



## Module 6. SLM implementation and scaling out

In the municipality Pelagićevo (Posavina Region) on the fields of Agricultural firm "Napredak" SLM technology Irrigation was conducted. First phase of the subproject "Rehabilitation of irrigation systems" is finished, co-financed by World Bank, International Development Association-IDA and Ministry of Agriculture, Forestry and Water Management of Republic of Srpska in accordance with Co-financing amount confirmed at Letter of endorsement. Purchase of one linear by PD "Napredak" was made in the second phase. Intensive irrigation was carried out on about 40% of the area (80 ha). On irrigated areas, yields were higher by 35-40% of the yields on irrigated areas (8.1 t/ha, compared to 5.8 t/ha).

In the municipality Šamac - Flood protection measures were implemented. Arranging riverbed of Bosnia river and construction of defence embankments, rehabilitation and extension of canal drainage network channels (Tinja – Tolisa, Kladik, Eginovac, Brvnik, Kosnice, Grebnice) and arrangement of the natural watercourses continuous are developing and successively carried out in accordance with the predicted dynamics and the inflow of funds.



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Bare land is wide spread in the south part of the Republic of Srpska, Herzegovina region which is targeted as a very vulnerable area, that suffering from frequent drought, scarce vegetation cover, karst, frequent wildfires and consequently bare land expansion. Introduction of SLM trough afforestation of bare land served as important step forward for:

Awareness raising among local stakeholders about importance of vegetation cover and preservation from wildfires;

Active inclusion of local communities in SLM on karst, gathering decision makers of forestry sector.

Drawing attention of Trebinje (pilot spot) and Herzegovina region as a “hot spot” recognized by LDN process, in order to stress out necessity of additional funds for afforestation on karst, developing specific technique and approach to improve current low success.

Existing sustainable forest management practices and SLM for karst area:

- Afforestation by planting - on areas suitable for afforestation
- Re-afforestation of areas with low success of previous afforestation
- Melioration of forest plantations
- SLM measure used under project: Afforestation on karst (bare land)
- Seedlings type: Pinus nigra, Pinus halepensis, Robinia pseudoacacia
- Density of planting: 1150 seedlings per ha.

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### Description of measure:

- Preparation of soil for planting is done by digging a hole (50 x 50 x 50 cm) in all favourable places (cca 1150-1400 places/ha).
- The excavated rocks are placed as a sub-base on the underside of the hole. Main function of this SLM technique is to reduce soil erosion on steep slopes due to precipitation intensity.
- The most favourable time for planting is October and November.
- Fertilization has been used together with planting process.
- Seedlings are protected from animals, plant diseases and pests.



Fig. 1. Afforestation on karst (bare land) (Kapović Solomun, M. 2017)



Fig. 2. Successful example of afforested bare land (Kapović Solomun, M. 2017)



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### SCALING OUT

In the second phase of project, public call for selection of 3 new locations for irrigation for scaling out was published:

- municipality Bratunac 436 ha,
- municipality Ljubinje 280 ha,
- municipality Laktasi location Maglajani 160 ha.

In addition to that, accordingly to the plan of the Ministry of Agriculture, Forestry and Water Management of Republic of Srpska to build-up of river channel Osorna-Borna-Lijevcanica for irrigation of 14000 ha, construction technical documentation was prepared.

Also, afforestation on karst and bare land is scaled out on 373 ha in the Republic of Srpska (on 76 micro locations);

- 750.000 seedlings is afforested
- Amount: 1.475.855 KM (2016 and 2017) is invested

Scaling out OTHER SLM measures on the territory of Republic of Srpska in 2017:

- Soil amelioration for natural forest regeneration on 275 ha,
- Afforestation by planting seedlings of 232 ha,
- Control weeds and disposal of undesirable forest species on 232 ha,
- Melioration of the coppice forests on about 120 ha.