INVENTORY OF MEDICINAL AND AROMATIC PLANTS AND WILD BERRIES IN KOSOVO

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Content

1. Introduction

Geographical position, historic past of the plant kingdom, and a range of other parameters, including the relief configuration, geologic and pedologic composition, climate conditions have determined that the Republic of Kosovo has a rich and rather interesting flora and vegetation. This was proved and documented by the up to date researches and publications, including both, those on flora at the Balkans level as whole and those of more a more limited format.

The first data on flora and vegetation of Kosovo dates from the first half of the XIX century and are introduced by Ami Boue. Significant contribution to the research of flora and vegetation of Albanian Alps gave also other authors from Kosovo and Europe.

The biodiversity values increase especially by a big number of endemic and steno-endemic plants that were and are the most important resources that should be preserved with zealotry. It should be emphasized that these resources have been and still are endangered from the anthropogenic elements. Areas of special importance are river canyons, and in particular subalpine and alpine zones rich with relict and endemic-relict species, and with MAP and Wild Berries (WB).

Climate Conditions

Kosovo has a very good geographical position. It is located almost in the center of the Balkans, having an aerial distance of 90 km from the Adriatic Sea and 220 km from the Aegean Sea.

During the summer period, climate of Kosovo is influenced by the movement of the high pressure air from the sub-tropic area toward north that is under influence of the cyclone activity from the Atlantic Ocean and the Mediterranean Sea, and during the winter under the influence of the Siberian anticyclone.

In Kosovo it is possible to differentiate to basic climate regions: mountains and lowland.

The average annual air temperature in the low and hilly lands is 10.72 ^{0}C. The coldest period extends in four moths (December, January, February and March). The lowest average air temperature is in January (- 0.9 ^{0}C), while the highest is in August (21.15 ^{0}C).

As part of the mountains area are considered areas having an altitude of over 1500 m. Subalpine and alpine areas that are very rich with MAP and WB, belong to the mountains climate, with elements of the true subalpine and alpine climate. In these areas dominate extreme climate conditions. The average annual temperature is around 1^{o}C. The average monthly temperature in January is –8^{o}C, while during the summer it reaches at around 10^{o}C. Summers are short and fresh. Autumns are warmer than springs. In April the average temperature is bellow 0^{o}C, while in October it is above 0^{o}C.

The annual rainfall average is above 1500 mm. There are more rainfalls during the cold months of the year (around 1000 mm), while during the vegetation period are less (around 500 mm). Winters are cold and long.

Vegetation

Phytocenoses that represent scientific value and natural sources of MAP and WB

When it comes to vegetation the most important are the endemorelict phytocenoses most of which are present in Albanian Alps (Kosovo) and in Sharri Mountains, and also

in Koritnik and especially Pashtrik that may even be considered as a natural self-protected park.

In the river valleys dominate willow (Salix sp.) and poplar (Populus sp.) species forming phytocenoses determined by the order Populetalia.

The hilly area of Kosovo is mainly covered by the oak forest dominated by varieties as are Quercus frainetto (Italian Oak), Quercus cerris (Turkey Oak), Quercus pubescent, Quercus petreae (Sessile Oak), and Castanea sativa (chestnut) spread in the western mountains of Kosovo that belong to the order Quercetalia pubescentis.

In the area of Kortnik and Pashtrik is present and in many locations is dominating the Macedonian Oak (Quercus trojane) that has a scientific importance since it forms the characteristic phytocenosis 'Quercetum trojanae dukagjini'.

In the regions dominated by the serpentine rocks it is noticed a significant presence of Prickly Juniper (Juniperus oxycedrus) and Forsythia (Forsythia europae) as endemic plants of Kosovo and Albania.

Beyond the oak area in Kosova expand beech forests (Fagus moesiacae) that form various phytocenoses of the order Fagetalia sylvestris:

In Albanian Alps, in Koritnik, and in Sharri Mountains are spread quite interesting species including the Macedonian [Balkan] Pine (Pinus peuce) and the Bosnian Pine (Pinus cheldreichi) forming forests of scientific significance that as such should be protected and properly managed.

The highest forest zones are formed by the Mountain Pine (Pinus mugo) that especially in the Albanian Alps forms forests in the altitudes up to 2000 m. Even though the wood is not of a good quality it has importance as medicinal and industrial plant and also for the nature, since it represents the best protection of land from erosions that begin from the top and continue up to the lowest areas.

In the subalpine and alpine area dominate plants of shrub species as are juniper (Juniperus nana), bilberry (Vaccinium myrtillus, V. uliginosom) and perennial herbaceous plants including many MAPs.

As part of the subalpine and alpine pasturages' vegetation in the Albanian Alps an important place has the herbaceous vegetation of Ass. Carici Crepidetum dinaricae and Ass. Festucetum albanicae.

In the Albanian Alps and in the Sharri Mountains is well developed, also, the subsoil vegetation represented by Ass. Senecio-Rumicetum alpini that is usually spread in the subalpine zone.

2. Purpose

The purpose of this research is to make an inventory of MAP and WB for whole Kosovo that will serve as source of information on various species of MAP and WB present in Kosovo. The inventory is made with support of the project "Promotion of Horticulture in Kosovo", implemented by "Intercooperation" and financed by the Swiss and Danish governments, and also is partially supported by the Project of CARE Kosovo, financed by the Dutch Government, as part of activities for the development of the MAP and WB sector.

The current inventory will serve to the Kosovo Institutions and other stakeholders engaged in the sector to present the economic potential of MAP, and it will be a solid

foundation serving for certifications based on international quality standards, i.e. organic certification.

3. Research Objectives and Goals

Main objectives:

- Make an inventory of MAP (Medicinal and Aromatic Plants) and WB (Wild Berries) growing spontaneously in the territory of Kosovo.
- Develop a map with information on MAP
- Establish a natural organic collection
- Adapt and implement the overall MAP collection rules

Overall Objectives:

- Educate MAP collectors on new collection methodologies.
- Establish necessary links between licensed companies and small collectors of MAP and WB as an important element for the functioning of this important socio-economic system.
- Inform rural population on capacities of MAP and WB and its importance for the households' development.
- Recommend appropriate adjustments in the sector, including drafting of a state strategy on further and sustainable development of this sector of national importance.

4. Methodology

Daily and weekly excursions were organized in all regions rich with MAP and WB in whole territory of Kosovo. Research was undertaken during 2007 in the Albanian Alps of Kosovo (Bjeshkët e Nemuna), during 2008 in Sharri Mountains and the area of Gollak, Viti and Gjilan, while during 2009 in the northern and central parts of Kosovo.

Regions rich with MAP and WB were visited.

In each plot rich with MAP and WB the following actions were undertaken:

- Inventory of MAP and WB is done, and visually is determined surface in hectares for each species. Presence and quantity of MAP and WB presented with numbers from 5 to 1.
- A balance is used to measure quantities of herbaceous and sub-shrub MAP species from surfaces from 1 m^2 to 100 m^2. Average per hectare is calculated and multiplied with the number of hectares.
- In case of tree and shrub MAPs, first was determined the number of individuals per hectare and extracted the average weight (kg) per individual, and then is calculated the quantity kg/ha.
- Measurements are done with GPS: - coordinates and altitude.

Calculation of the provisional surface (Ha)

Surface in hectares with MAP and WB is determined visually. In locations where the measurements are done, Abundance (number of individuals per hectare) and Dominance (cover occupied by the individuals of the same species) is presented with numbers from 5 to 1 (method used in phytocenology by the botanist Brown-Blaquet, but modified in order to calculate the surface in hectares per species), where:

- Number 5 represents approximately 100 ha with MAP;
- Number 4 represents approximately 80 hectares with MAP;
- Number 3 represents approximately 60 ha with MAP;
- Number 2 and 1 show that a species has a law presence in a certain surface

In order to determine number of hectares with MAP and WB, the sum of numbers (5 to 1) is multiplied with the multiplier 20 (5 x 20 = 100 ha), i.e.

Tab. 4. Example: Calculation of the Juniper's (Juniperus communis) quantity

Specie	Sum of Measurements	Multiplier	Total (ha)
Juniperus communis	83	20	1,660

Remark - for species: bilberry (Vaccinium myrtillus), juniper (Junipeus communis), Petaesites hybridus and P. albus is calculated the fresh quantity per hectare.

Calculation of quantities in Kg

a) In case of herbaceous MAPs, surface part/herb of which is collected, quantity in kg is calculated as in the following example:

Origanum vulgare - herb

In 10 places/ha based on the random selection method, with a sickle is harvested 1 m ² (herb), then the fresh quantity per 1m² is weighted. This quantity is dried and weighted again – out of 0.860 kg of fresh weight remain 0.215 kg of dry weight. 10 measurements are done and the average is extracted. In case of Origanum vulgare, after measurements, it is concluded that only 15% of the surface reviewed is rich with this species. It means that out of 10 000 m² of a hectare only 1500 m² are used in calculation. Initially, it is multiplied number of m² with the quantity of MAP per 1 m². Then the average is extracted per 1 hectare, and the deriving number is multiplied with the number of hectares. Like this we get the quantity in kg for a certain area, i.e.:

Tab. 1. Example: Calculation of the Wild Marjoram's (Origanum vulgare) quantity

Surface with wild marjoram (m ²/ha)		Dry weight (Kg/m²)		Total (kg/ha)		Surface in Sharri Mountains (ha)	Total of wild marjoram (kg)
1,500	X	0.215	=	322.5	X	280	90,300

b) In order to calculate the quantity of the tree fruits, as first is measured the weight of the fresh product from one individual (being flower, foliage, fruit or cortex). Then the dry weight is calculated. Visually it is determined the number of individuals per hectare and then the average is extracted.

Example: Wilde apple – fruit (Malus sylvestris: - fructus)

Fruits were harvested from several wild apple tries and the average of fresh weight per tree is extracted. Fruits are cut in pieces and dried, then the average per tree is calculated, and it was 25 kg of dry fruits. Number of trees per hectare is counted in several places. The average is extracted; in places marked with 5, number of trees is counted at around 40. Like this is calculated the possible quantity in kg per hectare, i.e. 25 kg/tree X 40 (individuals/ha) = 1000 kg/ha; so, in places where the wild apple is

prevalent (5) it is possible to harvest 1000 kg/ha. Within Sharri Mountains, according to the provisional measurements are approximately 140 ha. If number of hectares (140) is multiplied with kilograms it derives that in Sharri Mountains it is possible to collect around 140 000 kg. Calculation: 140 (ha) X 1000 kg/ha = 140.000 kg.

Tab. 2. Example: Calculation of the Wild Apple's (Malus sylvestris) fruit quantity

Number of trees pcs/ha		Apple weight per tree (Kg)		Total (kg/ha)		Surface in Sharri Mountains (ha)	Total of apple in Sharri Mountains (kg)
40	X	25	=	1,000	X	140	140,000

c) In order to calculate the quantity of herbaceous MAPs in kg when the flower or bloom is harvested, i.e. Cowslip (Primula veris) flower is harvested in several places in 1 ha. The fresh quantity is measured and then it is dried and weighted again. Like this it is extracted the average expressed in kg/ha. This figure (average) was 5 kg of dry-measure per ha in places where Cowslip is marked with number 5. In order to calculate the quantity in a hectare the following is done: number of hectares (1840) is multiplied with kg/ha (5kg/ha) and like this is established the quantity in kg.

Tab. 3. Example: Calculation of the Cowslip's (Primula veris) flowers quantity

Surface with Cowslip (ha)		Dry-measure (Kg/ m ²)		Total (kg/ha)		Surface in Sahrri Mountains (ha)	Total with Cowslip in Sharri Mountains (kg)
1840	X	0.0005	=	5	X	1,840	9,200

5. Study Results

Information provided in the current study on MAP and WB in the Republic of Kosovo is authentic and acquired during a three years study (2007, 2008 and 2009). During 2007 was researched the western part of Kosovo (Albanian Alps of Kosovo) starting from Mokna Mountain continuing until Rrasa e Zogut and Regions of Gollak, Kamenica, Gjilan and Viti. That year, all companies and stakeholders were contacted, links established, and important information on MAP and WB provided.

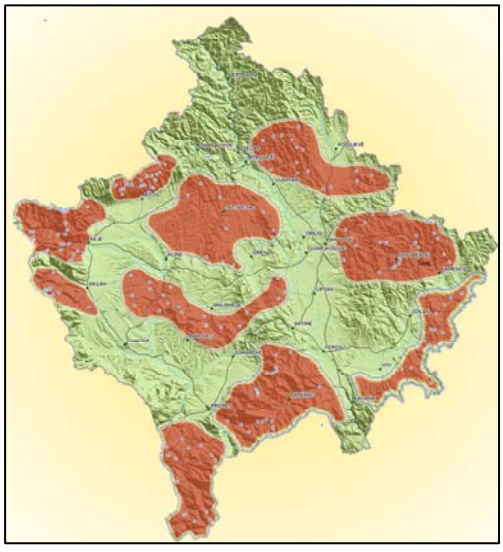


Fig. 1. Researched areas

During 2008 was researched the southern and eastern part of Kosovo (Sharri Mountains) starting from Prizren until Kaçaniku Canyon. That year, assistance was provided to companies and collectors of MAP, establishing links and information exchange within the system as whole.

During 2009 was researched the northern and central part of Kosovo, including one part of Dukagjini. The northern part (Regions of Mitrovica and Podujeva) has a better basis and infrastructure for collection of MAP and WB compared to the central part that also represents

quite a good potential, especially in case of WB.

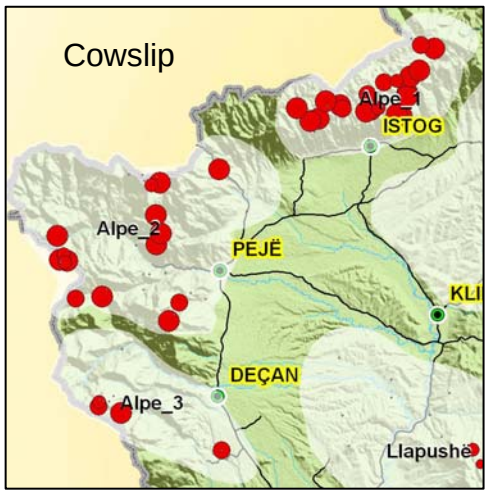
Additional information is acquired from collection companies, municipalities, the Forestry Department, and small collectors.

5.1. Albanian Alps of Kosovo

Geographical position

The Albanian Alps are in the western part of Kosovo and many authors call them the Western Mountains of Kosovo. According to some authors they are an extension of the Dinaric Mountains.

Taking into account canyons of Deçan, Peja and Zhleb the Albanian Alps within Kosovo borders may be grouped in four groups.



- The first group (Hills of Istog Municipality) include area from the Mokna Mountain till the Zhleb Canyon.
- The second group (the northern part of Rugova) includes mountains extending from north and northeast of the Rugova Canyon till the Zhleb Canyon.
- The third group (Central Alps) includes mountains between the Rugova Canyon and the Deçan Canyon.
- The fourth group (Gjeravica and its surroundings) extends at south and west of the Deçan Canyon, in direction of west and southwest till border with Albania and Montenegro.

Geological Composition

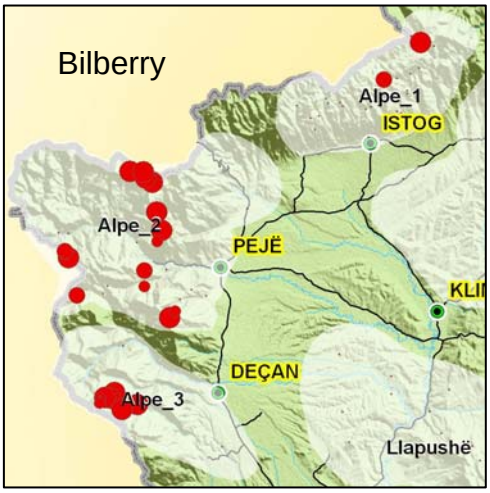
Geological composition of the Albanian Alps is quit complicated and this is clearly seen in canyons of Lumbardhi River, Peja, Deçan, Lloçan, and Erenik River. In addition to lime rocks that comprise the biggest part of the Albanian Alps, the silicate rocks are present also, mainly in the biggest part of the Gjeravica Massif, and the serpentine rocks present in a fragmentary manner in Gjeravica, Rops, Dervish Kom, Kurvallë and Koprivnik.

Pedologic [Soil] Composition

The pedologic cover of the Albanian Alps is quit heterogeneous and it is comprised of several types of soil.

The pedologic cover of the Albanian Alps may be classified in several types of soil. The most important are the following:

- Typical ranker in neutral rocks,
- Typical ranker in acidic rocks (pH 4-5),
- Lithosol and regosol soils in carbonate,
- Acidic hydrogen soil,



- Red brown soil on hard limestone strata,
- Rendzine soil on dolomite rocks or limestone.

MAP and WB in the Albanian Alps of Kosovo having economical potential

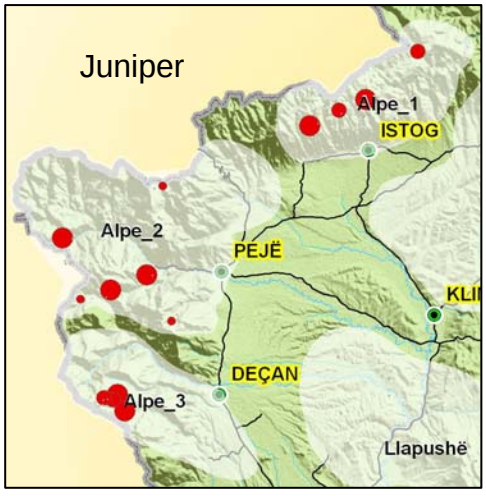
The Albanian Alps of Kosovo include a fairly large territory rich with MAP and WB. This was made possible by a number of factors including their extension even over high altitudes (up to 2656 m). Research work in this region on economical value and potential of MAP was conducted in 2007.

Based on this research work it was possible to complete the inventory of MAP and WB having economical potential. These plants are registered and presented in the table (Tab. 5)

Tab.5: Quantity of MAP and wild fruits in the Albanian Alps of Kosovo

	Istog Hills	North side of Rugova	Central Alps	Gjeravica	Total
Scientific Name			**Kg**		
Achillea millefolium (H)	65,300	26,650	20,150	9,100	121,200
Aconitum napelus (R)	19,800	25,300	9,900	14,300	69,300
Anemone nemorosa (H)	29500	34,220	22,420		86,140
Antennaria dioica (H)	1,800		2,400		4,200
Arctostaphyllos uva-ursi (Fol)		23,300			23,300
Asperula odorata (H)	7,800	3,600	2,400		13,800
Atropa belladona (Fol)	1,080	900	99	900	2,979
Bellis perennis (Fl)	14,000	1,480	16,280	5,920	37,680
Betua pendula (Fol)		68,000	16,000	16,000	100,000
Carlina acaulis (R)	28,000	4,800	14,000	1,200	48,000
Centaurium erythrea(H)	18,000	12,000	27,000		57,000
Cetraria islandica (H)	20,700		27,000		47,700
Cichorium intibus (R)		12,800	9,600		22,400
Convollaria majalis (H)	28,800	9,600	60,000		98,400
Cornus mas (Fr)	45,600	98,800	144,000		288,400
Corylus avellana (Fr)	14,000	15,000	14,000		43,000
Crataegus monogyna (Fl-Fol)	95,000	90,000	20,000		205,000
Crocus sp.(ST)	240	48			288
Digitalis lanata (Fol)	16,100	6,000	16,800		38,900
Epilobium angustifolium(Fol)		14,700	21,000	3,500	39,200
Fragaria vesca (Fol)	26,000	7,812	9,140	1,736	44,688
Frangula alnus (C)	1,800		1,050		2,850
Fraxinus ornus (Fl)	84,000	25,200	25,200		134,400
Galium verum (H)		67,320	29,900		97,220
Gentiana asclepiadea (R)	2,012	4,022	4,600	1,040	11,674
Gentiana punctata (R)	19,600	5,600		25,200	50,400
Geranium macrorrhizum(R)	326,400		76,800		403,200
Hedera helix (Fol)	50,400	14,400	21,600		86,400
Hypericum alpigenum (H)		28,800	27,200	16,300	72,300
Hypericum perforatum (H)	129,600	90,720	87,800	7,200	315,320
Juniperus communis (Fr)	195,000	20,000	60,000		275,000
Juniperus nana (Fr)	36,000	6,000	32,000	36,000	110,000
Juniperus oxycedrus (F)			14,400		14,400

	Istog Hills	North side of Rugova	Central Alps	Gjeravica	Total
Scientific Name			**Kg**		
Malus sylvestris (F)	80,000	60,000			140,000
Mentha longifolia(Fol)	11,200	16,800	39,000		67,000
Ononis spinosa					-
Orchis morio (B)	4,200	1,540			5,740
Origanum vulgare (H)	25,700	45,000	19,320		90,020
Petasites albus (R)		50,000	100,000	50,000	200,000
Petasites hybridus (R)	72,000	126,000	342,000	90,000	630,000
Primula acaulis (Fl)	8,400	6,300	3,000		17,700
Primula veris (FL)	11,040	3,840	4,080	1,440	20,400
Prunus spinosa (Fr)	28,000	21,000	28,000		77,000
Pteridium aquilinum (R)	308,000	154,000	616,000		1,078,000
Pyrus sp.	40,000				40,000
Robinia pseudoacacia(Fl)	21,000	63,000	37,800	2,000	123,800
Rosa sp. (Fr)	288,000	144,000	40,000		472,000
Rubus fruticosus (Fr)	7,200	24,000	14,400		45,600
Rubus idaeus (Fr)	23,200	4,400	7,200		34,800
Salix alba	20,000	30,000	20,000		70,000
Sambucus nigra (Fl)	12,480	2,880	7,680		23,040
Tanacetum vulgare		7,200	14,400		21,600
Taraxacum officinale (Fol)	30,800	50,000	7,000	3,960	91,760
Teucrium chamaedrys (H)	22,400	21,120	23,760		67,280
Thymus sp. (H)	80,900	40,480	82,800	33,112	237,292
Tilia cordata (Fl)	45,000	12,000	18,000		75,000
Tussilago farfara (Fol.)	37,800	38,850	38,800	5,250	120,700
Urtica dioica (R)	172,800		18,000	18,000	208,800
Vaccinium myrtillus (Fr)	27,000	99,000	84,000	93,000	303,000
Veratrum album.(R)	62,400	25,600	11,200	33,600	132,800
Verbascum thapsus (Fl)	7,650	4,950	2,700	1,350	16,650
Veronica officinalis (H)		6,900	18,400	9,200	34,500
Viola odorata (Fl)	890		120		1,010
Viola tricolor (Fl)	2,800		168	168	3,136
				Total	**7,413,367**

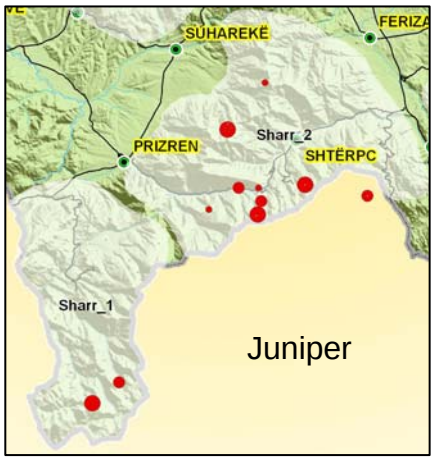


Based on table 5 it is possible to conclude that this region is rich with MAP and WB. MAPs having an economical importance and demanded by the world markets are bilberry (Vaccinium myrtillus), juniper (Juniperus communis), cowslip (Primula veris), elder (Sambucus nigra), wild apple (Mallus sylvestris), whitethorn (Crataegus monagina), cornel-tree (Cornus mas), common (Hypericum perforatum), sweet chestnut (Castanea sativa), yarrow (Achillea millefolium), stinging nettle (Urtica dioica), wild thyme (Thymus sp.), dog rose (Rosa canina), etc.

5.2. Sharri Mountains

The northern parts of the Sharri Mountains belong to Kosovo and include a surface of 1100km² or around 1/10 of the overall surface of Kosovo. The line going through mountain peaks represents the delineation border that is part of the interstate border between Kosovo and Macedonia. The Sharri Mountains through the valley of Lepenc river (Siriniq) joins with the Kosovo Plane while through the valley of Lumbardh river of Prizren joins with the Dukagjini Plane.

Major part of this wealth belongs to the state sector and a smaller part to the private sector. Before the war citizens of this region were engaged with livestock farming and collection of Medicinal and Aromatic Plants. Regions of Dragash, Gora and Opoja used to be typical livestock breeding places. This region was known also for collection of MAP and WB that was done by cooperatives in an institutional and controlled manner.

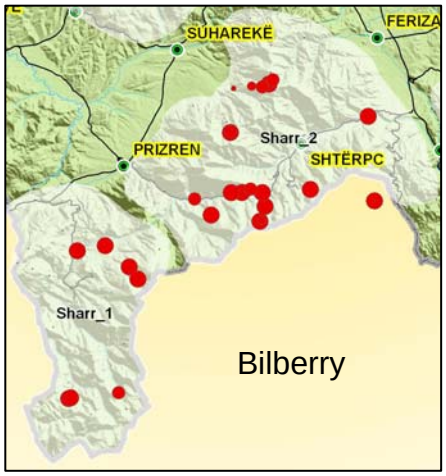


In years after the war collection was spontaneous, unorganized and uncontrolled by the respective state institutions. This has resulted with damages and reduction of the MAP stock. Certain species like Gentiana lutea and Gentiana punctata have almost disappeared.

The Sharri Mountains include areas that are declared as natural reserves or zones of special interest. In these areas grow many MAP and WB that are important for socio-economic development of these territories. Harvest of MAP and WB in these areas should be strictly controlled in order not to impoverish the biodiversity.

The proper natural reserves in Sharri Mountains are the following:

- Arnen's Peak (ex Popovo Prase) – that is composed of pure Bosnian Pine (Pinetus heldreichii) forests, that is in Prevallë
- Oshlak dominated by Pinus heldreichii,
- Pisha e Madhe that extends in the south-east hillsides of Koxhaballkan, respectively in the western part of the National Park having a surface of 44 ha, and
- Rusenica that is the habitat of the Balkans Lynx (Lynx balcanicus)



Areas of a special natural value are the following:

Pashallarë (Ostrovica) – area of high mountains (1600m-2092m)

Koplica is a lime region of high mountains, with rare flora and fauna

Region that is the source of the Lumbardh River of Prizren is Luboten (2496 m) and it has a very rich flora. Livadhi i mbretit [King's Meadow] – Jazhinca's Lake.

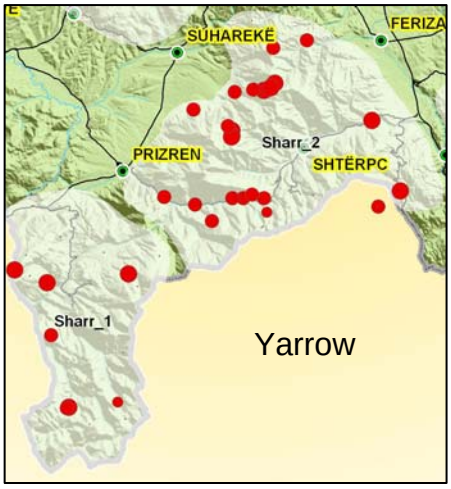
MAP and WB in the Sharri Mountains are divided based on the territory that belongs to 6 municipalities that extend in these mountains, even

though individual and big collectors of MAP and WB do not respect these administrative boundaries. Dragash is the municipality with highest potential of MAP and WB, and is better organized.

Tab.6: Quantity of MAP and wild fruits in Sharri Mountains by municipality

Scientific Name	Dragash	Suharekë	Prizren	Shtërpcë	Ferizaj	Kaçanik	Total
			Kg				
Achillea millefolium (H)	10,500	4,000	10,050	2,500	6,000	4,000	37,050
Aconitum napelus (R)	550	0	0	0	0	0	550
Allium ursinum (R, H)	3,090	5,300	550	960	1,100	37,000	48,000
Arctostaphyllos uva-ursi (Fol)	6,000	1,140	3,000	4,000	1,000	3,500	18,640
Arthemisia vulg. (H)	6,000	6,400	12,000	1,000	8,900	9,700	44,000
Atropa belladona (Fol)	240	140	240	240	360	220	1,440
Bellis perennis (Fl)	4,000	3,000	2,000	2,000	1,500	2,000	14,500
Betua pendula (Fol)	1,525,000	103,000	110,000	100,000	10,000	2,000	1,850,000
Carlina acaulis (R)	4,500	2,500	1,000	1,800	500	500	10,800
Centaurium erythrea(H)	5,500	5,500	5,000	3,000	5,000	3,000	27,000
Cichorium intibus (R)	11,400	16,000	15,000	4,500	12,500	11,000	70,400
Cornus mas (Fr)	24,960	36,000	65,000	16,000	20,000	20,440	182,400
Corylus avellana (Fr)	6,500	2,300	14,600	3,800	9,800	8,000	45,000
Crataegus monogyna (Fl-Fol)	14,750	32,000	43,000	13,000	42,000	30,250	175,000
Digitalis lanata (Fol)	2100	1,900	1,400	800	1,900	1,500	9,600
Epilobium angustifolium(Fol)	12,000	7,000	3,000	5,000	5,000	3,000	35,000
Equisetum arvense (H)	4,000	3,400	3,100	2,000	2,600	500	15,600
Fragaria vesca (Fol)	9,000	7,000	3,000	3,000	6,000	2,814	30,814
Fraxinus ornus (Fl)	7,500	9,800	20,000	1,300	14,000	23,000	75,600
Galium verum (H)	24,680	17,320	57,000	32,000	45,000	40,000	216,000
Gentiana asclepiadea (R)	5,500	4,000		3,500	1,400	1,440	15,840
Gentiana punctata (R)	6,000	5,000	3,900	3,900	3,000	4,800	26,600
Geranium macrorrhizum(R)	9,800	34,000	26,000	8,900	13,000	10,700	102,400
Geranium robertianum (H)	9,000	9,100	5,800	9,900	8,800	2,100	44,700
Hypericum alpigenum (H)	4,000	2,500	2,000	2,000	700	0	11,200
Hypericum perforatum (H)	18,400	18,000	15,500	12,600	35,000	10,900	110,400
Juniperus communis (Fr)	145,700	41,300	91,000	98,000	20,000	19,000	415,000
Juniperus nana (Fr)	36,000	20,000	9,100	13,000	16,000	2,500	96,600
Juniperus oxycedrus (F)	1,200	11,000	6,500	4,600	2,300	14,000	39,600
Leucanthemum vulgare	4,400	3,600	2,500	2,500	1,600	1,000	15,600
Malus sylvestris (F)	49,280	23,280	64,000	15,000	23,000	36,000	210,560
Malva sylvestris (Fl)	2,800	2,900	3,400	2,000	4,000	2,900	18,000
Mentha longifolia(Fol)	11,000	18,600	20,100	8,000	6,100	9,000	72,800
Orchis morio (B)	900	650	120	400	350	100	2,520
Origanum vulgare (H)	19,000	17,000	9,000	8,900	15,000	5,920	74,820
Petasites albus (R)	9,000	5,000	2,000	5,000	9,000	2,000	32,000
Petasites hybridus (R)	20,000	20,000	40,000	160,000	20,000	10,000	270,000
Primal elatior	1,600	300	150	650	150	150	3,000
Primula veris (FL)	2,600	1,300	1,900	1,100	930	1,050	8,880
Prunus spinosa (Fr)	1,100	9,900	15,000	1,300	10,200	10,000	47,500
Pteridium aquilinum (R)	80,000	225,000	214,000	80,000	100,100	70,000	769,100
Pyrus sp.	2,000	11,500	14,000	2,800	16,000	9,800	56,100

Scientific Name	Dragash	Suharekë	Prizren	Shtërpcë	Ferizaj	Kaçanik	Total
			Kg				
Robinia pseudoacacia(Fl)	14,700	28,000	21,000	16,000	33,000	34,300	147,000
Rosa sp. (Fr)	62,500	72,000	99,500	47,000	43,500	35,500	360,000
Rubus fruticosus (Fr)	10,000	11,000	13,200	8,000	14,000	11,000	67,200
Rubus idaeus (Fr)	8,000	6,000	4,000	6,000	1,500	2,500	28,000
Salix alba	6,500	25,000	32,000	52,000	19,500	20,000	155,000
Sambucus nigra (Fl)	8,500	7,500	8,500	1,800	8,000	4,000	38,300
Tanacetum vulgare	3,500	4,900	3,800	1,500	8,000	3,500	25,200
Taraxacum officinale (Fol)	17,000	12,000	15,500	13,000	16,100	13,000	86,600
Teucrium chamaedrys (H)	10,000	16,000	18,000	7,000	21,000	15,120	87,120
Teucrium monthanum	8,000	3,000	3,000	3,000	5,000	6,000	28,000
Thymus sp. (H)	21,100	32,000	16,000	13,000	10,500	12,280	104,880
Tilia cordata (Fl)	3,200	10,100	23,000	1,800	8,900	13,000	60,000
Tussilago farfara (Fol.)	8,000	6,400	8,900	5,800	7,600	4,500	41,200
Urtica dioica (R)	39,600	46,200	42,000	24,000	25,000	11,000	187,800
Vaccinium myrtillus (Fr)	245,000	82,000	130,000	32,000	28,000	2,000	519,000
Veratrum album.(R)	28,000	28,000	17,000	15,000	12,000	4,000	104,000
Verbascum thapsus (Fl)	14,700	11,800	11,100	900	6,300	2,000	46,800
Veronica officinalis (H)	11,000	11,000	1,000	5,000	7,000	4,100	39,100
Viola tricolor (Fl)	2,400	1,850	1,150	900	1,500	1,400	9,200
Viscum album	5,000	4,000	2,400	4,000	3,500	3,100	22,000
						Total Kg	**7,507,014**

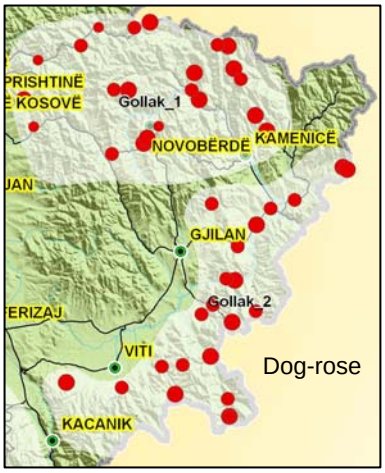


Based on the table above it is possible to conclude that this region is rich with MAP and WB. MAP and WB of economic importance and demanded by the world market are bilberry (Vaccinium myrtillus), juniper (Juniperus communis), cowslip (Primula veris), silver birch (Betulla pendula), elder (Sambucus nigra), wild apple (Mallus sylvestris), whitethorn (Crataegus monagina), cornel-tree (Cornus mas), common (Hypericum perforatum), yarrow (Achillea millefolium), stinging nettle (Urtica dioica), wild thyme (Thymus sp.), dog rose (Rosa canina), etc.

5.3. Gollak

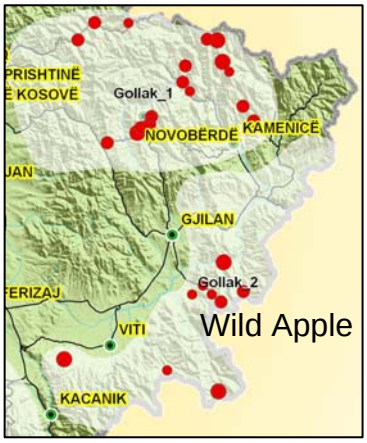
Region of Gollak includes areas rich with MAP and WB belonging to municipalities of Prishtina and Kamenica, yet in this region are included also parts of Gjilan and Viti. This region in its major part is composed of deciduous forests of oak species (Quercion fraineto). In parts having an altitude of 800 -1000 m beech forests (Fagetalia) and meadows rich with MAP and WB are present.

In addition to oak and beech this region is quite rich with vegetation of shrubs, sub-shrubs and herbaceous vegetation. As integral part of this diversity grow many MAPs and WBs.



Looking from the flora point of view, regions rich with MAP in municipalities of Viti and Gjilan are same with those of Gollak, because climate and ecologic conditions are the same.

Novobërda as a locality rich with juniper and silver birch differs from other researched regions. This region is rich with MAP and WB; species with high economical potential are whitethorn, dog rose, cornel-tree, juniper, hazelnut, wild apple, yellow locust, silver birch, white willow, ash-tree, etc. The most important herbaceous species are yarrow, common, cowslip, chicory, and wild thyme.



Geological composition

Looking from the point of view of geology the major part Gollak is composed of rock sediment complexes of different periods. Thus, the geology of the researched territory is composed of limestone, silicates and alluviums (in small surfaces), while serpentines are in fragments except for the Novobërda Mountain where serpentines have the biggest share.

Pedologic composition

Pedologic cover of Gollak including regions of Viti, Kamenica and Gjilan is quite heterogeneous. Presence of various types of soils made possible existence of a diverse flora including plenty of MAPs and WBs. Dominating type of soil are the following:

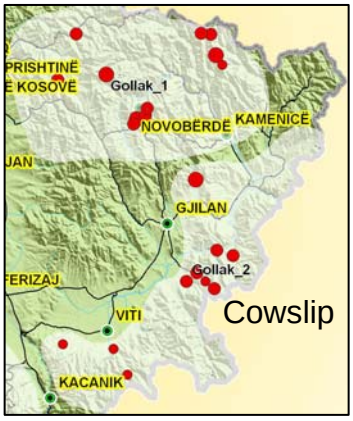
- *Alluvium soil,*
- *Typical rendzine soil on serpentine,*
- *Red-brown soil on hard limestone strata,*
- *Brown shallow soil on hard lime substrata,*

Tab.7: Quantity of MAP and wild fruit in Gollak by municipality

Scientific Name	Novobërda	Gjilan	Viti	Kamenicë	Prishtinë	Total
Pteridium aquilinum	120,000	176,000	300,000	440,000	813,000	1,849,000
Salix alba	560	260,000	50,000	145,000	150,000	605,560
Rosa sp.	68,000	98,000	88,000	240,000	96,000	590,000
Robinia pseudoacacia	32,000	84	109,000	180,000	119,700	440,784
Malus sylvestris	87,000	98,000	35,000	161,280	58,000	439,280
Crataegus monagyna	51,000	150,000	69,000	120,000	48,000	438,000
Betua pendula	360,000	65,000	250	240	500	425,990
Cornus mas	48,000	58,000	15,900	152,000	45,600	319,500
Cichorium intibus	12,000	56,000	19,200	99,200	90,000	276,400
Prunus spicosa	6,400	52,000	12,000	96,800	81,000	248,200
Petasites hybridus	0	110,000	80,000	230	2,500	192,730

Scientific Name	Novobërda	Gjilan	Viti	Kamenicë	Prishtinë	Total
Thymus sp.	37,800	65,000	25,200	44,116	18,400	190,516
Tilia cordata	12,000	88,000	54,000	9,000	21,000	184,000
Fraxinus ornus	250	67,200	57,600	980	28,800	154,830
Achillea millefolium	16,000	54,400	18,000	13,650	27,000	129,050
Juniperus communis	90,000	450	20,000	10,770	12,000	133,220
Rubus fruticosus	7,700	27,000	19,200	43,000	3,600	100,500
Tussilago farfara	10,300	16,000	14,000	24,480	35,700	100,480
Galium verum	18,000	25,900	1,300	52,000	1,800	99,000
Mentha longifolia	7,200	30,800	8,400	44,800	1,500	92,700
Sambucus nigra	5,500	15,500	18,240	34,560	8,600	82,400
Hypericum perforatum	11,000	5,600	16,000	35,200	12,600	80,400
Urtica dioica	25,000	1,090	21,600	25,200	6,400	79,290
Origanum vulgare	6,000	11.2	24,500	18,000	9,000	57,511
Teucrium chamaedrys	21,600	17,160	980	1,700	15,000	56,440
Petasites albus	0	16,000	32,000	150	230	48,380
Ononis spicosa	4,800	17,000	4,800	17,600	3,600	47,800
Coryllus avellana	2,000	12,000	7,000	11,000	15,000	47,000
Centhaurium erythrea	2,400	4,400	15,200	12,160	9,600	43,760
Hedera helix	1,500	22,000	13,200	790	5,400	42,890
Taraxacum officinale	550	3,700	5,600	5,800	21,600	37,250
Genista tinctoria	11,200	8,800	11,000	1,200	1,800	34,000
Prunella vulgaris	130	17,200	12,000	790	2,916	33,036
Pyrus sp.	3,200	17,000	1,090	6,800	560	28,650
Tanacetum vulgare	1,140	9,720	1,800	6,840	2,160	21,660
Verbascum thapsus	1,300	5,920	5,720	2,700	3,168	18,808
Bellis perennis	750	4,440	6,660	1,080	5,500	18,430
Plantago lanceolata	660	2,200	1,300	1,400	9,500	15,060
Fragaria vesca	1,260	2,400	3,780	1,800	2,520	11,760
Digitalis lanata	1,400	8.4	6,600	780	2,250	11,038
Convollaria majalis	1,590	19.6	5,600	550	2,800	10,560
Cetraria islandica	270	6,000	2,400	760	480	9,910
Linaria vulgaris	570	3,600	990	2,400	1,300	8,860
Primula acaulis	1,840	1,800	1,960	1,800	576	7,976
Carlina acaulis	0	2,500	2,400	340	2,200	7,440
Anemone nemorosa	990	1,980	980	900	2,500	7,350
Primula veris	1,700	1,400	1,080	1,290	260	5,730
Epilobium parviflorum	100	2,800	1,400	130	150	4,580
Polygonatum odoratum	160	2,240	180	720	800	4,100
Sanguisorba minor	770	570	560	870	1,050	3,820
Anthylis vulneraria	1,800	330	450	790	330	3,700
Scabiosa columbaria	870	570	450	570	150	2,610
Veronica officinalis	2,000	259	140	70	70	2,539
Allium ursinum	0	0	0	2,400	50	2,450
Viola tricolor	230	180	1,200	160	360	2,130
Viola odorata	160	160	150	560	1,000	2,030
Atropa belladona	170	360	540	570	150	1,790

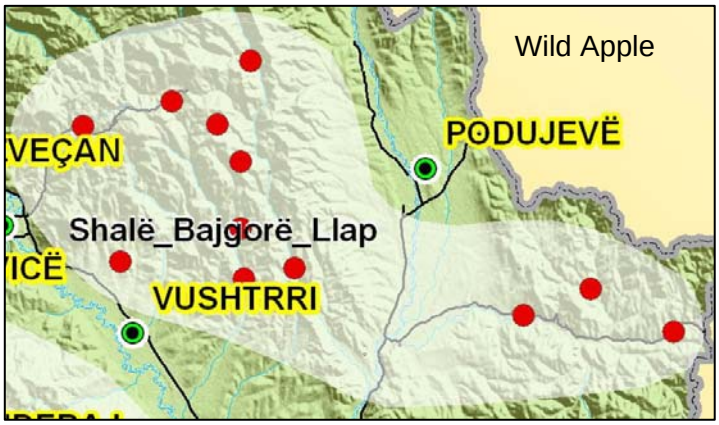
Scientific Name	Novobërda	Gjilan	Viti	Kamenicë	Prishtinë	Total
Gentiana asclepiadea	0	0	130	660	450	1,240
Rubus idaeus	270	0	240	170	150	830
Colchicum automnale	120	140	150	198	180	788
					Total Kg	7,915,736



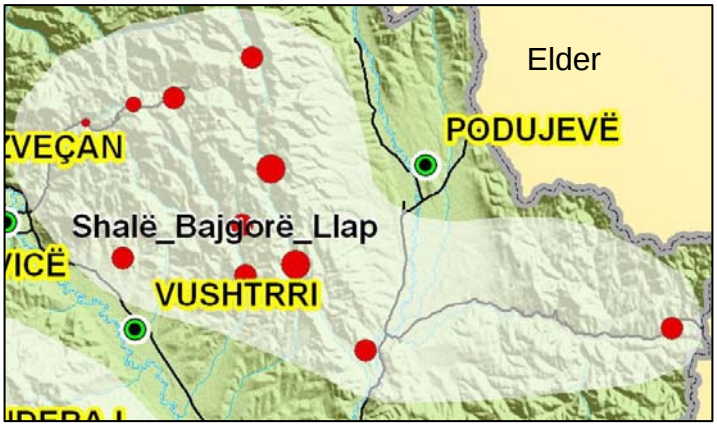
Based on table 7 it is possible to conclude that this region is rich with MAP and WB. MAPs and WBs having an economical importance and demanded by the world market are yarrow (Achillea millefolium), wild apple (Mallus sylvestris), whitethorn (Crataegus monagina), cornel-tree (Cornus mas), wild marjoran (Origanum vulgare), common (Hypericum perforatum), wild thyme (Thymus sp.), dog rose (Rosa canina), yellow locust (Robinia pseudocacia), juniper (Juniperus communis), silver birch (Betula pendula) etc.

5.4. North Kosovo

Mitrovica Region



North Kosovo includes regions of Mitrovica, Podujeva and Vushtrri municipalities. In these study are not included areas of Zubin Potok and Leposaviq municipalities, therefore many MAPs and WBs grown in mountains of Koritnik as the mountain with highest potential aren't recorded. In the territory of Mitrovica the richest region with MAP and WB is the region of Shala and parts of Koritnik. This area is mainly dominated by oak and beech forests and pasturages that are pretty rich with MAP and WB. Valuable MAPs having an economical potential are cowslip, whitethorn, wild apple, dog rose, cornel-tree, oregano. Kopaonik is rich with Great Yellow Gentian (Gentiana lutea) that is being eradicated because of indiscriminate harvest.



Geological composition

Looking from the point of view of geology the major part of Mitrovica territory is composed of rock sediment complexes of

different periods. Mainly dominate limestone, serpentine rocks, silicates, and alluviums (in small surfaces around the river canyons). The serpentine rocks dominate mainly in the Koritnik Mountain and in the valley of the Ibër River, while other areas are dominated by limestone and silicates.

Pedologic Composition

Pedologic cover of this region is quite heterogeneous. Presence of various types of soils made possible existence of a diverse flora including plenty of MAPs and WBs. Dominating type of soil are the following:

- *Alluvium soil (river canyons),*
- *Typical rendzine soil on serpentine (Koritnik Mountain, some parts of Shala),*
- *Red-brown soil on hard limestone strata (Region of Shala and wider),*
- *Brown shallow soil on hard lime substrata (in fragments)*

Podujeva Region

This region includes parts of the northern Kosovo between Shala and Gollak.
This area is mainly dominated by forests of oak and beech, and pasturages that are quite rich with MAP and WB. Valuable MAPs having an economical potential are cowslip, whitethorn, wild apple, dog rose, white willow, ash-tree, cornel-tree, common, etc.
From the point of view of **geology** this region is similar to those of Golak and Shala, dominated by limestone and silicates.
Looking from the point of view of **pedology** this region is quite heterogeneous, dominated by various types of soil, that in general are common with those mentioned for the Gollak Region and the Central Kosovo.

Tab. 8: Quantities of MAP and wild fruits in the northern Kosovo by municipality

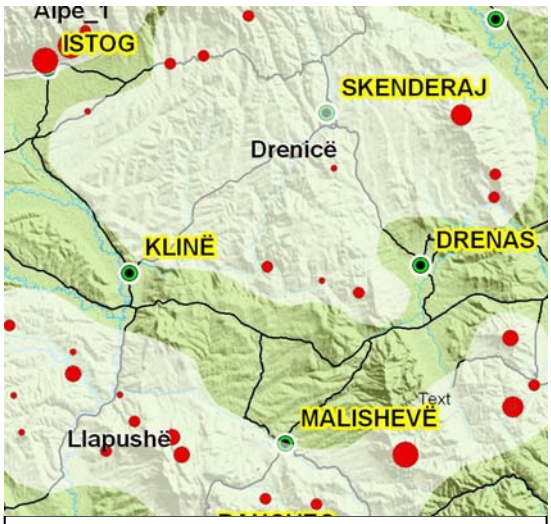
	Mitrovicë	**Podujevë**	Total
		Kg	
Achillea millefolium (H)	422	19,200	19,622
Arthemisia vulg. (H)	180		180
Atropa belladona (Fol)	270		270
Bellis perennis (Fl)	407	3,300	3,707
Centaurium erythrea(H)	650	9,000	9,650
Cichorium intibus (R)	480	63,200	63,680
Convollaria majalis (H)	560	24,500	25,060
Cornus mas (Fr)	1,140	95,000	96,140
Corylus avellana (Fr)	150	12,000	12,150
Crataegus monogyna (Fl-Fol)	3,750	120,000	123,750
Digitalis lanata (Fol)	180	9,900	10,080
Epilobium angustifolium(Fol)	9	900	909
Equisetum arvense (H)	115	7,000	7,115
Fragaria vesca (Fol)	315	14,280	14,595
Fraxinus ornus (Fl)	840	140,000	140,840
Galium verum (H)	4,400	55,000	59,400
Gentiana asclepiadea (R)	160		160
Geranium robertianum (H)	400	7,500	7,900
Hypericum perforatum (H)	320	32,000	32,320

Juniperus communis (Fr)	15,125	24,000	39,125
Juniperus oxycedrus (F)	630		630
Leucanthemum vulgare	52	4,500	4,552
Malus sylvestris (F)	2,688	110,000	112,688
Malva sylvestris (Fl)	56	4,800	4,856
Mentha longifolia(Fol)	1,400	11,500	12,900
Ononis spinosa	400	21,000	21,400
Orchis morio (B)	39	252	291
Origanum vulgare (H)	903	52,500	53,403
Petasites hybridus (R)	2,100	120,000	122,100
Primula acaulis (Fl)	96	2,200	2,296
Primula veris (FL)	3,138	2,320	5,458
Prunus spinosa (Fr)	880	120,000	120,880
Prunus cerasus	33		33
Pteridium aquilinum (R)	400	120,000	120,400
Pyrus sp.	680	28,000	28,680
Robinia pseudoacacia(Fl)	1,260	18,200	19,460
Rosa sp. (Fr)	1,600	101,000	102,600
Rubus fruticosus (Fr)	120	9,400	9,520
Rubus idaeus (Fr)	120	1,600	1,720
Salix alba	1,250	137,000	138,250
Sambucus nigra (Fl)	9,384	12,000	21.384
Tanacetum vulgare	216	1,620	1,836
Taraxacum officinale (Fol)	770	11,000	11,770
Teucrium chamaedrys (H)	198	72,600	72,798
Thymus sp. (H)	1,288	68,000	69,288
Tilia cordata (Fl)	9,360	16,000	25,360
Tussilago farfara (Fol.)	520	20,000	20,520
Urtica dioica (R)	360	72,000	72,360
Verbascum thapsus (Fl)	247	3,600	3,847
Viola odorata (Fl)	54	730	784
Viola tricolor (Fl)	40	400	440
		Total Kg	**1,849,157**

5.5. Central Kosovo

The central Kosovo includes mountains that divide Kosovo and Dukagjin plane and belong to municipalities of Vushtri, Skenderaj, Drenas, Klinë, Malishevë and Rahovec.

The Drenica Mountain (1051m) belongs to the central mountains of Kosovo and includes the space from the Llapushnik Canyon up to Carralevë. As part of the central mountains of Kosovo are also the following mountains: Kasmaç (976 m), Gradina e Vogël and Gradina e Madhe (940 m), Bulen (740 m) and Mali i Lisit të Gjatë (856 m). These terrains extend in the



Whitethorn

central part of Kosovo between Çyçavica, Kosovo Plane (Golesh), Llapusha, Carraleva Mountains and Anadrini.

Territory of Drenica Mountain (Llapushnik-Carralevë), Çyçavicë and other mountains of Central Kosovo, include terrains in various natural substrata and habitats where the major part is covered by forests, partially by pasturages, and less by meadows.

Looking from the geomorphologic point of view it is quite interesting. The altitude extends from 650 m up to 1051 m. The geologic composition is of different ages, while petrology is quite heterogeneous. Canyons, from the geomorphologic point of view, are important and numerous, and also rich with MAP and WB.

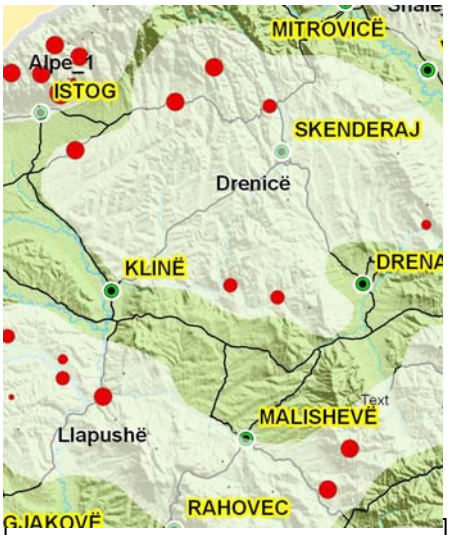
Geologic Composition

Looking from the point of view of geology the biggest part of the territory of Drenica Mountain, Çyçavica and other mountains belonging to this part of Kosovo comprise of rock sediment complexes of Mesozoic and Cenozoic periods. Consequently, geology of this territory is composed of limestone, serpentines, silicates and alluviums (in small surfaces).

Pedologic Composition

Pedologic cover of this territory is quit heterogeneous. Pedology of these terrains is composed of the following types of soil

- *Alluvium soil*
- *Typical rendzine soil on serpentine,*
- *Red-brown soil on hard limestone strata,*
- *Brown shallow soil on hard lime substrata,*



Dog Rose

In the major part of the Drenica Mountain's territory, soils are not favorable for cultivation of crops except in some small alluvium surfaces and some small hilly parts; therefore these surfaces may be successfully utilized for cultivation of MAP and WB.
Mountains of the Central Kosovo are dominated by the oak forests, while in areas with an altitude of over 800 m are dominated by the beech forests. Pasturages are of a hilly mountainous type, rich with shrubs, and posses a potential for MAP and WB. Dominant MAPs and WBs are wild apple (Mallus sylvestris), whitethorn (Crataegus monagina), cornel-tree (Cornus mas), wild marjoran (Origanum vulgare), common (Hypericum perforatum), yarrow (Achillea millefolium), wild thyme (Thymus sp.), dog rose (Rosa canina), etc.

Region of Skenderaj, north part of Klina and north-west part of Malisheva

Region of Skenderaj is a hilly region dominated by the oak forests; however, many parts are wastelands and pasturages rich with MAP and WB. This enabled development of MAPs of shrub, tree and herbal types. MAP and WB having a potential are lime,

whitethorn, sloe, dog rose, white willow, yellow locust, juniper, elder, ash, etc. Important herbaceous plants are horse weed, yarrow, wild strawberry, stinging nettle, wild thyme, mint, etc. MAPs and WB of this region are presented in the table 9.

Region of Dushkaja

Region of Dushkaja includes territories of Klina, Deçan and Peja municipalities. The oak forests dominate while pasturages are rare, therefore ligneous plants and shrubs cover the biggest part and posses an economical potential.
The geologic and pedologic composition is same as in other parts of the Central Kosovo. MAPs and WBs having a potential are white willow, yellow locust, cornel-tree, whitethorn, elder, dog rose, wild apple, etc.

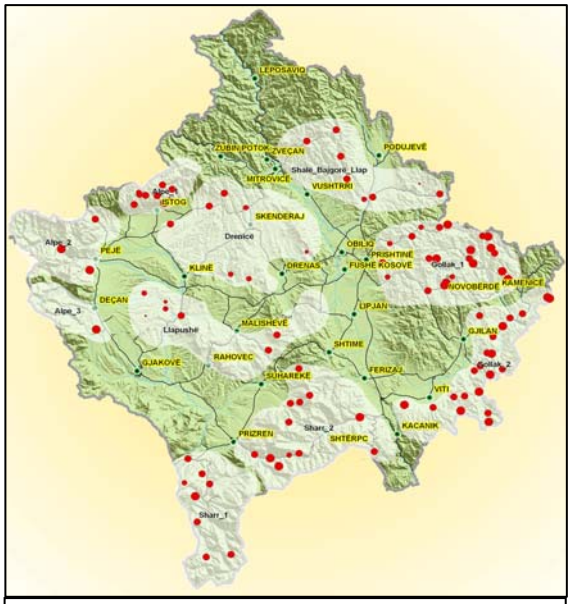
Tab. 9: Quantity of MAPs and wild fruits in the central Kosovo by regions

	Drenica Mountains	Çyçavica and other mountains of the central Kosovo	Region of Skenderaj, Klina and Malisheva	Region of Dushkaja	Total
Scientific Name			**Kg**		
Achillea millefolium (H)	16,300	24,000	1,800	2,925	45,025
Arthemisia vulg. (H)	20,000	12,800	6,300	7,100	46,200
Atropa belladona (Fol)		648	135	180	963
Bellis perennis (Fl)	4,400	6,720	1,080	660	12,860
Centaurium erythrea(H)	18,000	12,300	2,800	450	33,550
Cichorium intibus (R)	25,000	81,200	4,320	25,200	135,720
Convollaria majalis (H)		9,800	5,600	400	15,800
Cornus mas (Fr)	83,000	136,000	4,560	32,000	255,560
Corylus avellana (Fr)	14,000	11,400	3,000	1,700	30,100
Crataegus monogyna (Fl-Fol)	80,000	182,000	24,000	8,200	294,200
Digitalis lanata (Fol)	2,400	3,060	350	300	6,110
Epilobium angustifolium(Fol)		2,400	2,000		4,400
Epilobium parviflorum					
Equisetum arvense (H)	7,440	6,300	1,890	900	16,530
Fragaria vesca (Fol)	5,642	7,900	12,300	3,200	29,042
Fraxinus ornus (Fl)	19,200	520,000	19,100	2,160	560,460
Galium verum (H)	20,800	47,600	2,760	12,300	83,460
Gentiana asclepiadea (R)		3,400			3,400
Geranium robertianum (H)		800			800
Hypericum perforatum (H)	18,720	14,400	1,044	3,000	37,164
Juniperus communis (Fr)	15,000	42,000	10,800	1,080	68,880
Juniperus oxycedrus (F)	13,200	11,000			24,200
Leucanthemum vulgare	3,120	3,200	955	480	7,755
Malus sylvestris (F)	47,000	82,800	1,800	8,100	139,700
Malva sylvestris (Fl)	4,560	6,750	3,690	1,500	16,500
Mentha longifolia(Fol)	10,500	46,000	4,900	250	61,650
Ononis spicosa		64,000	9,100	1,600	74,700
Orchis morio (B)	70	196	343	49	658
Origanum vulgare (H)	27,900	30,000	2,550	2,940	63,390
Petasites hybridus (R)		36,000	5,400	1,200	42,600
Primal elatior	480				480

	Drenica Mountains	Çyçavica and other mountains of the central Kosovo	Region of Skenderaj, Klina and Malisheva	Region of Dushkaja	Total
Scientific Name			**Kg**		
Primula acaulis (Fl)		1,800	389	320	2,509
Primula veris (FL)	480	360	180		1,020
Prunus spinosa (Fr)	40,000	200,000	22,400	7,200	269,600
Prunus cerasus		4,000	1,100	2,000	7,100
Pteridium aquilinum (R)	80,000	98,000	110,000	1,900	289,900
Pyrus sp.	10,200	19,600	2,378	2,400	34,578
Robinia pseudoacacia(Fl)	5,200	164,000	10,800	39,000	219,000
Rosa sp. (Fr)	96,000	216,000	19,600	18,600	350,200
Rubus fruticosus (Fr)	9,600	16,400	7,800	10,800	44,600
Rubus idaeus (Fr)		600	890	400	1,890
Salix alba	4,000	384,000	12,300	49,500	449,800
Sambucus nigra (Fl)	3,840	1,800	6,400	8,200	20,240
Tanacetum vulgare	25,200	8,100	1,602	1,080	35,982
Taraxacum officinale (Fol)	9,800	14,700	4,800	7,200	36,500
Teucrium chamaedrys (H)	29,040	56,300	5,400	4,200	94,940
Teucrium monthanum	500				500
Thymus sp. (H)	16,500	28,800	8,100	3,600	57,000
Tilia cordata (Fl)	22,400	17,500	28,000	1,200	69,100
Tussilago farfara (Fol.)	14,280	14,400	11,400	7,200	47,280
Urtica dioica (R)	13,080	13,000	7,200	3,200	36,480
Verbascum thapsus (Fl)	3,150	1,872	750	1,805	7,577
Veronica officinalis (H)	7,760				7,760
Viola odorata (Fl)		780	180	60	1,020
Viola tricolor (Fl)		400	240		640
				Total Kg	**4,197,073**

6. Results for the whole territory of Kosovo

The richest regions of Kosovo with MAP and WB are the Sharri Mountains and the Albanian Alps of Kosovo. In these terrains, especially in the subalpine zone, dominate bilberry, juniper and cowslip being the most important and valuable in the international markets. Region of Shala is known also for the presence of cowslip that has a god potential, while Llap, Gollak (including Gjilan and Viti) and the central Kosovo have almost the same MAPs because of the same altitude and geologic-pedologic composition. In general, having in mind that Kosovo has only around 11,000 km2, it appears to be



Places where Dog Rose is present

quite rich both from the point of view of diversity and also quantity and quality of MAP and WB.

Tab.10: Quantity of MAPs and wild fruits in the whole territory of Kosovo by region

Scientific Name	Albanian Alps	Sharri	Gollak	Mitrovicë-Podujevë	Central Kosovo	Total
	Kg					
Achillea millefolium (H)	121,200	37,050	129,050	19,622	45,025	351,947
Aconitum napelus (R)	69,300	550	0	0	0	69,850
Allium ursinum (R, H)	0	48,000	2,450	0	0	50,450
Anemone nemorosa (H)	86,140	0	7,350	0	0	93,490
Antennaria dioica (H)	4,200	0	0	0	0	4,200
Anthylis vulneraria	0	0	3,700	0	0	3,700
Arctostaphyllos uva-ursi (Fol)	23,300	18,640	0	0	0	41,940
Arthemisia vulg. (H)	0	44,000	0	180	46,200	90,380
Asperula odorata (H)	13,800	0	0	0	0	13,800
Atropa belladona (Fol)	2,979	1,440	1,790	270	963	7,442
Bellis perennis (Fl)	37,680	14,500	18,430	3,707	12,860	87,177
Betua pendula (Fol)	100,000	1,850,000	425,990	0	0	2,375,990
Carlina acaulis (R)	48,000	10,800	7,440	0	0	66,240
Centaurium erythrea(H)	57,000	27,000	43,760	9,650	33,550	170,960
Cetraria islandica (H)	47,700	0	9,910	0	0	57,610
Cichorium intibus (R)	22,400	70,400	276,400	63,680	135,720	568,600
Colchicum automnale	0	0	788	0	0	788
Convollaria majalis (H)	98,400	0	10,560	25,060	15,800	149,820
Cornus mas (Fr)	288,400	182,400	319,500	96,140	255,560	1,142,000
Corylus avellana (Fr)	43,000	45,000	47,000	12,150	30,100	177,250
Crataegus monogyna (Fl-Fol)	205,000	175,000	438,000	123,750	294,200	1,235,950
Crocus sp.(ST)	288	0	0	0	0	288
Digitalis lanata (Fol)	38,900	9,600	11,038	10,080	6,110	75,728
Epilobium angustifolium(Fol)	39,200	35,000	0	909	4,400	79,509
Epilobium parviflorum (Fol)	0	0	4,580	0	0	4,580
Equisetum arvense (H)	0	15,600	0	7,115	16,530	39,245
Fragaria vesca (Fol)	44,688	30,814	11,760	14,595	29,042	130,899
Frangula alnus (C)	2,850	0	0	0	0	2,850
Fraxinus ornus (Fl)	134,400	75,600	154,830	140,840	560,460	1,066,130
Galium verum (H)	97,220	216,000	99,000	59,400	83,460	555,080
Genista tinctoria (H)	0	0	34,000	0	0	34,000
Gentiana asclepiadea (R)	11,674	15,840	1,240	160	3,400	32,314
Gentiana punctata (R)	50,400	26,600	0	0	0	77,000
Geranium macrorrhizum(R)	403,200	102,400	0	0	0	505,600
Geranium robertianum (H)	0	44,700	0	7,900	800	53,400
Hedera helix (Fol)	86,400	0	42,890	0	0	129,290
Hypericum alpigenum (H)	72,300	11,200	0	0	0	83,500
Hypericum perforatum (H)	315,320	110,400	80,400	32,320	37,164	575,604
Juniperus communis (Fr)	275,000	415,000	133,220	39,125	68,880	931,225
Juniperus nana (Fr)	110,000	96,600	0	0	0	206,600
Juniperus oxycedrus (F)	14,400	39,600	0	630	24,200	78,830

Scientific Name	Albanian Alps	Sharri	Gollak	Mitrovicë-Podujevë	Central Kosovo	Total
Leucanthemum vulgare (F)	0	15,600	0	4,552	7,755	27,907
Linaria vulgaris (H)	0	0	8,860	0	0	8,860
Malus sylvestris (F)	140,000	210,560	439,280	112,688	139,700	1,042,228
Malva sylvestris (Fl)	0	18,000	0	4,856	16,500	39,356
Mentha longifolia(Fol)	67,000	72,800	92,700	12,900	61,650	307,050
Ononis spinosa (R)	0	0	47,800	21,400	74,700	143,900
Orchis morio (B)	5,740	2,520	0	291	658	9,209
Origanum vulgare (H)	90,020	74,820	57,511	53,403	63,390	339,144
Petasites albus (R)	200,000	32,000	48,380	0	0	280,380
Petasites hybridus (R)	630,000	270,000	192,730	122,100	42,600	1,257,430
Plantago lanceolata (Fol)	0	0	15,060	0	0	15,060
Polygonatum odoratum (H)	0	0	4,100	0	0	4,100
Primal elatior (Fl)	0	3,000	0	0	480	3,480
Primula acaulis (Fl)	17,700	0	7,976	2,296	2,509	30,481
Primula veris (FL)	20,400	8,880	5,730	5,458	1,020	41,488
Prunella vulgaris (H)	0	0	33,036	0	0	33,036
Prunus spinosa (Fr)	77,000	47,500	248,200	120,880	269,600	763,180
Prunus cerasus (Fr)	0	0	0	33	7,100	7,133
Pteridium aquilinum (R)	1,078,000	769,100	1,849,000	120,400	289,900	4,106,400
Pyrus sp. (Fr)	40,000	56,100	28,650	28,680	34,578	188,008
Robinia pseudoacacia(Fl)	123,800	147,000	440,784	19,460	219,000	950,044
Rosa sp. (Fr)	472,000	360,000	590,000	102,600	350,200	1,874,800
Rubus fruticosus (Fr)	45,600	67,200	100,500	9,520	44,600	267,420
Rubus idaeus (Fr)	34,800	28,000	830	1,720	1,890	67,240
Salix alba (Cor)	70,000	155,000	605,560	138,250	449,800	1,418,610
Sambucus nigra (Fl)	23,040	38,300	82,400	21,384	20,240	185,364
Sanguisorba minor (H)	0	0	3,820	0	0	3,820
Scabiosa columbaria (H)	0	0	2,610	0	0	2,610
Tanacetum vulgare	21,600	25,200	21,660	1,836	35,982	106,278
Taraxacum officinale (Fol)	91,760	86,600	37,250	11,770	36,500	263,880
Teucrium chamaedrys (H)	67,280	87,120	56,440	72,798	94,940	378,578
Teucrium monthanum (H)	0	28,000	0	0	500	28,500
Thymus sp. (H)	237,292	104,880	190,516	69,288	57,000	658,976
Tilia cordata (Fl)	75,000	60,000	184,000	25,360	69,100	413,460
Tussilago farfara (Fol.)	120,700	41,200	100,480	20,520	47,280	330,180
Urtica dioica (R)	208,800	187,800	79,290	72,360	36,480	584,730
Vaccinium myrtillus (Fr)	303,000	519,000	0	0	0	822,000
Veratrum album.(R)	132,800	104,000	0	0	0	236,800
Verbascum thapsus (Fl)	16,650	46,800	18,808	3,847	7,577	93,682
Veronica officinalis (H)	34,500	39,100	2,539	0	7,760	83,899
Viola odorata (Fl)	1,010	0	2,030	784	1,020	4,844
Viola tricolor (Fl)	3,136	9,200	2,130	440	640	15,546
Viscum album	0	22,000	0	0	0	22,000
Total	**7,413,367**	**7,507,014**	**7,915,736**	**1,840,157**	**4,197,073**	**28,882,347**

7. Other MAPs and WBs in Kosovo

Part of MAP and WB present in Kosovo's flora are also many other species that are included in the table 11.

In the list are included also Pinus mogo (Mountain Pine) and Castanea sativa (chestnut) that even though were presented in the above tables are species having a high potential. The first, is mainly spread in the Albanian Alps and in the Sharri Mountains in subalpine and alpine zone while the second, chestnut has quite a wide presence starting from Morina and continuing up to the Rugova Canyon.

Other species even though do not have a high potential are present in Kosovo and may be collected by the companies engaged in this business. Many of these species are ingredients for many drugs/medicines sold in pharmacies in Kosovo but produced in different Balkans' countries, or even elsewhere in Europe and world. Out of these species most frequently offered in various pharmacies are *Plantago lanceolata, Adonis vernalis, Agropyrum repens, Althaea officinalis, Angelica archangelica, Chamomilla recutita, Datura stramonium, Fumaria officinalis, Galega officinalis, Gentiana lutea, Humulus lupulus, Lithospermum officinale, Pulmonaria officinalis, Saponaria officinalis, Nasturtium officinale, Stachys officinalis, Stellaria media, Symphytum officinale, Valeriana officinalis,Verbena officinalis, etc.*

Tab.11. Other MAPs and WBs in Kosovo

	Scientific Name	**English Name**
1	*Acanthus balcanicus*	*Bear's Breeches*
2	*Aconitum burnatii subsp. pentheri*	*Aconite*
3	*Aconitum lamarckii*	*Yellow Monkshood*
4	*Adonis vernalis*	*Spring Pheasant's Eye*
5	*Agrimonia eupatoria*	*Common Agrimony*
6	*Agropyron repens [Elymus repens]*	*Couch Grass*
7	*Ajuga reptans*	*Common Bugle*
8	*Alnus incana*	*Gray Alder*
9	*Althaea officinalis*	*Marshmallow*
10	*Anagallis arvensis*	*Scarlet pimpernel*
11	*Angelica archangelica*	*Angelica*
12	*Angelica sylvestris [A. illyrica]*	*Woodland Angelica*
13	*Antennaria dioica*	*Catsfoot*
14	*Anthylis vulneraria*	*Common kidneyvetch*
15	*Apium graveolens*	*Celery*
16	*Aquilegia vulgaris*	*Common Columbine*
17	*Arctium lappa*	*Greater Burdock*
18	*Aristolochia clematitis*	*Birthwort*
19	*Artemisia absinthium*	*Common Wormwood*
20	*Asarum europaeum*	*European Wild Ginger*
21	*Asparagus tenuifolius*	*Narrow-Leaved Asparagus*
22	*Berberis vulgaris*	*Common Barberry*
23	*Borago officinalis*	*Common Borage*
24	*Buxus sempervirens*	*Common Box*
25	*Capsela bursa-pastoris*	*Shepherd's-purse*
26	*Centaurea cyanus*	*Cornflower*
27	*Ceterach officinarum*	*Rustyback*

28	*Chamomilla recutita [M. recutita, M. chamomilla]*	*German Chamomile*
29	*Chelidonium majus*	*Greater Celandine*
30	*Consolida regalis*	*Forking Larkspur*
31	*Corylus colurna*	*Turkish Hazel*
32	*Crategus pentagyna*	*Small-flowered Black Hawthorn*
33	*Datura stramonium*	*Thorn Apple*
34	*Dictamnus albus*	*Burning-bush*
35	*Digitalis ferruginea*	*Rusty Foxglove*
36	*Digitalis laevigata*	*Grecian Foxglove*
37	*Eupatorium cannabinum*	*Hemp-agrimony*
38	*Euphorbia myrsinites*	*Myrtle Spurge*
39	*Filipendula ulmaria*	*Meadowsweet*
40	*Frangula alnus Mill.*	*Glossy Buckthorn*
41	*Fumaria officinalis*	*Drug Fumitory*
42	*Galega officinalis*	*Goat's Rue*
43	*Galium odoratum*	*Sweet Woodruff*
44	*Genista tinctoria*	*Dyer's Greenweed*
45	*Gentiana lutea*	*Great Yellow Gentian*
46	*Geranium sanguineum*	*Bloody Cranesbill*
47	*Gratiola officinalis*	*Hedgehyssop*
48	*Hepatica nobilis*	*Hepatica*
49	*Herniaria glabra*	*Smooth Rupturewort*
50	*Humulus lupulus*	*Common Hop*
51	*Hyosciamus niger*	*Black Henbane*
52	*Hyssopus officinalis*	*Herb Hyssop*
53	*Iris florentina*	*Florentine Orris*
54	*Juglans regia*	*Common Walnut*
55	*Lilium candidum*	*Madonna Lily*
56	*Lithospermum officinale*	*Common Gromwell*
57	*Loranthus europaeus*	*Loranthus*
58	*Lotus corniculatus*	*Bird's-foot Trefoil*
59	*Lysimachia nummularia*	*Creeping Jenny*
60	*Melilotus officinalis*	*Yellow Sweetclover*
61	*Melissa officinalis*	*Lemon Balm*
62	*Mentha piperita*	*Peppermint*
63	*Mentha pulegium*	*Pennyroyal*
64	*Nasturtium officinale*	*Watercresses*
65	*Nigella damascena*	*Love-in-a-mist*
66	*Paeonia corallina [P. mascula]*	*Balkan Peony*
67	*Paeonia decora [P. peregrina]*	*Peregrina Peony*
68	*Paeonia officinalis*	*Common Peony*
69	*Papaver rhoas*	*Poppy*
70	*Phaseolus vulgaris*	*Common Bean*
71	*Pinus mugo[P. montana, P. mughus]*	*Mountain Pine*
72	*Plantago lanceolata*	*Narrowleaf Plantain*
73	*Plantago major*	*Common Plantain*
74	*Plantago media*	*Hoary Plantain*
75	*Polygonatum odoratum*	*Angular Solomon's-seal*

76	*Polygonum aviculare*	*Prostrate Knotweed*
77	*Prunus cerasus*	*Sour Cherry*
78	*Pulmonaria officinalis*	*Common Lungwort*
79	*Quercus robur*	*English Oak*
80	*Ribes alpinum*	*Alpine Currant*
81	*Rumex acetosella*	*Common Sheep Sorrel*
82	*Ruscus aculeatus*	*Butcher's Broom*
83	*Ruta graveolens*	*Common Rue*
84	*Salvia officinalis*	*Kitchen Sage*
85	*Sambucus racemosa*	*Red Elderberry*
86	*Sanguisorba officinalis*	*Great Burnet*
87	*Sanicula europaea*	*Sanicle*
88	*Saponaria officinalis*	*Bouncingbet*
89	*Satureja montana*	*Winter Savory*
90	*Sempervivum tectorum*	*Common Houseleek*
91	*Sorbus aucuparia*	*European Rowan*
92	*Sorbus domestica*	*Service Tree*
93	*Stachys officinalis [Betonica officinalis]*	*Purple Betony*
94	*Stellaria media*	*Common Chickweed*
95	*Symphytum officinale*	*Common Comfrey*
96	*Taxus baccata*	*European Yew*
97	*Teucrium polium*	*Felty Germander*
98	*Trifolium pratensae*	*Red Clover*
99	*Trifolium repens*	*White Clover*
100	*Ulmus glabra [U. montana]*	*Wych Elm*
101	*Vaccinium uliginosum*	*Bog Bilberry*
102	*Valeriana officinalis*	*Garden Valerian*
103	*Verbena officinalis*	*Common Vervain*
104	*Vitis sylvestris*	*Wild Grape*

8. Conclusions

Based on research done during years 2007-2009 it may be concluded the following:
Kosovo is rich with MAP, WB and mushrooms.
The richest regions are Sharri Mountains, Albanian Alps of Kosovo, regions of Kamenica, Goollak and the northern part of Kosovo (Mitrovica region).

The most demanded species for export are the following:

Cowslip (Primula veris), bilberry (Vaccinium myrtillus), juniper (Juniperus communis), elder (Sambucus nigra), lime (Tilia cordata), yarrow (Achillea millefolium), wild apple (Malus sylvestris), wild marjoram (Origanum vulgare), common (Hypericum perforatum), dewberry (Rubus fructicosus), raspberry (Rubus idaeus).

The most profitable MAPs for Albanian exporting companies are the following:

Cowslip (Primula veris), bilberry (Vaccinium myrtilus), juniper (Juniperus communis), wild apple (Malus sylvestris), and various varieties of mushrooms.

High potential for:

- Bilberry represent the Sharri Mountains and the Albanian Alps,
- Cowslip represent the Istog Hills, the Albanian Alps and the Region of Mitrovica's Shala,
- Juniper represents the Sharri Mountains, Novobërda, etc.

- Elder represents regions of Istog and Dukagjin in general,
- Wild apple represents region of Kamenica, Alps, Sharr, Gollak,
- Dog rose region of Kamencia and whole Kosovo in general
- Silver Birch represents the Sharri Mountains (Dragash Region), and Novobërda

Endangered MAPs are the following:

- Great yellow gentian (Gentiana lutea) that in some regions already has disappeared completely; small fragments rich with this species have remained in hills of Kaliçan close to Istog, and in the Region of Mitrovica's Shala;
- Dotted-Flowered Gentian that is being rapidly collected in absence of the great yellow gentian;
- Cowslip (Primula veris) that is highly demanded by the German market;
- Lime that is being collected in an uncontrolled manner and often being felled for easer collection;
- Junipers (Juniperus communis, Juniperus oxycedrus and Juniperus nana) that are being set on fire by shepherds aiming to create new pasturages;
- Common (Hypericum perforatum) and wild marjoram (Origanum vulgare) as result of overgrazing.

Other conclusions;

- The Sharri Mountains and the Albanian Alps (Kosovo) as regions with higher potential are unpolluted and ecological;
- Percentage of urban population dealing with collection of MAPs and WBs is unsatisfactory;
- Very limited knowledge of urban population on MAP and WB and on possible profit from their collection and selling, except for bilberry, dog rose and juniper;
- Collection price, according to collectors, may change within a day, and this is discouraging collectors because they are uncertain about the sale opportunity;
- Only for some MAPs from the list there is an offer;
- There is lack of information on drying that may be done in shade or in sun for certain species;
- There are individuals having quite good drying ovens;
- The best organized regions are Istog, Dragash, Shala, Llap and Gollak;
- Harvest of bilberry begins early and not on the 1st of August;
- Concerns raised by small collectors on transport of MAPs and WBs in absence of dryers up to the collection centers;
- Export of MAP and WB by the exporting companies represents a problem;
- There is lack of information on prices in the regional and European markets;
- Lack of communication and exchange of information between collectors;
- Sufficient quantities are not achieved for some items in order to export them out of country;
- Certification of collection and exporting companies will have a positive impact on improvement of quality and prices, and in preservation of MAP and WB resources;
- There is lack of support from institutions and banks for collection companies;
- There is no institutional control on utilization of MAP and WB.

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Annex 1 – Names of BMA and WB species

Name			
Scientific	**Albanian**	**English**	**Serbian**
Achillea millefolium	Bar pezmi	Yarrow	Stolisnik
Aconitum napelus	Pelini	Aconite	Jedic
Allium ursinum	Hudhra e arushës	Ramsons	Medvjeđi luk
Anemone nemorosa	Fillikatja e pyllit	Wood Anemone	Bela sasa
Antennaria dioica	Antenaria dioike	Cat's-foot	Srcopuc
Anthylis vulneraria	Antilida	Lady's finger	Vulneraria
Arctostaphyllos uva-ursi	Rrusharusha	Bearberry	Medvjetka
Arthemisia vulg.	Pelini i rëndomtë	Mugwort	Komonika
Asperula odorata	Njegjira	Woodruff-asperule	Lazarkinja
Atropa belladona	Helmarina	Banewort	Belebile
Bellis perennis	Lule shqerre	Daisy	Krasuljak
Betua pendula	Mështekna	Silver Birch	Breza
Carlina acaulis	Ushojëza pa kërcell	Carline	Kravljak
Castanea sativa	Gështënja	Sweet Chestnut	Kesten
Centaurium erythrea	Bar ethësh	Common Centaury	Gorcica
Cetraria islandica	Ushojëza pa kërcell	Island Cetraria	Islandiski lisaj
Cichorium intibus	Bresa	Chicory	Cikori
Colchicum automnale	Gjerokulli	Meadow Saffron	Mrazovac
Convollaria majalis	Lotëzonja	Lily-of-the Valley	Djurdjevak
Cornus mas	Thana	Cornell-tree	Drijen
Corylus avellana	Lajthia	Hazell	Lijeska
Crataegus monogyna	Murrizi	Witethorn	Bijeli glog
Crocus sp.	Krokusi	Saffron	Safran
Digitalis lanata	Lule togeza	Grecian Foxglove	Digital
Epilobium angustifolium	Epilob	Fireweed	Vrbovica
Equisetum arvense	Këputja e arave	Field Horsetail	Rastavic
Fragaria vesca	Dredhëza	Wild Strawberry	Sumska pagoda
Frangula anus	Tulkuqi,zogla	Alder	Krusina
Fraxinus ornus	Frasheri	Flowering Ash	Crni jasen
Galium verum	Ngjitsja e vertetë	Yellow Galium	Zuta brocika
Genista tinctoria	Gjinestër	Dyer's Greenweed	Zhutilica
Gentiana asclepiadea	Gentiana e Asklepit	Gentian	Lincurr
Gentiana punctata	Gentiana pikaloshe	Dotted-flowered Gentian	Lincurr
Geranium macrorrhizum	Kamaroshja rrenjemadhe	Cranesbil	Zdravac
Geranium robertianum	Kamaroshja e Robertit	Herb Robert,	Zdravac
Hedera helix	Urthi	Bindwood	Brshljan
Hypericum alpigenum	Lulebasami alpik	Common Alp	Kantarion
Hypericum perforatum	Lulebasami	Common	Kantarion
Juniperus communis	Dëllinja e zezë	Juniper	Borovica
Juniperus nana	Dëllinja e rregjuar	Juniper	Borovica
Juniperus oxycedrus	Dëllinja e kuqe	Juniper	Smrika
Leucanthemum vulgare	Lulemargarita, Lulebardha	Marguerite	Bolovsko oko
Malus sylvestris	Molla e eger	Wild Apple	Divlja pabuka

Name			
Scientific	**Albanian**	**English**	**Serbian**
Malva sylvestris (Fl)	Mëllaga e pyjeve	Common mallow	Crni slez
Mentha longifolia	Menta	Mint	Metvica
Orchis morio	Salep	Orchis	Kacun
Origanum vulgare	Qaj mali	Wild Marjoran	Mravinac
Petasites albus	Lapua i bardhë	Butterbur	Bijeli lopuh
Petasites hybridus	Lapua hibrid	Butterbur	Crveni lopuh
Plantago media	Cemerdelli	Hoary Plantain	Srednji trputac
Polygonatum odoratum	Poligonati	Angular Solomon's seal	Pokosnica
Primula acaulis	Aguliqja pa kërcell	Primrose	Jagorcika
Primula elatior	Aguliçja e lartësuar	Cowslip	Jaglika
Primula officinalis	Aguliqja mjekësore	Cowslip	Rani jaglac
Prunus cerasus	Vishnja	Sour Cherry	Visnja
Prunus spicosa	Kulumria	Sloe	Trn
Pteridium aquilinum	Fieri i shqipës	Bracken	Bujad
Pyrus sp.	Dardha e egër	Wild Pear	Divlja kruska
Robinia pseudoacacia	Bagremi	Yellow Locust	Bagrem
Rosa sp.	Trendafili I egër	Dog Rose	Divlja ruza
Rubus fruticosus	Manaferra	Dewberry	Kupina
Rubus idaeus	Mjedra	Raspberry	Malina
Salix alba	Shelgu	White Willow	Bela vrba
Sambucus nigra	Shtogu	Elder	Crna bazga
Sanguisorba minor	Sanguisorbë e vogël	Salad Burned	Dinjica
Sorbus aucuparia	Vadha e eger	Roman	Jarebika
Tanacetum vulgare	Karajpeli	Tansy	Vratic
Taraxacum officinale	Lule shurdha	Blowball	Maslacak
Teucrium chamaedrys	Arresi dushkvogël	Common Germander	Dubicac
Teucrium montanum	Arrezë mali	Mountain Germander	Iva trava
Thymus sp.	Krasta	Wild Thyme	Majcina dusica
Tilia cordata	Bliri	Lime	Lipa
Tussilago farfara	Thundër mushka	Horse Weed	Konjska kopita
Urtica dioica	Hithra	Stinging Nettle	Kupriva
Vaccinium myrtillus	Boronica	Bilberry	Borovnica
Veratrum album.(R)	Shtara e bardhë	White Hellebore	Bela cemerika
Veratrum sp.	Shtara	Falsehellebore	Cemerika
Verbascum thapsus	Netull	Wool Mullein	Divizma
Veronica officinalis	Veronik	Common Speedwell	Veronika
Viola odorata	Manushaqja	Sweet Violet	Ljubica
Viola tricolor	Manushaqe trengjyrëshe	Wild Pansy	Sarena ljubicica
Viscum album	Veshtulli	Common Mistletoe	Bela imela

Annex 2: MAP and WB harvest/collection timetable

Scientific Name	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
Betua pendula													Foliage+Cortex
Crocus sp.													Flower
Tussilago farfara													Flower+Foliage
Primula acaulis													Flower
Arctostaphyllos uva-ursi													Foliage
Salix alba													Cortex
Crataegus monogyna													Flower+Fruit
Primula officinalis													Flower
Achillea millefolium													Herb
Thymus sp.													Herb
Anemone nemorosa													Herb+Root
Fragaria vesca													Fruit+Foliage
Verbascum thapsus													Flower+Foliage
Viola odorata													Tot.+Flower
Polygonatum odoratum													Herb
Robinia pseudoacacia													Flower
Sambucus tigra													Flower+Fruit
Asperula odorata													Herb
Sanguisorba minor													Herb
Hedera helix													Foliage
Prunus spicosa													Flower+Fruit
Petasites albus													Foliage+Rhizome
Fraxinus ornus													Flower
Castanea sativa													Foliage+Fruit
Hypericum perforatum													Herb
Epilobium angustifolium													Herb
Urtica dioica													Herb +Root
Viola tricolor													Herb
Bellis perennis													Flower
Convollaria majalis													Total
Digitalis lanata													Foliage+Seed
Rubus fruticosus													Fruit+Foliage
Taraxacum officinale													Foliage+Root
Atropa belladona													Foliage+Fruit
Mentha longifolia													Foliage
Centaurium umbellatum													Herb
Geranium macrorrhizum													Herb+Root
Teucrium chamaedrys													Herb
Orchis morio													Bulbil
Tilia sp.													Flower+Cortex
Plantago media													Foliage
Cetraria islandica													Herb
Veronica officinalis													Herb
Genista tinctoria													Herb
Galium verum													Herb
Anthylis vulneraria													Herb

Scientific Name	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
Antennaria dioica													Herb
Cichorium intibus													Flower+Root
Colchicum automnale													Total
Tanacetum vulgare													Herb
Vaccinium myrtillus													Fruit
Rubus idaeus													Fruit
Hypericum alpigenum													Herb
Corylus avellana													Fruit
Malus sylvestris													Fruit
Gentiana punctata													Rhizome
Frangula anus													Cortex
Origanum vulgare													Herb
Carlina acaulis													Root
Aconitum sp.													Root
Pteridium aquilinum													Rhizome
Sorbus aucuparia													Fruit
Juniperus oxycedrus													Fruit
Pyrus sp.													Fruit
Veratrum sp.													root
Juniperus nana													Fruit
Rosa sp.													Fruit
Juniperus communis													Fruit
Gentiana asclepiadea													Rhizome
Cornus mas													Fruit
Petasites hybridus													Rhizome

Legjenda

Herb+total (surface part)
Flower
Root+Rhizome
Foliage [leaf]
Fruit
Bulbil
Seed
Cortex