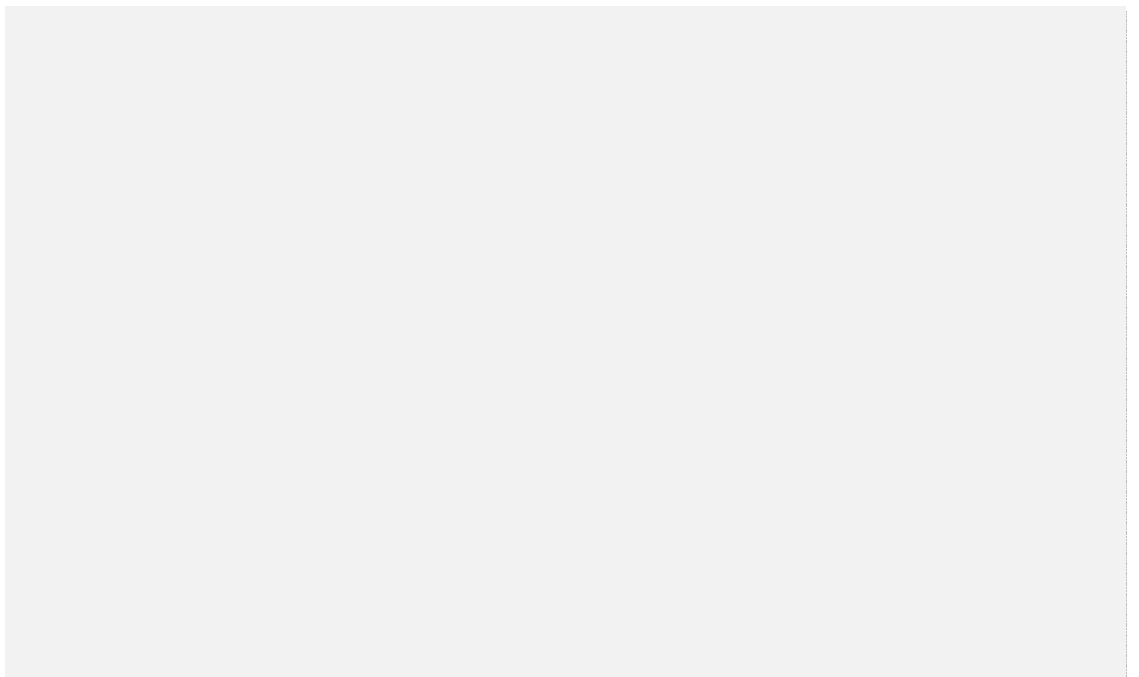




GOVERNMENT OF ROMANIA

DEPARTMENT FOR INFRASTRUCTURE PROJECTS
AND FOREIGN INVESTMENT

**FUNDING, DESIGNING AND EXECUTION SIRET-
BĂRĂGAN CANAL**
Presentation Sheet



1. GENERAL INFORMATION

Romania has available a farming surface of more than 10.00 million ha, which is enough to meet the food supply needs of around 130 million inhabitants. One of the most fertile area stretches between the Rivers of Siret and Ialomita, but, despite the extraordinary fertility of the agricultural land, the yield currently obtained remains low.

The solution to this problem is to irrigate certain of these surfaces amounting to approx. 500,000 ha. To this end, the Romanian state decided back in 1984 to implement the project Main Canal Siret-Baragan, which was approved under the Decree no. 398 of 1986 and the execution of the first 50-km segment of the canal was started one year later, in 1987, up to the Southern limit of county of Vrancea.

This segment, between the intake in Calimanesti Lake and a section of approx. 4 km upstream of the undercrossing of River Ramna, could serve a surface of 154,283 ha. Execution works progressed fast and approx. 36% of the work was completed by 1990.

After 1990, although the found was not stopped completely, it has continued, but with minimum annual allotments, the project being still under performance today.

To complete this investment, the proposed additional funding source is the **public-private partnership**.

2. PROJECT DESCRIPTION

2.1 The necessity and opportunity of continuing with the works proposed to be executed under a public-private partnership, **in respect of the investment “Main Canal Siret – Bărăgan, county of Vrancea”**.

Necessity. This area is crossed by several watercourses: Putna, Milcov, Ramna, Ramnic, Buzau, Prahova and Ialomita. The flow of these rivers varies along the year, with several periods when the flows are very low and some rivers even dry out.

To secure the water needed to irrigate the plots of land in the indicated area, the only economic solution is for a by-pass of Siret River to cross this area.

In the drainage area of Siret River, there are storage lakes in operation (Izvorul Muntelui, Galbeni, Racaciuni, Beresti and Calimanesti) which can supply the water needed to irrigate a surface of approx. 360,000 ha.

The remaining surface up to 500,000 ha could benefit of the water reserve only following an additional regulation of the flows in the drainage areas of Siret and Buzau.

During the years with average and rainy years, Siret-Baragan Canal shall support gravitational irrigation of an additional surface of 200,000 ha, previously fitted-out for irrigation with water pumped from the Danube.

Execution of Siret-Baragan Canal shall allow irrigation, with minimum expenses, of the agricultural areas, as the water delivery is gravitational.

The investment further provides for by-passes of the high and medium voltage electrical networks (10 km), communication networks (17 km), gas and crude oil pipes and reworking of the decommissioned facilities.

2.2. The length of the overall design of the Main Canal Siret-Bărăgan facility is 190 km. The first stage allowed for the supply of water of irrigation for a surface of approx. 120,000 ha of agricultural land, located in the relevant area of the canal.

2.3. So far the works for the water intake from Călimănești Lake and a segment of approx. 5.7 km have been completely executed and commissioned; similarly, certain segments of the canal and undercrossings were excavated and concreted, being partially executed, but not commissioned.

2.4. The works shall focus on continuing from the commissioned segment of the canal so that the financial sources allocated to this investment would allow for the continuation of the canal segment currently in operation.

We need to note that the continuation of the works on the segment between the locality of Mărășești and further on is strictly conditioned by the finalization of the crossings of the canal with the national road Focșani-Bacău and the railway Mărășești-Panciu.

The bridges for crossing over the canal are executed, but the connection works, previously agreed, endorsed and approved, haven't yet.

The investments required for the execution of these connection works were included in the approved general bill of quantities as collateral investments resting with the Ministry of Transport.

To ensure the active face for execution of the Main Canal Siret – Bărăgan in 2011 and in the following years, under the conditions imposed by the need to extend the segment of the canal which is currently active, certain lobbying must be done with the Ministry of Transport in order to execute and finalized the communication ways (national road and railways) on the crossing with the main canal, in the area of locality of Mărășești.

Opportunity. The space referred to as Siret – Ialomita, in respect of its fitting-out for irrigation, means the territory between the confluence of Trotus River with Siret River – to the North; Ialomita River to the South, the economic limit of expanding the irrigations to the West and Siret River, respectively the limit of the irrigation systems supplied with water from the Danube – to the East (a territory which belongs to the counties of Vrancea, Braila, Buzau and Ialomita).

Agricultural land accounts for 87.5% of the total surface of this area, of which arable 86.2%, pasturage and grassland 8.5% and vineyard and orchards 5.3%.

The need to increase the agricultural production as a result of reducing the agricultural area per capita, would immediately lead to the obligation to irrigate the space Siret – Ialomita during the years to come.

The area Siret - Ialomița, a component part of the Romanian Plain, with an agricultural surface of more than 700,000 ha, shows a water sourcing deficit. For this reason, execution of the hydro-improvement works in this area is a social imperative stemming also from the Romania's strategy of ensuring food security under increasingly less favorable climate conditions. The following can be noticed in this respect:

- most plots of land are included in class 1 of fertility (68% of the agricultural surface);
- the current yield of the agricultural land in this space is small to medium;
- the causes of the low production are found mostly in the natural conditions; draught, soil erosion, temporary excess humidity, salted, marshy, sandy lands, etc.
- the thermal regime of the area provides the necessary conditions for the growth and development of most agricultural crops;
- the experience available in the area and in other parts of Romania has proven that proper irrigation, in connection with other agricultural and technical works and measures (drainage, dewatering, combating soil erosion, leveling – modeling and other, term of the local conditions of each relevant area) would result into high and stable yields;

2.5 Status of the project

EXECUTED irrigation systems which can supply water from the Main Canal Siret –Bărăgan	
Ruginești – Pufești – Panciu (in part)	
Total area	23,295 ha
of which: completed	2,100 ha
Mărășești	
Total area	3,595 ha
of which: completed	3,595 ha
Biliești – Slobozia – Ciorăști	
Total area	20,255 ha
of which: completed	20,255 ha

<u>NOT EXECUTED irrigation systems which can supply water from the Main Canal Siret –Bărăgan</u>	
<u>Ruginești – Pufești – Panciu</u>	
<u>Total area</u>	<u>23,295 ha</u>
<u>of which: not completed</u>	<u>21,195 ha</u>
<u>Pumping stations:</u>	
<u>- supply pumping stations</u>	<u>3 pcs.</u>
<u>- re-pumping stations</u>	<u>11 pcs.</u>
<u>- pressurization stations</u>	<u>53 pcs.</u>
<u>Canals' length</u>	<u>70 km</u>
<u>Main pipes</u>	<u>35 km</u>
<u>Antennas</u>	<u>546 km</u>
<u>Land leveling</u>	<u>8,804 ha</u>
<u>Soil erosion control</u>	<u>6,559 ha</u>
<u>Drains</u>	<u>317 ha</u>

Drainage	2,200 ha
Concretes	79,234 cubic m
Cotești – Râmnicu Sărat	
Total area	24,075 ha
of which: not completed	24,075 ha
Pumping stations:	
- supply pumping stations	3 pcs.
- re-pumping stations	13 pcs.
- pressurization stations	60 pcs.
Canals' length	80 km
Main pipes	40 km
Antennas	620 km
Land leveling	10,000 ha
Soil erosion control	7,450 ha
Drains	360 ha
Drainage	2,500 ha
Concretes	90,000 cubic m
Râmnicu Sărat South	
Total area	34,720 ha
of which: not completed	34,720 ha
Pumping stations	
- supply pumping stations	4 pcs.
- re-pumping stations	19 pcs.
- pressurization stations	87 pcs.
Canals' length	115 km
Main pipes	58 km
Antennas	894 km
Land leveling	14,422 ha
Soil erosion control	10,744 ha
Drains	519 ha
Drainage	3,605 ha
Concretes	129,795 cubic m
Buzău – Sărata	
Total area	107,000 ha
of which: not completed	107,000 ha
Pumping stations:	
- supply pumping stations	13 pcs.
- re-pumping stations	58 uc
- pressurization stations	267 pcs.
Canals' length	356 km
Main pipes	178 km
Antennas	2,756 km
Land leveling	44,444 ha
Soil erosion control	33,111 ha
Drains	1,600 ha
Drainage	11,111 ha
Concretes	400,000 cubic m
Gologanu – Nănești	

Total area	50,995 ha
of which: not completed	50,995 ha
Pumping stations:	
- supply pumping stations	6 pcs.
- re-pumping stations	28 pcs.
- pressurization stations	127 pcs.
Canals' length	169 km
Main pipes	85 km
Antennas	1,313 km
Land leveling	21,182 ha
Soil erosion control	15,780 ha
Drains	763 ha
Drainage	5,295 ha
Concretes	79,234 cubic m
Bogza – Balta - Alba	
Total area	87,815 ha
of which: not completed	87,815 ha
Pumping stations:	
- supply pumping stations	11 pcs.
- re-pumping stations	47 pcs.
- pressurization stations	218 pcs.
Canals' length	292 km
Main pipes	146 km
Antennas	2,261 km
Land leveling	36,476 ha
Soil erosion control	27,174 ha
Drains	1,313 ha
Drainage	9,119 ha
Concretes	328,280 cubic m
Pogoanele - Fundata	
Total area	148,250 ha
of which: not completed	148,250 ha
Pumping stations:	
supply pumping stations	18 pcs.
- re-pumping stations	80 pcs.
- pressurization stations	369 pcs.
Canals' length	493 km
Main pipes	246 km
Antennas	3,818 km
Land leveling	61,578 ha
Soil erosion control	45,876 ha
Drains	2,217 ha
Drainage	15,395 ha
Concretes	554,205 cubic m

EXISTING irrigation systems which can connect to the Main Canal Siret – Bărăgan	
Ciorăști – Măicănești	
Total area	11,813 ha
of which: completed	11,813 ha
Nămoloasa – Măxineni – Grădiștea	
Total area	34,010 ha
of which: completed	34,010 ha
Grădiștea – Făurei - Jirlău	
Total area	10,140 ha
of which: completed	10,140 ha

EXECUTED irrigation systems which can supply water from the Main Canal Siret –Bărăgan
- costs summary -

Layout legend system no. Name	Area (ha)	Cost of modernization	
		per unit (EUR/ha)	Total (EUR)
1. Ruginești – Pufești – Panciu (in part)	2,100	2,600	5,540,000
2. Mărășești	3,595	1,600	5,752,000
3. Biliești – Slobozia – Ciorăști	20,255	1,700	34,434,000
OVERALL TOTAL	25,950		45,726,000

NOT EXECUTED irrigation systems which can supply water from the Main Canal Siret –Bărăgan
- costs summary -

Layout legend system no. Name	Area (ha)	Cost of execution	
		per unit (EUR/ha)	Total (EUR)
1. Ruginești – Pufești – Panciu	21,195	3,500	74,183,000
4. Cotești – Râmnicu Sărat	24,075	5,500	132,413,000
5. Râmnicu Sărat Sud	34,720	5,700	197,900,000
6. – Sărata	107,000	8,400	898,800,000
7. Gologanu – Nănești	50,995	4,100	209,080,000
8. Bogza – Balta – Alba	87,815	2,100	184,412,000
9. Pogoanele - Fundata	148,250	5,600	830,200,000
OVERALL TOTAL	474,010		2,526,988,000

EXISTING irrigation systems which can connect to the Main Canal Siret – Bărăgan
- costs summary -

Layout legend system no. Name	Area (ha)	Cost of modernization	
		per unit (EUR/ha)	Total (EUR)
10. Ciorăști – Măicănești	11,813	1,650	19,500,000
11. Nămolosa – Măxineni – Grădiștea	34,010	1,600	54,416,000
12. Grădiștea – Făurei - Jirlău	10,140	1,600	16,224,000
OVERALL TOTAL	55,963		90,140,000

NOTE:

The existing irrigation system were not in service in the last 3 years. An expert investigation is required in order to modernize them and determine the damage level thereof.

The collection of the field data pointed out that only 15-20% of the surface could be classified as operational.

3. STUDIES, DOCUMENTATIONS, ANALYSES DRAWN-UP FOR IMPLEMENTATION OF THE PROJECT

The proposal is to continue with this investment under a **public-private partnership** regime.

*To approve certain measures for reorganization of the Central Unit for Coordination of the Public Private Partnership (UCCPPP), **it was agreed, under a Memorandum approved by the Government**, for the Pre-feasibility study and award documentation of the public-private partnership agreement for the investment “Complex Fitting-Out of the Canal Siret – Bărăgan” to be submitted to the Ministry of Agriculture and Rural Development for identification of potential partners.*

During the work meeting of 10 January 2012, aimed at informing the Prime Minister of the status of implementing and promoting the public-private partnerships included in the centralized list of public-private partnership projects, updated by UCCPPP, the representative of the Ministry of Environment and Forest (MMP) expressed an opinion in favor of coordinating implementation of this project as a public-private partnership in **“association” with the Ministry of Agriculture and Rural Development**.

On purpose of making this decision, the MMP representative requested a new deadline by which he would be officially authorized by the heads of the Ministry in this respect.

Upon the request of UCCPPP, the persons responsible for coordination of the public-private partnership projects in MMP were nominated.

On 01.02.2012, the nominated representatives of MPP participated in the interactive seminar **“Canadian Expertise – Romania’s Development Potential”**.

During the work meeting of 06 February 2012, the representatives nominated by MPP delivered a brief presentation of the status of project’s implementation and

restated their opinion in favor of **coordinating implementation of this project as a public-private partnership as owner of the the project or in “association” with the Ministry of Agriculture and Rural Development. UCCPPP documented the point of view of and shall share it in the Note to the Government.**

On 7 February 2012, the Embassy of Israel organized a workshop with an important number of Israeli companies interested in investing in our country in the field of environment. In the presentation delivered by the representative of the General Directorate for Investments – MMP the investment “**Main Canal Siret – Bărgan, county of Vrancea**” was described an investment opportunity run through MMP as a public-private partnership.

Likewise, on 13 February 2012, the Directorate for External Relations and Protocol of MMP organized a workshop with participation of the Ambassador of Belgium to Bucharest, as well as of companies interested in investing in environment. In his presentation, the representative of the General Directorate for Investments – MMP “**Investment opportunities in Romania developed by Ministry of Environment and Forests**” the public-private partnership “**Main Canal Siret – Bărgan, county of Vrancea**” was described the first investment opportunity.

In accordance with the provisions of Law no. 178/2010 – the Law of Public-Private Partnership and of the Government Decision no. 1239/2010 approving the Methodological Rules for application of the Law of Public-Private Partnership no. 178/2010, we hereby propose for the stages of the investment project “**Main Canal Siret – Bărgan, county of Vrancea**” to be as follows:

a. Publication of the selection announcement and of the attached document by the public partner (associated) including the description of the project, selection criteria, means of selection (selection announcement and attached document have been drawn-up);

Deadline: After opening of the SEAP page for PPP projects

b. Submission of the cover letters by the private investors, pursuant to the requirements asked from the public partner under the attached document;

c. Evaluation of the cover letters and related documents based on which the private investors to be invited to negotiations shall be selected;

d. Negotiation through dialogue with each individual private investor admitted, pursuant to the criteria laid-down in the attached document, on purpose of identifying the solutions for the technical issues, financial schemes, etc.;

e. Submission of the final bids, within the term set and published on SEAP;

f. Execution of the public-private partnership agreement.

g. Commencement of the legal procedures for the establishment of the Special Purpose Vehicle in the form of a company, Romanian legal entity

4. INVESTMENT NEED

Taking into account the complexity and financial effort, the investment was proposed to be implemented as follows:

I. Stage I, with a length of 50 km

Total investment on 31.05.2011:	EUR 475,883,618
Completed on 31.05.2011:	EUR 132,000,000
Remaining to be performed as of 31.05.2011:	EUR 343,883,618
Remaining collateral investments to be performed (roads, bridges, etc.) as of 31.05.2011:	EUR 332,603
Remaining to be performed (I) as of 31.05.2011	EUR 344,216,221

II. Stage II, with a length of 140 km

Total investment on 31.05.2011:	EUR 2,250,701,366
Completed on 31.05.2011:	EUR 0
Remaining to be performed (II) as of 31.05.2011	EUR 2,250,701,366

Remaining to be performed (I+II) as of 31.05.2011 EUR 2,594,917,587

Multiannual budget allocated by MMP:

Achievements in 2011 (execution 2011)	RON 3,822 thousand (RON 3,821,950, budgetary)
Schedule 2012:	RON 850 thousand
Estimates for 2013	RON 5,000 thousand
Estimates for 2014	RON 5,000 thousand
Estimates for 2015	RON 5,000 thousand

5. EFFICIENCY OF EXECUTING THE MAIN CANAL SIRET - BĂRĂGAN

• The following annual additional yields can be obtained from executing the canal and fitting out the irrigation systems:

- soya 32,000 tons
- sunflower 60,000 tons
- fodder 1,800,000 tons
- Fruits, grapes 133,000 tons

The equivalent to this crop increases at the global market price is around EUR 120,000,000/year, which would lead to eliminating the import of cereals and even create some export opportunities.

• As a result of fitting the irrigation system, the animal breeding is expected to grow considerably, leading to an increase in the number of animals in the area and, implicitly, to enhanced use of the animal agricultural production industrialization facilities.

• The vine and wine and fruit processing industry shall also experience a strong growth given that the fitted-out area is one of the most important wine and fruit growing zones in the country, with the vineyards in Vrancea being famous also abroad.

- Execution of the canal could support a flow of 5 cubic m/s for the water supply of the localities (both urban and rural) located in the proximity of the route.
- The social and economic development of the area shall implicitly lead to tourism development, since the North and North-West area of the space between Siret and Ialomita provides for a natural environment with special tourism potential.