOCAL DISEASES CONTAMINATION IN ALTAI KRAI POPULATION

N.Yu.Kurepina

The use of current computer technologies in medical-geographic and epidemiological research allows to reveal the ecological conditions for occurrence of natural focal diseases (NFD) in the population and to establish their spatial distribution. The paper presents the mechanism of geographical information systems (GIS) application in determination of NFD risk and its minimization.

SPECIAL PROTECTION TERRITORIES OF ALTAI KRAI AND REPUBLIC OF ALTAI WITHIN THE AREAS OF FALLING DETACHABLE PARTS OF CARRIER ROCKETS

There are several special protection territories (SPT) in Altai Krai and the Republic of Altai that number more than 60 species registered in the Red Book. These SPT are in the zones affected by rocket and space activity (RSA). The impact of falling stages of rocket carriers (RC) on SPT natural complexes and their components threatens to physical existence of plants or vegetation cover integrity.

PROVISION A MOISTURE OF SOILS OF THE SOUTHWEST PART OF TAPE BELT PINE FORESTS OF ALTAY REGION

Yu. Bekhovykh, A. Bolotov, S. Makarychev

Belt pine forests of Altay region are unique nature sanctuaries that predetermines insistent urgency of carrying out of detailed botanical, ecological, soil researches. In article data on productive stocks of the moisture of sod-podzol soils of Belt pine forests of Altay region in zones of dry and droughty steppe are presented and analysed. It is revealed, that the maximum stocks of a productive moisture for the period are observed April-September practically on all elements of a mesorelief in April or July, however are characterised by low absolute values, and in twenty centimeters a layer of soils droughty zones by September practically on all elements of a mesorelief become less stocks of a remote moisture. In all soil profile are formed critical conditions of growth of plants from the point of view dryness. The article data and conclusions can be used at planning reafforestation works in a southwest part of belt pine forests of Altay region.

AFTER FIRE CHANGES OF SOILS AND FEATURES OF THE FLORA BURNT PLAIN PINE FOREST ALTAI REGION

S. Makarychev, A. Malinovskich, A. Bolotov, Yu. Bekhovykh

In article changes of soil conditions of growth of plants after a fire and feature of flora of a fire of flat pine forests of Altay region *are* revealed. The regular frame of flora of a fire of pine flat woods of Altay region is analysed. Analysis ecological and chorological a spectrum of flora of a fire of pine flat woods of Altay region is made. In flora of a fire of pine forests of Altay region 295 kinds of the plants concerning 185 labours and 56 families are revealed. As a result of regular analysis leading families and labours are defined. In chorological to flora frame kinds of plants with extensive phylums of geographic ranges - Euroasian,Holartic and Asian, components of 68,8 % from all flora prevail.

ANTHROPOGENIC INFLUENCE ON SURFACE WATER OBJECTS OF THE CITY OF VOLGOGRAD

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The article considers the problem of surface waters pollution of the city of Volgograd, estimates the ecological state of water objects and proposes some recommendations aimed at improvement of ecological situation of water bodies. The article contains statistical data for the main pollutants of the water bodies under consideration, gives an overview of the measures taken for the normalization of the surface water bodies ecology of the city.

THE PROBLEM OF THE CHP CINDER UTILISATION AND ITS FEASIBLE SOLUTION

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This paper concerns the topical problem of reduction of the negative environmental impact of the energy industry's waste products. Feasible ways of the ash and cinder utilisation in building and methods of the low-dusting disposal and storage as granules are considered.

IMPLEMENTATION OF MUNICIPAL WASTE COLLECTION SYSTEM

L.N. Beldeeva

This paper is devoted to decrease negative influence of municipal waste on environment. For improve waste management practices in Altay region we propose the scheme of selective waste collection system for Novoaltaisk. The developed scheme can be used for working out of municipal regulatory legal acts and municipal target programs in Altay territory.

PROBLEMS OF THE RAW MATERIALS BASE ADAPTATION OF THE MECHANICAL RUBBER GOODS PRODUCTION CONCERNING OF THE FOREIGN EQUIPMENT

A.V. Bogaev, I.A. Lebedev, L.F. Komarova

In the article information about technical state of the chemical and petrochemical industry in Russia is showed. Problem of the raw materials base adaptation of the mechanical rubber goods manufacture is described. Characterization of the Mechanical Rubber Goods Plant and prospects of its development are showed.

RESEARCH SORBENT AND CATALYST ON THE BASIS OF BASALT FIBRES

V.O. Buravlev, E.V. Kondratjuk, L.F. Komarova, M.A. Bulakh

In work ways of water treating from chemical compounds of iron and manganese by means of known filtering materials and new fibrous sorbents-catalysts are presented, the scheme of their reception is described.

THE CONVERSION OF CARBONIZATION CHEMICALS AS A WAY OF MINIMIZATION OF NEGATIVE EFFECT ON ENVIRONMENT

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The article is dedicated to investigation of absorbing conversion faction coal resin in absorbing oil for benzole HC-hydrocarbon. Improved absorbing oil is characterized by minimal content of naphthalene that large raise its sorption capacity and degrade emissions of HC-hydrocarbon in atmosphere.

PRODUCTION AND CONSUMPTION WASTES MANAGEMENT INNOVATION METHODS

V.I. Egorov, A.V. Mikhailov, A.A. Melbert

The article describes method of a cut of transport costs, to reduce costs of the logistic services, to decrease the time of delivery of wastes due to routing with a smaller extent in comparison with existing ones.

RIGHTS OF INDIGENOUS PEOPLES AND CONTEMPORARY ENVIRONMENTAL THREATS

E.V. Zhukova

Article is devoted to the rights of indigenous peoples in the Russian Federation. Briefly discussed the formation of the Russian legislation regulating this area of public relationships, starting in 1989. Indicated by the constitutional foundations of the legal regulation of rights of indigenous peoples, the laws that define the foundations of modern status of these people. The author identifies a number of environmental rights of persons belonging to these peoples and their communities, there have been some problems in their implementation, part of them the author sees in the legal definition of the concept of indigenous numerically small peoples, particularly in such features as their small size - up to 50 000 people. Some of the problems associated with the refusal of the state of the principle of donations of land and other natural resources in the use of indigenous peoples, and the series - in simple ignoring authorities and businesses the rights of indigenous peoples and set for this procedure.

Keywords: indigenous peoples, rights of indigenous peoples, traditional land

CREATION OF MATHEMATICAL MODEL DIVISION BY RECTIFICATION OF A MIX OF SOLVENTS BUTANOL WITH TOLUENE

M.N. Kleymenova, L.F. Komarova, O.M. Gorelova, Yu.S. Lazutkina, A.N. Balobanova, E.P. Fominyh

This work is devoted creation of mathematical model division by rectification of a mix of solvents butanol with toluene at the decision of questions ecological safety in manufacture silicon organic enamels. Calculation of critical parameters to hlorbenzol is carried out, the data for which is absent in the literature. The parameters of binary interaction received by means of the equations of Wilson and NRTL, and also simulated on group model UNIFAC are presented. As acknowledgement of adequacy of the received mathematical model the data on stratifying in system ethanol-toluene-hlorbenzol-water is cited.

INFLUENCE CHEMICAL-RECOVERY MANUFACTURES ON THE AIR ENVIRONMENT

L.A. Kormina

Article is devoted to topical issues related to the reduction of negative impacts of pollutant emissions into the atmosphere, resulting in the production of chemical byproducts. Offered technical and organizational solutions to reduce the impact of the installation hydrogenation refining of crude benzene and fractions of stone resin (IHK) in the air. Evaluated the impact of IHK on air pool.

THE INFLUENCE OF MOTOR TRANSPORT ON BIOTA

A.A. Melbert, G.V. Medvedev, T.A. Stoporeva

The problems of influence of toxic substances of exhaust gases of motor transport on biota are examined. The experimental research results of the influence of seperate toxic substances on man's and animal's organisms are shown.

Key words: motor, transport, toxic, substances, biota, exhaust, gases.

THE INFLUENCE OF TURBULISATION OF DIESEL EXHAUST GASES ON THE QUALITY OF THEIR CLEANING IN CATALYTIC CONVERTER

A.A. Novoselov, A.L. Novoselov, D.S. Pechennikova

The influence of turbulence of diesel exhaust gases on the quality of their cleaning in the catalytic converter is examined. It is *shown* that turbulence decreases exhausts of not full combustion products: carbonic oxide, hydrocarbon and exhaust solids.

Key words: turbulization, exhaust gases, catalytic, converter.

CLEARING OF THE SURFACE RUNOFF FROM TERRITORY OF THE BARNAUL CENTRAL DISTRICT

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In the work the analysis of systems of the Barnaul storm savage is carried out. The statistics data about quality of a surface runoff from territory of the Central district of Barnaul is analyzed. Influence of Barnaulka river waters on quality of the Ob river in the area of Barnaul is estimated. Possibility of clearing of the surface runoff on available treatment facilities is defined. Reconstruction of the drainage gutter on the one of surface runoff discharge is offered.

RESEARCHES ON MODIFICATION OF WOOD SAWDUST FOR RECEPTION OF NEW SORPTION MATERIALS

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Method of wood sawdust modification for purpose of reception sorbent for the savage water treatment, included heavy metals ions, are considered in the work. Basic parameters of sorbent reception are defined, sorption properties are studied, and possibility regeneration of materials is considered.

SPATIAL PLANNING AS AN IMPERATIVE FOR SUSTAINABLE DEVELOPMENT OF MUNICIPAL UNITS

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The paper discusses the peculiarities of elaboration of documents on spatial planning of municipal units to provide the sustainable development of the territory. Using the scheme of spatial planning of Topchikhinsky region as an example the information-structural elements (blocks) and the features of their formation are presented. The problem situations and areas revealed during the development of the Scheme of Topchikhinsky region are described, and the main tendencies for their solution are given.

Key words: scheme of spatial planning, sustainable development, conservation, land use, rural territories, municipal units.

INFLUENCE OF THE RECREATION ON COMMUNITIES OF SMALL MAMMALS ANTHROPOGENOUS LANDSCAPES OF VICINITIES OF BIISK

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Adduce two-year data on number and distribution of small mammals in different in degree of anthropogenous loading biotopic sites of neighborhoods Biisk. It is shown that recreational loading influences an aggregate number of animals, on a quantitative correlation of small mammals of a different species and on their background structure, than on a specific variety which practically doesn't change, and depends more on a variety of neighboring landscapes and efficiency of vegetative associations, as main food resource. Biotopes with a high anthropogenous press primarily occupy ecologically plastic species, so-called semisinanthropus, the species which are not possessing ability to steady existence in the close contact with the person, or sharply reduce the number, or leave similar places. The greatest ecological tolerance possess the ordinary vole and the mouse-baby which widespread on territory and dominate in all surveyed biotopes.

Keywords: small mammals, quantity, species composition, animalcomplex, recreation, tolerance, dominants, subdominants.