ON DEVELOPMENT OF THE STATE PROGRAMME ON PROTECTION AND REHABILITATION OF THE AZOV AND BLACK SEAS ENVIRONMENT

Prof. Alexander Kuzin
The Programme has the following aims:

• to prevent pollution loading increase on the Azov and Black Seas environment;

• to promote and support environmentally-friendly activity in the region;

• to protect and rehabilitate biodiversity and marine resources;

• to create conditions, favourable for living and recreation.
System of actions (part 1)

• reduction of pollution level and anthropogenic loading on marine ecosystems;

• reduction of risk level for population health, related marine water and coastal zone pollution;

• protection and rehabilitation of biodiversity, natural coastal landscapes, biological community habitats, increase of state reserves and wildlife preserves, creation of national parks;

• sustainable use and rehabilitation of marine biological resources and development of aquaculture activity, breeding of valued fishes, guarantee appropriate state control activity;
System of actions (part 2)

• prevention of coast damage and land protection within coastal zone;

• establishment of integrated nature use system within water-protection zone, coastal zone and territorial marine water;

• improvement of monitoring system for assessment of environmental impact caused by natural and anthropogenic factors;

• general public involvement to implementation of natural-protective measures, raising awareness on environmental problems, environmental education and training improvement;

• improvement of legislation and normative basis for implementation of state policy in the domain of Azov and Black Seas environment protection, coordination of state policy with acting international agreements, conventions and declarations.
System of actions and results of the 1-st stage (part 1)

Reduction of pollution level and anthropogenic loading on marine ecosystems

Building and reconstruction of WWTP, sewage collectors, reconstruction of solid municipal and industrial landfills are performed on 91.9 mln UAH (> 50 % from planned volume)

Reduction of risk level for population health, related marine water and coastal zone pollution

Pollution level analysis is performed through water sampling in control points and in the result of inspections. For example, there are about 100 control points in Crimea, located in recreational areas.

1 USD = 4.9 UAH
Protection and rehabilitation of biodiversity, natural coastal landscapes, biological community habitats, increase of state reserves and wildlife preserves, creation of national parks

Order of the Cabinet of Ministers “On approval of the Concept of development of reserve activity till 2020” was developed and proved. A research station “Zmeiiny island” was created under the Odessa National University.

Sustainable use and rehabilitation of marine biological resources and development of aquaculture activity, breeding of valued fishes, guarantee appropriate state control activity

Works on regulation of industrial fishing and marine products catching, monitoring of ichthyofauna and conditions for reproduction of fishes, growing and settling of young fishes into the Azov and Black Seas are performed.
System of actions and results of the 1-st stage (part 3)

Prevention of coast damage and land protection within coastal zone

Works on prevention of coastal zone use without necessary documents, works on rehabilitation of forests in coastal zone are going on. Actions on coast stabilization were performed on the amount **37,8 mln UAH** (about 50 % from planned budget). State programme on coast / bank stabilisation (for banks of the surface water bodies and Black and Azov Seas coasts) was developed.

Establishment of integrated nature use system within water-protection zone, coastal zone and territorial marine water

Draft Law “On coastal zone” was developed and now it is under adjustment process. Works on identification of water-protective area boundaries for Odessa and Nikolaev Oblasts is performed. Programme on establishment of national eco-net is developed and approved.
System of actions and results of the 1-st stage (part 4)

Improvement of monitoring system for assessment of environmental impact caused by natural and anthropogenic factors
Routine monitoring and inspections are performed. Works on coastal zone monitoring system improvement is in the starting stage.

General public involvement to implementation of natural-protective measures, raising awareness on environmental problems, environmental education and training improvement
Public councils are established under the Ministry and its Oblast Departments; Coordination council is created in Crimea. These councils consists of representatives from NGOs and general population. Round tables, workshops, conferences, initiatives (i.e. “Towards clean sources”, “Wetlands Day”, “Clean coastline and banks”, etc.) are organised regularly.
System of actions and results of the 1-st stage (part 5)

Improvement of legislation and normative basis for implementation of state policy in the domain of Azov and Black Seas environment protection, coordination of state policy with acting international agreements, conventions and declarations

Works on development of legislation and normative basis is going on; i.e. Methodical recommendations on state cadastre works were approved, Draft Laws “On coastal zone” and “On approval of State programme on bio-diversity protection” are developed.
Ratio between planned actions and actual results

- Capital-intensive measures/actions: 46.9%
- Non-capital-intensive measures: 33.5%
- Bank/coast stabilization actions: 50.4%
- Total financing: 46.1%

- Planned
- Actually financed
Planned and actual financial parameters, the 1-st stage of the Programme (2001-2005)

1 USD = 4.9 UAH
Planned and actual financial parameters, capital-intensive actions

1 USD = 4.9 UAH
## Pollutant inputs with river flow – key Ukrainian rivers (Danube, Dniester, Dnepr, S. Bug)

<table>
<thead>
<tr>
<th>Parameter/pollutant</th>
<th>2000</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD-5, thousand tonnes per year</td>
<td>660,077</td>
<td>714,981</td>
</tr>
<tr>
<td>Phosphates, thousand tonnes per year</td>
<td>6,738</td>
<td>11,317</td>
</tr>
<tr>
<td>Oil products, thousand tonnes per year</td>
<td>11,161</td>
<td>6,287</td>
</tr>
<tr>
<td>Chromium, thousand tonnes per year</td>
<td>1,199</td>
<td>1,438</td>
</tr>
<tr>
<td>Nitrate nitrogen, thousand tonnes per year</td>
<td>244,011</td>
<td>400,862</td>
</tr>
<tr>
<td>Nitrite nitrogen, thousand tonnes per year</td>
<td>7,757</td>
<td>7,192</td>
</tr>
<tr>
<td>Ammonia nitrogen, thousand tonnes per year</td>
<td>83,351</td>
<td>68,247</td>
</tr>
<tr>
<td>River flow, mln m³/year</td>
<td>266400</td>
<td>326460</td>
</tr>
</tbody>
</table>
## Pollutant inputs from municipal WWTP, located within coastal zone

<table>
<thead>
<tr>
<th>Parameter/ pollutant</th>
<th>Year</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2000</td>
<td>2005</td>
<td></td>
</tr>
<tr>
<td>Suspended solids, thousand tonnes per year</td>
<td>3,023</td>
<td>3,723</td>
<td></td>
</tr>
<tr>
<td>BOD-5, thousand tonnes per year</td>
<td>4,680</td>
<td>5,679</td>
<td></td>
</tr>
<tr>
<td>Phosphates, thousand tonnes per year</td>
<td>0,164</td>
<td>0,318</td>
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<tr>
<td>Nitrate nitrogen, thousand tonnes per year</td>
<td>0,037</td>
<td>0,033</td>
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<tr>
<td>Nitrite nitrogen, thousand tonnes per year</td>
<td>0,441</td>
<td>0,420</td>
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<tr>
<td>Ammonia nitrogen, thousand tonnes per year</td>
<td>1,711</td>
<td>1,640</td>
<td></td>
</tr>
<tr>
<td>Oil products, thousand tonnes per year</td>
<td>0,021</td>
<td>0,016</td>
<td></td>
</tr>
<tr>
<td>Surfactants, thousand tonnes per year</td>
<td>0,034</td>
<td>0,030</td>
<td></td>
</tr>
<tr>
<td>Wastewater discharges, mln m³/year</td>
<td>183,9</td>
<td>244,8</td>
<td></td>
</tr>
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</table>
## Draft budget for the 2-nd stage on the Programme
(Prices on the 01.07.2007, mln UAH, 1 USD = 4.9 UAH)

<table>
<thead>
<tr>
<th>Type of measure</th>
<th>Totally, 2008-2010</th>
<th>Including on the financial sources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>State budget</td>
</tr>
<tr>
<td>Total</td>
<td>1172,0</td>
<td>617,1</td>
</tr>
<tr>
<td>Capital-intensive actions, totally</td>
<td>1088,1</td>
<td>577,8</td>
</tr>
<tr>
<td><strong>including:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establishment and development of monitoring system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establishment and development of monitoring system</td>
<td>890,4</td>
<td>502,4</td>
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<tr>
<td>Construction works, modernisation, upgrading of municipal WWTP facilities</td>
<td>92,2</td>
<td>57,1</td>
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<tr>
<td>Construction works, reconstruction of solid municipal waste sites</td>
<td>105,5</td>
<td>18,3</td>
</tr>
<tr>
<td>Non-capital measures, totally</td>
<td>82,3</td>
<td>38,3</td>
</tr>
<tr>
<td><strong>including:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establishment and development of monitoring system</td>
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<td></td>
</tr>
<tr>
<td>Establishment and development of monitoring system</td>
<td>4,3</td>
<td>2,1</td>
</tr>
<tr>
<td>research activity and projects</td>
<td>55,9</td>
<td>26,8</td>
</tr>
<tr>
<td>geo-information system creation</td>
<td>4,4</td>
<td>0,9</td>
</tr>
<tr>
<td>other measures</td>
<td>17,7</td>
<td>8,5</td>
</tr>
<tr>
<td>Establishment and development of monitoring system</td>
<td>1,6</td>
<td>1,0</td>
</tr>
</tbody>
</table>
Draft of Programme budget, 2008-2010

State budget, mln UAH: 373.6
Local budgets, mln UAH: 181.3
Other sources, mln UAH: 617.1

1 USD = 4.9 UAH
### Capital-intensive actions, on oblasts and financial sources, mln UAH

<table>
<thead>
<tr>
<th>Oblast</th>
<th>Totally, 2008-2010</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>State budget</th>
<th>Local budgets</th>
<th>Other financial sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimea</td>
<td>233,8</td>
<td>88,7</td>
<td>73,8</td>
<td>71,3</td>
<td>231,2</td>
<td>1,8</td>
<td>0,8</td>
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<tr>
<td>Donetsk Oblast</td>
<td>148,3</td>
<td>47,7</td>
<td>54,9</td>
<td>45,7</td>
<td>42,2</td>
<td>32,0</td>
<td>74,1</td>
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<tr>
<td>Zaporozhya Oblast</td>
<td>198,8</td>
<td>87,6</td>
<td>63,1</td>
<td>48,1</td>
<td>77,7</td>
<td>28,4</td>
<td>92,7</td>
</tr>
<tr>
<td>Nikolaev Oblast</td>
<td>115,1</td>
<td>42,4</td>
<td>38,5</td>
<td>34,2</td>
<td>56,4</td>
<td>0,0</td>
<td>58,7</td>
</tr>
<tr>
<td>Odessa Oblast</td>
<td>179,3</td>
<td>59,1</td>
<td>59,7</td>
<td>60,5</td>
<td>45,7</td>
<td>8,6</td>
<td>125,0</td>
</tr>
<tr>
<td>Kherson Oblast</td>
<td>96,5</td>
<td>27,7</td>
<td>33,7</td>
<td>35,1</td>
<td>66,8</td>
<td>28,8</td>
<td>0,9</td>
</tr>
<tr>
<td>Sevastopol City</td>
<td>116,3</td>
<td>37,6</td>
<td>38,2</td>
<td>40,5</td>
<td>57,8</td>
<td>37,1</td>
<td>21,4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1088,1</strong></td>
<td>390,8</td>
<td>361,9</td>
<td>335,4</td>
<td>577,8</td>
<td>136,7</td>
<td>373,6</td>
</tr>
</tbody>
</table>

1 USD = 4.9 UAH
Capital-intensive actions

1 USD = 4.9 UAH
Non-capital-intensive measures

1 USD = 4.9 UAH
Стан виконання невідкладних капіталомістких природоохоронних заходів у Донецькій області
Умовні позначення:

Капіталомісткі заходи з упорядкування водовідвідень на об'єктах ЖКГ

- додаткові
- заплановані
- частково виконані

Упорядкування поверхневого водовідвідень на урбанізованих територіях

- заплановані

Капіталомісткі заходи з ліквідації негативного впливу полігонів і звалищ твердих побутових відходів

- додаткові
- заплановані

Стан виконання невідкладних капіталомістких природоохоронних заходів у Запорізькій області
Стан виконання невідкладних капіталомістких природоохоронних заходів в АР Крим
Умовні позначення:
Капіталомісткі заходи з упорядкування водовідведення на об'єктах ЖКГ
- додаткові
- заплановані
- частково виконані
- виконані

Капіталомісткі заходи з ліквідації негативного впливу полігонів і звалищ твердих побутових відходів
- додаткові
- заплановані

Стан виконання невідкладних капіталомістких природоохоронних заходів у Одеській та Миколаївській областях.

Масштаб:
10 0 10 20 км

Молдова
Миколаїв
Березанка
Херсонська область
Румунія
Чорне море
Стан виконання невідкладних капіталомістких природоохоронних заходів у Херсонській області
Program maintenance, support and implementation

Responsible representative of the Ministry (Deputy Minister)

Department of Black and Azov Seas in the Ministry

Inter-departmental Commission

Responsible representatives of Oblast Administration in Donetsk, Zaporozhzya, Kherson, Nikolaev, Odessa Oblasts, Crimea and Sevastopol City

Responsible representatives of the Ministry in Donetsk, Zaporozhzya, Kherson, Nikolaev, Odessa Oblasts, Crimea and Sevastopol City

NGOs, mass media, general public

Head of Departments, responsible for Programme implementation

Head of Departments, responsible for Programme implementation
Thank you for your attention

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