

SUMMARY OF THE THIRD NARRATIVE SEMI-ANNUAL REPORT FOR THE PROJECT KATUN

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In accordance to the Approved project application (Annex One of the GA), the overall objective of the project: "Valorising the Montenegrin Katuns through sustainable development of agriculture and tourism - KATUN" is to provide knowledge bases for sustainability of the mountain agriculture and to enhance its competitiveness, to preserve important part of the cultural heritage of rural areas and boost the agro-tourism at the katuns, as specific spots or nuclei for further social-economic development on Montenegrin mountains.

The KATUN project is structured in a way that the engaged researches are highly complemented and it provides integral development of the mountain regions in Montenegro. It is becoming a link between mountain agriculture and new tourism initiatives for the benefit of the rural society and thus for the whole country.

In the third six-month reporting period, the detailed objectives of KATUN project are: to continue with transfer knowledge and innovations to the agriculture and agro-tourism enabling them to be more competitive, thereby contributing to the development of a knowledge-based society; to serve and determine the possibilities for entrepreneurship in the specific multifunctional sector of Montenegrin agriculture (mountainous livestock production); to hold the international conference as the important milestone of the project; to create the first new dairy products (different types of cheese) at the commercial partners' premises; and to finish inventory of the all katuns in Kuči region (active and those which are not used) in order to achieve the new level of sustainable cultural heritage protection and its incorporation in modern agricultural and tourism tendencies.

All project partners have actively been participated in the project realisation: BTF as the leading partner; 2 national RTD entities - HIM and FTHM; 4 international RTD entities - UL (Slovenia), SLU (Sweden), ITABC and UoB (Italy) and 3 national private entities - SMEs (HMD as medium-sized, TOH as small-sized enterprise and INTERTEHNA Berane, medium-sized enterprise, as a new engaged commercial partner).

The KATUN project is implemented through the following six work packages:

WP1: Fostering of the traditional production technologies and marketing of the katuns products;

WP2: Social dimension of the life in katuns - reinforcing their regional image;

WP3: Diversification of economic activities at the katuns: boosting agro-tourism;

WP4: Strengthening the research capacities (the human resources and research infrastructure);

WP5: Maximize the sustainable impact and visibility of the KATUN project and

WP6: Management.

The project Management team was very active in performing all the tasks and duties defined by the project document. In addition to the Project Leader and the Project Manager, the management of each of the six work packages (WP Leaders and their substitutes) have had an essential role in the performing all tasks and duties and the Financial Manager too.

The outputs achieved so far are: research and technological development joint work with the partners, established in the previous reporting period, has been continued in the 3 main directions:

- Sustainable agriculture and forestry,
- Agro-tourism in mountains and
- Protection and promotion of rural heritage.

The main results in the area of sustainable agriculture and forestry are:

- Wide and detailed survey (with detailed questionnaire) was completed. The survey results on the all katun resources and the obtained data were already presented/published in different international conferences (in Portugal, Italy, Northern Ireland);
- The project results achieved in the work packages: WP1, WP2 and WP3 presented at the our international Conference held at Zabljak in Sept. 2016 (14 oral and 4 poster presentations);
- For the purposes of determining the botanical composition of pastures and meadows and their impact on the milk quality the samples of grass on three time periods since the beginning until the end of the vegetation season were collected (six in total) from both mountain regions - Durmitor and Kuci;
- Based on the blood samples of autochthonous sheep breeds (Bardoka, Ljaba and Pivska pramenka) collected in the previous period (50 samples per each breed) genetic characterization of beta lacto globulin gene polymorphism by PCR RFLP method was done, as well as preparation of DNA samples for microsatellite analyses in international laboratory;
- With the aim to investigate quality and hygienic parameters of raw milk used for production of dairy products and traditional dairy products 68 samples of raw milk from Kuci area and 70 samples from Durmitor were collected and analysed; 62 samples of Kuči cheese and 70 samples of Skorup (kaymak) were collected together with original technology for Kuči cheese and Skorup were recorded;
- The laboratory analyses (high-throughput sequencing) of the plant material for morphological and genetic characterisation of *P. heldreichii* symbionts and pathogens collected in the previous period (cca 150 needle samples) is underway;
- New data collected and will be entered into the GIS databases for plants and fungi
- Transfer of knowledge: 2 trainings in sustainable agriculture, and one in valorisation of non-wood forest products in and boosting agro tourism for about 45 participants were finished;
- Equipment: the dairy equipment was delivered to the newly selected commercial project partner - INTERTEHNA Berane, installed and functioning.

In the area of protection rural heritage:

- 4 archival/librarian researches with 12 person/days performed
- 45 field visits with 89 person/days performed
- Precise determination of location and condition of 24 katuns in 8 areas, their mapping and photo documentation
- Database with 16 new katuns and 247 belonging objects added
- Significant amount of data for monograph on Kuči Mountains' katuns were acquired
- Leaflet on forest fires, to raising the public awareness and social responsibility on sustainable use of resources fires was prepared in local language and distributed in both project areas.

In the area of sustainable tourism the work has been continued:

- the desk research on preparation of the conference papers related to these topics, presented at the international conference *in* Zabljak.
- the field work - interviews and data collection serving as a basis for the research outputs and manuals in preparation.
- the brochure "Experience Katuns", aiming to present katuns and their tourist potential to the relevant stakeholders (Ministries, tourist organizations, tour operators) was created.

Human resources: the international Conference was held with participation of the experts from many countries - the conclusions and recommendations as the Conference Declaration was prepared;

- : website, but also other social network tools (Facebook, twitter, etc.) are fully functional, printed dissemination tools as leaflets were issued, many the project presentations in medias were held.

Management structure is functioning in accordance to the project plan - the management team has meetings regularly, minimum once a month. Communication network is functioning towards outside (HERIC team and international partners) and internally in the project team.

As stated in Annex 1 of the Grant Agreement, the impact of the KATUN project can be classified into three major categories:

- research impact - a strong step in creating interdisciplinary compact team;
- internationalisation - cooperation with international partners with an integrated research agenda;
- economic impact in two dimensions: the first - strengthening competitiveness through intensive cooperation with the producers and companies and the second - to provide sustainability (new knowledge, exploitable outputs, new RTD ideas and projects launched).

The project outputs achieved so far are a good base to conclude that the project impact will be achieved completely and some additional added value will be attained, what is elaborated further down through the text.