



Project PNII 111/2014: Evaluation of the productive potential, the capacity of phytoremediation and adaptability to the hydric stress of some *Salix* genotypes, in improper stations for agricultural crops – SAROSWE (www.saroswe.ro)

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Project period: 01.07.2014 – 15.12.2016:

PARTNERS

COORDINATOR: Banat’s University of Agricultural Sciences and Veterinary Medicine “King Mihai 1st of Romania” from Timisoara
Partner 1: REBINA Agrar SRL
Partner 2: University of Craiova
Partner 3: Forest Research and Management Institute Bucharest

PROJECT OBJECTIVES

- 1.The characterization of the *Salix* sp. hybrids and clones, for the maximum valorization of the productive potential, under specific environmental conditions.
2. The establishment of a genitors collection (living gene bank) of *Salix* sp, their phenotype and genotype characterization
3. The selection of *Salix* genotypes tolerant to hydric stress.
4. Selection of *Salix* sp. genotypes for the phytoremediation process.

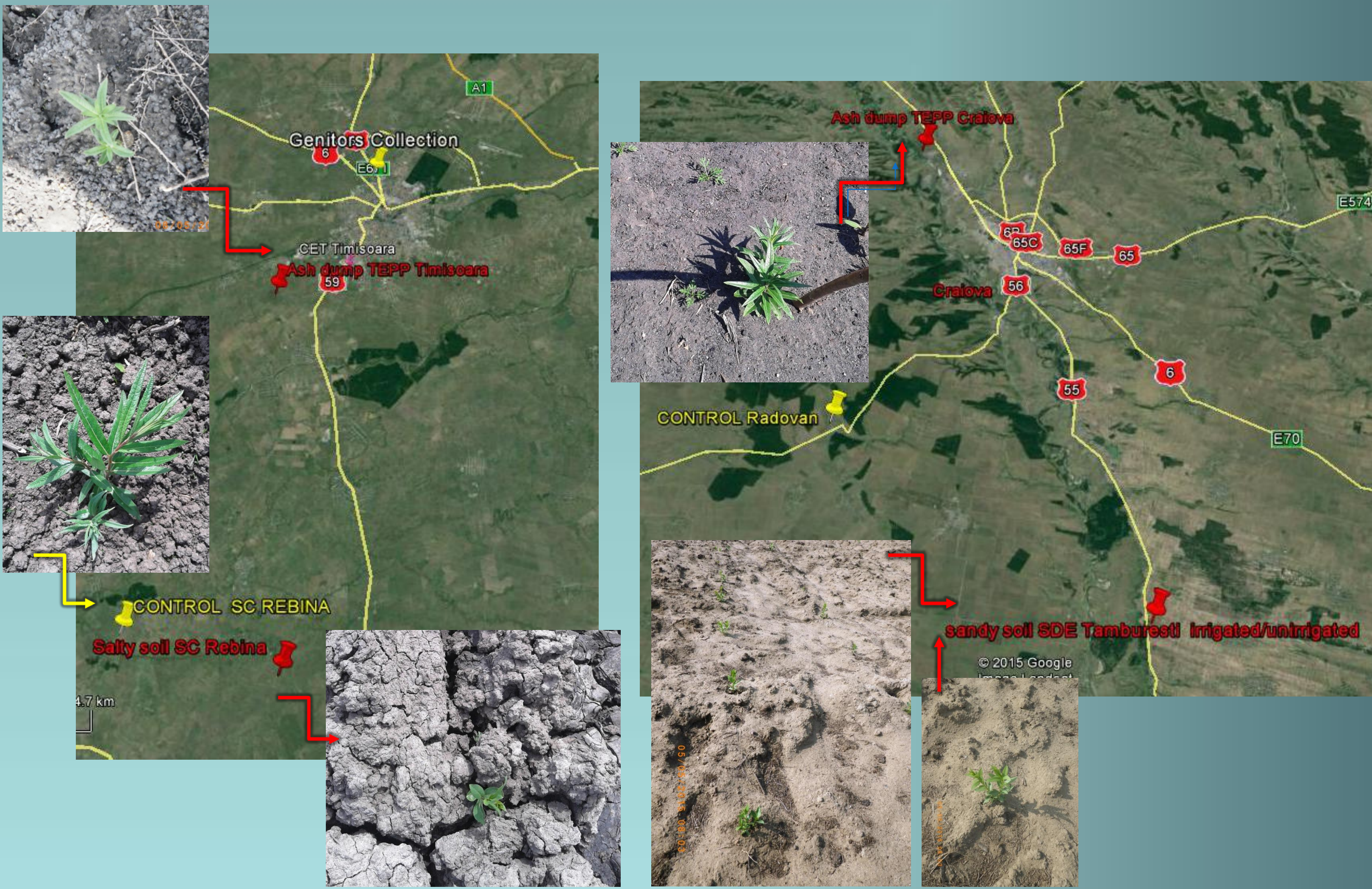
No	Work package	Coord.
1	Evaluation of the productive potential of <i>Salix</i> genotypes in different stationary conditions (7 RO + 7 SE / 7 Locations - Banat-SDE, saline soil, MG; Oltenia - control, irrigated sand, without irrigation sand, MG)	P1
2	Collection, cultivation and analysis of local germplasm sources of <i>Salix</i> sp., for the establishment a collection of genitors	CO
3	Evaluation and selection of <i>Salix</i> genotypes for tolerance to water stress	P2
4	Evaluation of the capacity of phytoremediation of some <i>Salix</i> sp. genotypes	CO
5	Evaluation of resistance to pests and diseases of the <i>Salix</i> genotypes under different stationary conditions	P3
6	Dissemination of results	CO

Final products to be obtained:

- By selecting the most resistant and resilience genotypes (in yield trials conducted in unfavorable environmental conditions, subjected to water stress and soil pollution) there will be elaborated a **eco-technology for degraded lands**;
- Collection of local and European germplasm**, which will be used in a breeding program, in order to obtain new hybrids, that incorporates indigenous genetic material, better adapted to environmental conditions and improved yield capacity;
- Genetic and biochemical characterization of the genetic material from the local collection of ICAS and collected from nature, with two completions: **biomass energy and salicylic acid production**.

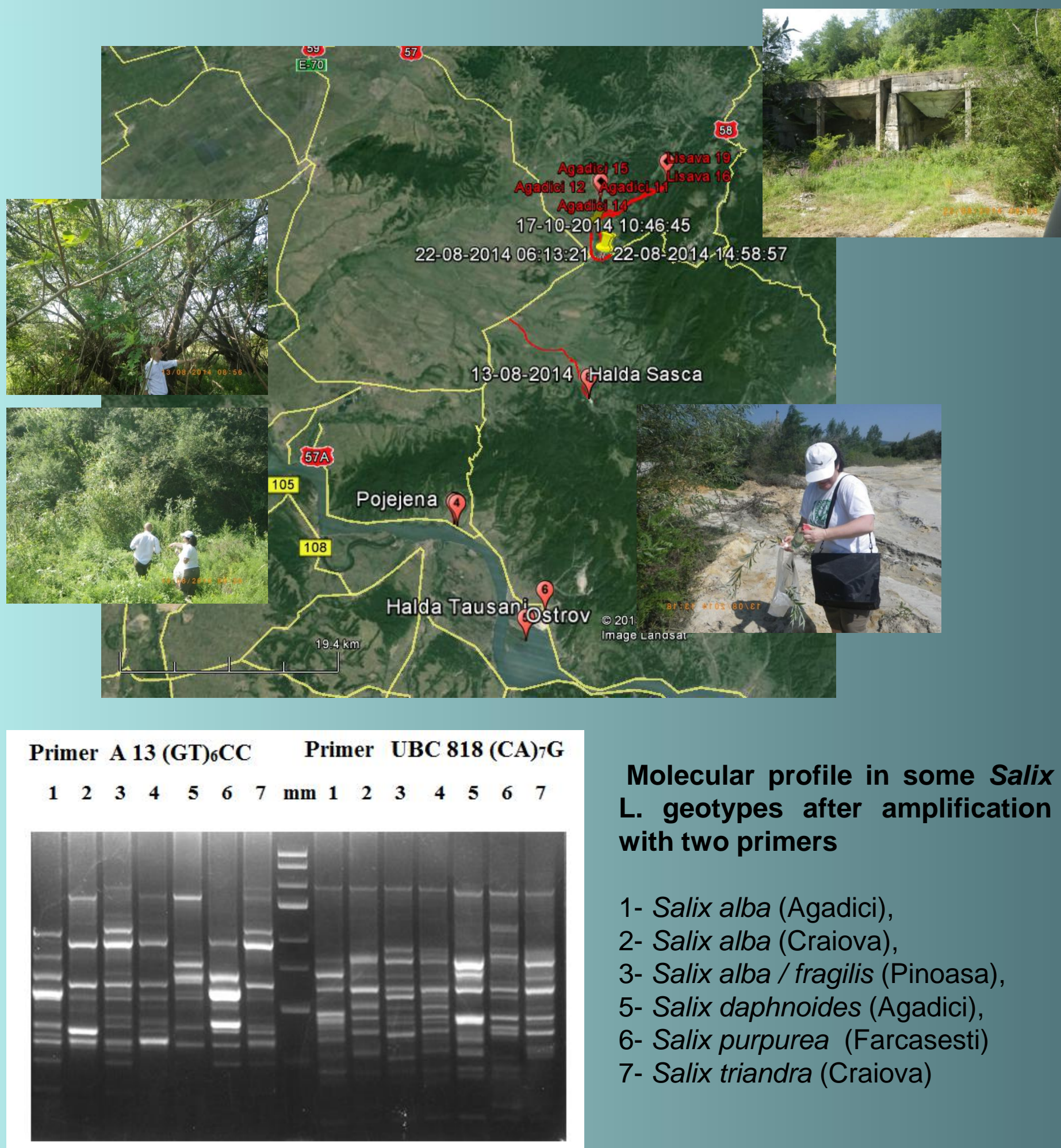
RESULTS 2014 (July)-2015 (May)

WP1 The establishment of 7 comparative *Salix* sp. culture - three cultures in the west of the country (Control, a salty soil surface – REBINA Agrar SRL, a surface on contaminated soils [crude ash] – Thermoelectric Power Plant Timisoara) and four cultures in the south Oltenia (Control, two areas on sandy soils irrigated/unirrigated , a surface on contaminated soils [30 years old ash] – Thermoelectric Power Plant Craiova). **Complete soil analysis and characterisation.**



WP2 Sample collection and the establishment of the genitors culture (42 accesions, 12 species) in BUASMV Timisoara Didactical Experimental Station. **Phenotypic and preliminary molecular characterisation.**

No.	Collection data	Location	Specie
1.	15.08.2014	Sasca Haldă 3	<i>Salix purpurea</i>
2.	15.08.2014	Ostro	<i>Salix fragilis</i>
3.	15.08.2014	Pojena 1	<i>Salix fragilis</i>
4.	15.08.2014	Pojena 2	<i>Salix fragilis</i>
5.	15.08.2014	Pojena 3	<i>Salix purpurea</i>
6.	15.08.2014	Sasca Haldă 4	<i>Salix purpurea</i>
7.	15.08.2014	Haldă Moldova Noua Tăuțeni	<i>Salix alba</i>
8.	15.08.2014	Pojena 4	<i>Salix pentandra</i>
9.	15.08.2014	Sasca Haldă 2	<i>Salix hastata</i>
10.	15.08.2014	Sasca Haldă 1	<i>Salix incana</i>
11.	22.08.2014	Agadici 11	<i>Salix fragilis</i>
12.	22.08.2014	Agadici 12	<i>Salix daphnoides</i>
13.	22.08.2014	Agadici 14	<i>Salix incana</i>
14.	22.08.2014	Ușava 16	<i>Salix triandra</i>
15.	22.08.2014	Ușava 18	<i>Salix caprea</i>
16.	22.08.2014	Agadici 13	<i>Salix daphnoides</i>
17.	22.08.2014	Ușava 19	<i>Salix fragilis</i>
18.	22.08.2014	Agadici 15	<i>Salix cinerea</i>
19.	22.08.2014	Ușava 17	<i>Salix daphnoides</i>
20.	10.09.2014	Podiș 36	<i>Salix alba</i>
21.	16.09.2014	Sohodol 860 cm	<i>Salix alba</i>
22.	16.09.2014	Z. Pocruia – Tură 2CV a 70	<i>Salix alba (fragilis?)</i>
23.	16.09.2014	Frânculescu Pocruia 1 CV	<i>Salix viminalis</i>
24.	16.09.2014	3 CV Pocruia – Prun 16.09.14	<i>Salix fragilis (triandra?)</i>
25.	19.09.2014	10 CV	<i>Salix triandra</i>
26.	19.09.2014	12 CV	<i>Salix triandra</i>
27.	19.09.2014	9 CV	<i>Salix triandra</i>
28.	19.09.2014	5 CV	<i>Salix babylonica</i>
29.	19.09.2014	7 CV	<i>Salix alba</i>
30.	19.09.2014	8 CV	<i>Salix viminalis</i>
31.	19.09.2014	6 CV	<i>Salix alba</i>
32.	19.09.2014	11 CV	<i>Salix alba</i>
33.	08.10.2014	Haldă Pinoasa 7H	<i>Salix purpurea</i>
34.	08.10.2014	Haldă Pinoasa 8H	<i>Salix fragilis</i>
35.	08.10.2014	Haldă Peșana Nord 2H	<i>Salix alba</i>
36.	08.10.2014	Negomir (drum) 6	<i>Salix alba</i>
37.	08.10.2014	Haldă Fărcățești (nouă) 3H	<i>Salix pentandra (S. fragilis?)</i>
38.	08.10.2014	Haldă Fărcățești 5H	<i>Salix purpurea</i>
39.	08.10.2014	Haldă St. Agro 9H	<i>Salix alba</i>
40.	08.10.2014	St. Agro Rovinari 10	<i>Salix viminalis</i>
41.	08.10.2014	Haldă Fărcățești 4H	<i>Salix alba</i>
42.	08.10.2014	Haldă Peșana Nord P1	<i>Salix purpurea</i>



WP5 Preliminary evaluation of pests and diseases of the *Salix* sp. genitors “in situ”

WP 6 Results dissemination: 3 presented papers in national symposiums; 1 IDB publication; 1 workshop with partners, scientific comunitate and potential SRC cultivators