

Written comments submitted by the public**Additional comments and questions from the public concerned**

WWF

1. *What is the rationale of having a second deep sea channel in the same area (one of the most sensitive in Europe); there is no similar situation in Europe (with two deep sea channels)?*
2. *Why going for 8 m depth instead of 4,5 which does not involve that much dredging?
This depth could ensure the ships traffic from Odessa to Reni/Giurgiulesti, therefore could provide economic benefits with less costs for maintaining the channel!*
3. *How comes that the EIA on DWNR made by the participation of twelve institutes and different researchers from Ukraine specify just an possible local impact starting from some presumptions instead of using detailed current situation as reference for the impact? It is allowed in the Ukrainian environmental laws to establish an impact of a project without having known the initial detailed situation?*
4. *Should the EIA foresee a conformation plan to be followed by the authorities, as the works started without establishing the precise impact of the project? Monitoring plan is just a way to establish the impact and not a measure for diminishing the impact as you stated during the meeting on 18 July!*
5. *Why it is not assessed the impact of the alteration of the basic processes which forms the delta (degradation, aggradations and water circulation) at the scale of entire Danube Delta system?
In the current EIA only general remarks on the potential effects are given! What is the long-term impact of?*
 - *Alteration of sediment balance (dumping the sediments into the sea, effects on coastal areas)!*
 - *Alteration of the sea currents!*
 - *Habitat loss (e.g. sand bars, wetlands)!*
6. *How do the „slowing extension of delta margins, the increasing water circulation through Bystroye, increasing quantity of sediments transported into the sea,„ have a positive environmental effect as stated on pg. 38 (point 10).
These are rather improved conditions for navigation without taking into account river dynamic processes*
7. *What criteria have been used to calculate the **compensations** (values) for „irreparable / irreversible,, damages to natural environment?*
 - *E.g. habitat loss is usually compensated by recreation of similar habitats necessary for feeding, breeding, staging; the quality of the new proposed habitats (those 5600ha of reserve) enables populations to recover.*
 - *E.g. how was the value for the reduction of the population of flora and fauna species calculated? –Who is going to be compensated from these losses? (especially the calculation for the birds losses)*
8. *What is the impact of biodiversity losses at the scale of entire Danube Delta? (E.g. birds are nesting in the RO DD but feeding in the UA DD).*

9. What reference values were considered for the assessment of pollution impact (for nutrients, heavy metals in water, sediments and suspended solids)? (Maximum admissible concentration, standard EU values should be considered, compliance with WFD).
 - How the long-term effects of the implementation works and maintenance will be monitored within the delta and along the Black sea coast?
10. What is the effect of contaminated sediments dumped on the shores and into the sea?
 - What reference values have been used to assess the impact?
 - Impact on the shore plant and animal communities?
 - Impact of the sediment resuspension in the river (on bottom fauna, fish fauna, etc.)
 - Impact on the zoobenthic communities by dumping sediments into the sea
 - Overall impact on the food chains (e.g. reduction of macroinvertebrates population (by dredging, pollution, etc) will impact species whose main food source are - fish, birds) – in this case, the calculation of compensations (e.g. to ichtiofauna) do not take into consideration the whole damage
11. **Compensations** – there is an evidence of a bank guarantee to ensure the amount for the promised compensations?
12. **Compensations** – why compensations are not included for the damages on the RO side?
13. What elements are considered when stating that the reproduction conditions of fish are not affected?
14. How the sturgeon population will be affected by the alteration of the river bed morphology?
15. What arguments are considered when stating that:
 „The analysis of the possible impacts of the DWNR construction and operation on the adjoining territories of Romania and on bilateral Ukrainian-Romanian biosphere reserve in the Danube delta demonstrated that the DWNR implementation in accordance with the development project for the full development will not make a significant transboundary impact on the natural environment and nature resources of Romania and will not result in negative ecological consequences for the reserve biota., (pg. 183)
16. What is the meaning of the following sentence? The fact that the species are rare, means that they are already threatened and vulnerable, therefore any intervention would definitely generate a negative impact! „ Biotic groupings of the Bystre branch area, including rare species and associations, are not unique for the DBR; they are widely spread within the boundaries of its territory. That is why certain local successions of vegetative aggregations and partial migration of animals from the branch itself and its riverside, possible in connection with the DWNR creation, do not pose a threat to preservation of the reserve biodiversity, to the existence of rare and especially valuable species of plant and animal kingdoms on its territory, in particular.
17. Why the cumulative impact of external activities (agriculture, industrial fishing, pollution, infrastructure developments) is not considered? For an already fragile system as Danube Delta, each intervention is added to an already existing pressure.
18. Navigable routs or port development should be kept outside the DD! One channel is enough; financial mechanisms and agreements could be a better solution

Comments from Sulina City Hall**Notes about Chilia-Bastroe Arm**

Chilia Arm is about 117 km length being an arm with many meanders and variable widths and depths according to the bottomsills. It is a common part of the Romanian and Ukrainian states. The border line between the two states is defined by the talweg (the line connecting the lowest points of successive cross sections through a river channel; the maximum depth of the navigable channel) which can be situated sometimes on the Romanian bank and sometimes on the Ukrainian one. It is not a continuous line along the centre of the Chilia arm.

This arm has also another particular characteristic: it is not representing only the border between Romania and Ukraine, but also the border between the East Border of the European Union and of the North-Atlantic Pact.

The Delta developed at Chilia arm discharge point is of Mississippi type, with an orientation towards Northeast. The major yearly winds are blowing from northeast perpendicular on the shore, which means that during the storms there are surface and deep streams modifications and also shore, beaches and submarine banks fast erosion phenomena. The natural factor has a clogging effect on the secondary discharge arms, including on the Bastroe Channel.

Historically speaking, two aspects have to be taken into consideration:

The attempt to build a navigable waterway on Bastroe arm by USSR failed, after lots of money has been spent during more than a decade. At that time, the USSR ships tried to navigate on Bastroe Channel, but they have failed and so the traffic on Sulina channel has been resumed.

The annual quantity of alluvial deposits carried on the Chilia arm is very big – the flow natural distribution is 58% of the Danube flow being discharged on Chilia arm. The solid alluvial deposits flow by one cubic meter of water within normal flow conditions (average level) is 340 g alluvial suspension matter and during floods period (very high levels) the suspension matter quantity reaches 1500 g (i.e. 2006). At a level of 16,000 m³/s, the alluvial deposits quantity calculated at one kg/s per cubic meter was 16 tones m³/s = 57,600 t/h = 1,382,400 t/day = 41,472,000 t/month. At the 58% flow of Chilia arm, the solid flow was 24,053,760 t/month.

A part of the alluvial deposits formed at the Delta discharge mouth of Chilia arm are brought also by Nistru River – taking into account that the flow direction of the Black Sea is towards south (Bosfor).

At the creation of the Danube European Commission (1856), Sir Charley Hatley, the chief-engineer (so called "the Father of Danube") performed some hydrological and hydrotechnical studies on Chilia, Sulina and Sf. Gheorghe arms in order to chose one arm for hydrotechnical regularization. As a result, the conclusion was that Chilia and Sf.Gheorghe arm could not be used for navigation because of the discharge delta, the meanders of the arms and the length for regularization by dredging. At that time, the issues related to environment, resources and impact studies were not taken into consideration.

From the Mm (sea mile) 0 of the Danube River, at the discharge mouth there have been built some jetties along 12 km length (submerged and emerged dikes on each bank) with the aim to direct the water flow and to naturally gain some depth. The construction of the jetties started in 1856. After the 2nd Second World War, there has been built 1 km of dikes in order to reach a certain depth needed for navigation. The construction of this 1 km was performed during 1961 – 1981. Yearly, 50m of dykes have been constructed on both banks, because the works were possible according to the meteorological conditions only from spring to autumn (hollow sea, storms and big winds). To understand the technical difficulty of the works, it can be mentioned

that yearly there were used 6,000 m³ of willow and poplar twigs for the bottom mattresses and pile drivers for dikes construction have settled thousands of cubic meters of rocks.

Actual context

The Belgrade Convention regulates the navigation on the Danube River (1947). This Convention was imposed by the winners of the 2nd World War and replaced the Danube Definitive Convention signed in Paris in 1921.

USSR wished that the Convention to include only riparian countries. The countries under Soviet influence signed the Convention, the defeated Germany participated as observer, Austria did not sign the Peace Treaty and did not have the right to vote, USA, France and England withdrawn after the USSR Foreign Affairs Minister told them: "The door is opened for you, you may stay or you may live".

The Belgrade Convention has the headquarters at Budapest by parties' willingness although 1075 km of Danube River (42%) flow on Romanian territory. After the transformations happened in Central and East Europe, the Convention has not been updated, although this is necessary due to the reason that the navigation will have a common European standard related to the North Sea – Black Sea navigation by Rhyne – Main – Danube channel. There are some new countries within the new configuration of the Danube River Basin and some of them are not anymore riparian to Danube River.

The Belgrade Convention regulates the Danube norms, as the old Danube Convention from 1921, clearly stipulates that: "The navigation on Danube is made from Ulm to the Black Sea by Sulina arm."

Regarding the "Danube River corridor 7" (established at the Creta meeting and at the Pan-European Conference from Helsinki, 22-25 June 1997), the Ukraine's goods transport by fluvial and maritime ships is not affected. The Corridor keeps its transport configuration having as final point Sulina adding the Danube-Black Sea channel in order to enhance the value of Constanta port. In conclusion, Ukraine cannot use as reason the obstruction of the access to the fluvial-maritime transportation. Also, Ukraine cannot appeal to the fact that the navigation on Sulina Channel is impeded by the Rostock ship wreck because the wreck was drawn out.

What implies the construction of the Bastroe Channel

The works at the Bastroe Channel started without bilateral consultation, without impact study developed by specialists from both involved countries and by neutral international experts, without the accept of Romanian party related to the dredging on Chilia arms, and the construction of contracting dykes on the Romanian bank.

It implies Ukraine to sign agreements/accords with Romania of EU and NATO Member State, respective with the Romanian Ministry of Transportation, Ministry of Environment regarding the navigation approval, heavy naval traffic on Chilia arm, the transformation of the arm into navigation channel especially due to the existence of the Danube Delta as Biosphere Reserve, with the participation of all the involved international institutions representatives, UNO, EU, UNESCO, Ramsar, Espoo, ICPDR, Aarhus Convention, Berna Convention, NGO's.

It implies Ukraine to modify Chilia arm into a navigation channel, which means that the whole arm to be submitted to huge hydrotechnical works, dredged so the talweg to pass by centre similar to the navigation channels internationally homologated that will determine flow and natural riverbed deterioration. The dredging will also produce deteriorations of the fluvial currents, unexpected bank erosion phenomena both on the Romanian and Ukrainian banks.

Dredging of millions cubic meters of alluvial deposits that will have to be discharged somewhere.

The construction of contracting dykes on both banks (submerged dykes) to direct the flow through the navigation channel and the prevention of erosion and changing of the banks shape.

Because of its economic interest, Ukraine has the obligation to support financially the works for the protection of the Romanian bank against naval traffic erosion, which leads to the loss of the landscape of natural channel.

There is also the issue of winter navigation; the floating ice could cause the blockage of the arm due to its meanders.

The attempt to build a navigable channel means also international recognition, registration within the Navigation Conventions as separate party (up to Braila there is the Maritime Danube).

It implies the ships and goods assurance companies to accept and to recognize that the channel fulfils the standards in the field. If a ship enters the channel and strands, the companies do not pay the assurance, and oil or other products could pollute the Danube River and Danube Delta.

It implies naval signalization for navigation, lighthouses, light buoys, barge poles, radar lighting fitting etc.

It implies specialized pilots, recognized by the Danube Convention according to the International Conventions – international attestation.

From the ecological point of view, Bastroe implies the consideration of the following issues:

- the problem of sustainable development of the Danube Delta Biosphere Reserve is deviated towards economical reasons with destructive cumulative effects;*
- social problems caused to the local population by reducing the fish resources;*
- the reduction of the sturgeon reproduction habitat*
- the reduction of the Danube mackerel reproduction habitat*
- the reduction of the birds species;*
- natural landscape destruction;*
- line rectification (meander cutting off) on the Chilia arm;*
- usage of rocks and processed wood.*

Example: The maritime ships for heavy traffic, loaded with goods have the draught of 6 – 7 meters, the noise of the engines spreads into the water and the sturgeon does not enter in the area of Chilia. Another effect is the fact that the water of the internal lakes between Chilia arm and Sulina channel is becoming salty and some of these lakes are damaged.

From two arms, Chilia and Sf.Gheorghe, only Sf.Gheorghe keeps the natural conditions for reproduction. On Sulina channel, due to the noise, the sturgeon does not enter for reproduction. It means that the digging of the bank by a navigable channel (transversal channel of 7-8 m depth) that forms in front of the discharge mouths due to the alluvial deposits and storms from northeast-east direction will activate the principle of communication vessels on levels of different density (salty water and fresh water). The effect consists in the fact that at northeast-east storms, the sea is rising at the shore, the water discharge is blocked, a stream of salty water penetrates in the Danube Delta (at the bottom due to the density difference). The stream of salty water appears also at small and average flows.

The salt water penetrates by channels into the lakes and the submerged vegetation is salted, or during the reproduction periods, the roe are becoming salty, the common reed vegetation is becoming crammed. All these effects sum up in a considerable impact with consequences on long term that cannot be controlled.

The conclusions from this paper resulted by consulting experts from the hydrotechnical offices, harbormaster's offices, research institutions that run at Sulina, fluvial pilots of different piloting companies, fishermen and fish engineers, other professional categories.

The discussions carried at Sulina with fluvial pilots from different companies led to the conclusion that they are not authorized to use this "improvisation" - Bastroe.

The public consultation of the fishermen communities that fish in the Danube Delta and in the Black Sea led to the conclusion that the salinisation phenomena will generate the loss of considerable fish resources and will damage the vegetation.

The sea fishermen noted that fine sands and silt soils from the dredging can be found also in Sulina area with negative effects on the caught fish quantities. The flounder and the turbot have gone out at sea because of the silt alluvial deposits.

Also an alluvial island formed in front of Musura Gulf that includes sand discharged by dredging and tends to close the gulf.

The communities from the Danube maritime area express their wish that the Danube Delta Biosphere Reserve to be kept untouched and they wish that their tradition to live in harmony with the nature to not be affected. The local communities from the Danube Delta consider that the sustainable development is able to satisfy the protection of the Danube Delta Biosphere Reserve.

From 2004 a Local Partnership Group between the local authorities and the Foundation Friends of Danube Delta runs at Sulina. The development of the partnership was supported by a PHARE project aiming at public consultations in order to better understand the complex problems of the communities and their solving from the social, cultural, environmental point of view.

This paper has been developed in partnership with the Foundation Friends of the Danube Delta and the local authorities from Sulina, by consulting all the professional categories from the maritime Delta.