RAPPORTS BETWEEN COMPOSITIONAL PARTS OF RURAL AREA IN GJIROKAstra REGION AND ITS PERSPECTIVES

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Abstract:
Concern about environment is linked with its role in existence of society. Some of the environmental features of our region are: degraded terrains, mainly on the slopes, as the result of deforestations, over use of it for agricultural and livestock purposes, degradation of urban environment especially overcrowded area, reduce of green areas, un controlled interferences in infrastructure, degradation of esthetical elements of landscape etc. For a sustainable economic, socio cultural and ecologic development should be paid importance to the assessment of impact on environment of any kind of activity. The essence of a sustainable development in environment as a unit of co functional elements, outside of which cannot be realised the development of our society.

Sustainable development is multifactor and requires the integration of socio economic interest of community, protection of different ecosystems as a value and as an asset, promotion of alternative resources of development, strengthening of people, organizations and other institutions awareness about environment. Providing of environment sustainability of rural area in Gjirokastra region, is a duty that belong to the community, institutions central and local organizations, with the main aim for a sustainable socio economic development.

Keywords: integrated and sustainable rural development, map of registered assets, cadastral area, environmental sustainability.
Introduction

The main factors that cause the misbalance between environment and human beings are economic activities and demographic processes, when they are not done in accordance with principles of ecological science. Conservation of the environment require behaviour and economic activity according to the concept of sustainable development, that is the theoretical basement of long term development of economy and society, because it have in its foundation rational use of natural resources.

The concept of environment require active representation of communities that act in the rural area, for the conservation and regeneration of the resources, well understanding and well keeping of components, respecting of the economical social and environmental action rules for an environmental sustainability.

Types and functions of the integral parts of rural area

Analyse of surface varieties and their use is based on the registering the assets, in regional, district, communal and village levels.

Arable surfaces

Arable surface is prevailing in hilly lowland areas and it consists in surfaces of grain plains, orchards, vineyards and olive groves. Grain plains surfaces, in Gjirokastra region cover 25.5%, grain plains surfaces, in Gjirokastra district cover 23.2%: in Commune Lower Dropull cover 66%, Upper Dropull 34.2%, Lushnëri 33.4%, Libohovë Centre 31.7%. Grain plains surfaces, in Permet district cover 29.7%: in Commune of Dëshnica 35.2%, village of Çarçovë 56.6%, Këlcyrë 49.6%, villages of Commune Petran: 40.6%-53.5%, Commune Centre Piskovë: 46%-62.7% and village of Goricë (Sukë): 45.7%. Grain plains surfaces, in Tepelena district cover 26.5%: in Commune of Buz 43.6%, in villages of Selckë 81.2%, AnëVjosë 72.6% and Gllavë 68.8%. Orchards in Gjirokastër district cover 3.4%, Përmet 3.3%, Tepelenë 4.7% of general surface. Are distinguished villages ToskMartallov (Luftinjë), Golemaj (Buz) Labovë e Madhe and Hundëkkuq (Odrie), Nokovë (Lushnëri), respectively 52.0%, 45.0%, 49.9%, 31.5% e 25.6% of orchards surfaces, in village Krinë (Antigone 14.7%), villages Palokastër and Mashkullorë (Cepo), respectively 16.7% and 13.6. In village Likomil (Upper Dropull ) orchard cover 13.7%, in villages Dhoksat and Erind respectively 10.3% and 10.2%. Vineyards cover a considerable surface in villages Dhuvjan, Dervician, Koshovicë, Likomil, Këllëz (11.5%), Nokovë, Piskovë (28.1%) and Bodar. Olive groves
cover a considerable surface in villages Likomil (11.5%), Dritë (5.1%), Qesarat (13.0%), Krahës (9.2%), Memaliaj Village (4.9%), Përparim (4.8%) and Zhulaj (4.7%).

Forest surfaces

Forests cover 31.4% of the region, 24.5% in Gjirokastër district (villages Sopik 92.8%, Topovë 91.2%, Çatistër 88.7%, Zhej 86.9%, Hllomo 81.5%, Shtëpëz 61.7%, Pepel 56.4%, Picar 55.2% and Plesat 43.3%), 44.2% in Përmet district (villages Lipë 80%, Alipostivan 78%, BënjëNovoselë 76.8%, Leusë 76.4%, Biovizhdë 73.1%, Pagri 70.2% and Strëmbec 61.8%) dhe 34.2% in Tepelenë district (villages Rexhin 82.8%, Gusmar 81.8%, Bylysh 77.5%, Badër 72.6%, Lab Martalloz 70.7%, Ahmanikaj 68.7%, Koshtan 67.5% and Kurtjez 67.3%).

Parkland surfaces and other spaces for relax and entertainment

Sanitary relaxing, aesthetic functions, micro clime, increase the wetness and create cool environments, natural panorama, with parklands and cultivated gardens, sportive areas important for the protection of the land from the strong winds and erosion. Villages with a population ≤500 have 5-6m²/b, with a population up to1000 people have 8m²/b and villages with a population more than 1000 people have 9-10 m²/b. During transition period the green surface was reduced from 12 to 3 m²/b. Parks were built in towns and villages with more than 1000 inhabitants (Picar, Bodrishtë, Village of Këlcyrë). Protected areas cover 7.3% of the forests (16.54% in Gjirokastër and 3.13% in Përmet).

Surfaces for ecotourism use

Surfaces for ecotourism use such are: forest pastures, parklands, torrents, lakes, reservoirs, irrigation channels, channels for water sports and fishing have great values. For pastures surfaces are distinguished villages of Picar, Zagorieetc, meanwhile for water surfaces are distinguished villages of Palokastër, Prongji, Vrisera, Kakavie, Polican, Stegopull, Çarshovë, Zhepë, Gjinkar, Petran, Salari etc.

Surfaces that are roads and irrigation channels have communes Lower and Upper Dropull.
Figure 1: The maps of cadastral zones of Gjirokastra region (PhD. A. Sinani)

Surfaces used as dwelling places for inhabitants are calculated to be round 16-18m².

Lands and squares cover a considerable surface in villages Vrisera, Erind, Dhuvjan, Sofratikë, Vanistër, Bularat, Leshicë, Lulëzim etc.

Surfaces for industrial objects are divided in potential and existing ones.

Potentially suitable for the industry and construction materials are sand lands in commune Libohovë Centre, gritty earth in communes of Krahës and Tepelenë Centre, meanwhile for the surface that cover industrial constructed objects are not possessed data.

Surfaces of fallow land and unproductive
Surfaces of fallow land and unproductive ones cover 5.1% of the surface in District of Përmetit, mainly in villages Iljar, Katundishtë, Kodrishtë, Munushtir and Goricë.

Figure 2: The map of reaches estate registration of Gjirokastra region (PhD. A. Sinani)

Impact of rural areas regulation of environmental quality

Rapport between environmental action and non action is continuously changeable to reset natural sustainability, which is a responsibility of many actors. The avoidance of conflicts with environment depends on intervention ways done by central and local institutions, organizations, and NGO-s, businesses and communities. This requires a systematic control on all activities that affect negatively on the environment, a more efficient management of the resources that are at the depletion stage, recycling of all possible materials. A great impact on the environment has the reducing of the green area, interruption of natural biologic communication and as the result of fragmenting the green surfaces, “wild”
urbanization, water, air and earth pollution and throwing of unprocessed wastes in the environment.

Administration of natural resources belongs to local authorities, which should increase the abilities, knowledge and qualification for the use of a proper legal administration of environment.

Deforestation, overgrazing, hunting and fishing without criteria, favouring earth erosion and the damage of biodiversity, are given examples of miss management of natural resources in Gjirokastra region.

Culture of environmental services is not yet formed for proper environmental services in rural areas of the region, despite the fact that the need for them is very big especially for the processing of urban wastes and used waters.

Awareness and environmental education of the community is a key factor for the suitable administration of natural resources. Activities done in schools for this purpose are very few in number. Environmental organizations still haven’t done anything to raise the awareness of the community.

Environmental planning that tackles with illegal constructions and without necessary infrastructure, collection and processing of wastes and sewages, abuses with agricultural land, reduce of green surfaces etc; show that there is not a environmental planning in the rural area of the region.

Reasons of environmental problems and degradations of rural environment are deforestations to open new agricultural lands on the slope of the mountains (1945-1990), economical activities and “wild” constructions without taking in consideration the impact on the environment (during transition), the lack of integrated plan for the administration of environment etc.

Poverty and natural environment affect directly to the quality of environment, because the rural population, in order to survive, is using the resources till their depletions and complete degradations.

The impact of population migrations in environment during the transition period has increased the pressure on natural resources, agricultural lands, forests and pasture. Uncontrolled displacements toward urban areas have brought the increase of illegal constructions on agricultural areas and environment damages.
Environmental hot points in abandoned old industrial centres (mine of Memaliaj etc.) create environmental problems with a high risk for the inhabitant’s health.

Air pollution factors in urban areas are very concerning. Private cars, most of them old version burning petrol, cause very pollution of the environment with dust, soot, SO2, CO and poisoned gases. Construction activities should be protective, preventive and processing of the non polluted wastes for the environment.

Suggestions for environmental issues are: to develop environmental informative network using statistical and computer methods; to plan in long terms how to use the physical environment; to strengthen cooperation between ecological institutions and NGO-s with economic institutions serving so to reducing of the pollution and the damages of the environment; to improve the legislation for rational administration of the environment as an obligation of economic subjects to reduce pollution through use of technology that case as less as possible pollution, installing special equipments to process technological wastes and do their recycling etc; to clean rural areas from the liquid or solid wastes, to create ecological enterprises which in collaboration with Regional Environmental Agency, to take care for the protection and well administration of environment; to forbid by law import of polluted goods that cause pollution; through media and other means of propaganda, to aware the community an economic subjects for more care and dedication for revitalizing of damaged natural environments.

**Main problems of rural environment**

*Degradations of plains*

Problem of land degradation it has been a concern before 1990, so in 1964\(^{16}\), with a guideline of Council of Ministers Nr. 9, date. 20.05.1964 “On protection of slope agricultural land from the erosion” was created “commissions for the protection of agricultural slope lands from erosion” with a slope of 5-25% and over 25%. In the land that have been under erosion process were planted grains and other plants. After 1991, the land was damaged. Erosion, poorness, desert process and bad administration were the main problems. The land with the highest norm of erosion in Gjirokastra District is included in the area A in national level, me 52 ton/ha/per year\(^{17}\). Families of the area cannot provide their living from the agricultural land, because they possess in average only 0.6ha.

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\(^{16}\) Official Journal, 5 June Nr. 4, 1964.

\(^{17}\) Common assessment for the place, SKZHES 2003 page. 41, Tirana 2004.
Obstructive factors for the development of the land market are: parcelling abandoning of mountainous areas; lack of establishing; cleaning and deepening of irrigation channels; the use of chemical products, damaging technologies; the destruction of river embankments, damaging of mountainous dams and increase of illegal constructions. In Tepelena district there are round 12450 m³, in 74 cases of constructions, 56 dwelling houses and 18 other objects affected by the use of inert, cutting without criteria of the forests, firing of the forests and pastures that favour erosion and unsafe conditions.

Main sources of land pollution are:

- Use of chemical fertilizers, pesticides, herbicides, and insecticides quake the sustainability of agro system, change the structure and damage the fertility of the land.

- Quantities of expired chemical fertilizers (3700 kg in Gjirokastër District, 4150 kg in Përmet and 5973 kg in Tepelenë) are the pollution sources that should be eliminated.

- Solid and liquid urban wastes (80 m³/day in Gjirokastër District, 20 m³/day in Përmet and 30 m³/day in Tepelenë), are thrown unprocessed being so the main source of land pollution. In Gjirokastër they are collected in the bank of Drino River, in Përmet in village Kutil and in Tepelene at Majkosh area (4990 m²).

- Hospital and industrial solid and liquid wastes and deposits of coal industry (Memaliaj), food, cements etc.

Sewages and septic holes built in not suitable areas that don’t fulfil any technical condition.

Exit of the river waters form the river banks, damages of embankments and mountainous dams have brought gritting of agricultural lands (2.5 ha in Gjirokastër District, 3 ha in Përmet and 5 ha in Tepelenë). From the activity of Drino river are damaged 45 km embankments (from 65 km in total). In 1999, was a damaged protective embankment of Karjan plain from the Nimica River and dam of water basin of village of AndonPoci. Rain have caused the erosion of 19 ha agricultural land (8 ha Gjirokastër District, 3 ha in Përmet and 8 ha in Tepelenë). Regional Directorate of Agriculture and Food in the region are becoming evident every year surfaces that are damaged from the use of banks of the river and erosion. In Tepelenë District, as the result of lack of river dams are damaged 14.3 ha agriculture land meanwhile 157.6 ha. Based on the position and function the most degraded lands are: lands used for pasture, that are not passed by agricultural vehicles and have no owners; lands that use to be orchards; lands close to the dwelling places and main roads used intensively and turned into construction areas. For the erosion of the land and damaging
of balances of ecosystem have affected: climacteric factors that favour erosion; damages of forests and pastures, orchards and other masterpieces that help to establish the land; lack of investments to preserve and protect the agricultural land; damage of levees, protective walls and supportive elements; overgrazing, fires and infrastructural constructions (roads, irrigation channels etc.).

Measures for protection of land are: agronomic (ploughing of the land and cultivation according to line, deep ploughing 1 time/ 2-3 years); biologic (enriching of the land mainly through organic chemical fertilisers, conservation of pastures); hydro technical (network of irrigation channels, draining system supportive walls, terraces, dams, thresholds and fences); organizing-economic (solution of the ownership problems, liberalisation of land market).

Certainly, positive techniques for an ecological agriculture consist in: changes in planting structure of agricultural cultures (expanding of surfaces fodder plants); agricultural circulations, organic fertilisers; ploughing up to 5-10cm and simple ploughing of the land; bio ecologic checking of diseases and those factors that cause damages, use of bio pesticides: selection of sustainable cultivars.

*Land classification according to their slope and possibilities of uses:*

Land with a slope up to 25% can be used without limitation; land with a slope 26-45% can be used for agriculture with some limitations especially as orchards; land with a slope up to 60% are less used for agricultural purposes: orchards, forests and pastures;

Classifications of slopes: <5%, low risk of erosion; 6-25%, medium risk of erosion; >25%, high risk of erosion.

Agricultural land, damaged from the use of bank rivers in Permet District is 150 ha (95 ha in communes like: Dëshnicë 25 ha, Piskovë Centre 20 ha, Sukë 20 ha, Frashër 15 ha and Ballaban 10 ha), meanwhile in Tepelena District is 13.3 ha (commune Tepelenë Centre 6 ha, Qesarat 3.5 ha and Krahës 2.8 ha). Agricultural land damaged and in a risk of erosion in Tepelene District is 157.6 ha commune Memaliaj Village 43.6 ha, Qesarat 43 ha, Tepelenë Centre 39 ha and Krahës 32 ha). Great importance it has establishing of superficial waters and reducing of erosion in slope terrains of water basins. It is necessary construction of soil dams, channels against erosions, group of trees, forests, orchards, irrigation channels, draining systems etc. Are necessary: reforestation, construction of supportive walls, terracing slope terrains, improving of irrigation technologies, cultivation and fertilizing of the land, applying of severe sanctions for the land owners, competencies for the change of land.
destinations (from agricultural land in orchards vineyards and olive groves) should belong to responsible institutions that deal with protection and land management, increase the number of activities that preserve the environment (foresting, bee keeping, ecotourism), improving of fertilising and irrigations technologies, minimizing the use of chemical fertilisers, improving valley plants in new lands open recently to be used as pastures, providing control of water basins cleaning them from sludge, cleaning of fallow land from the shrubs, planting them with agricultural plants, foresting slope terrains, or turning them into orchards, in order don’t to fertilise them every year, with an active role of associations of land, water, forest users, avoiding cutting of the trees and constructions in areas of a high risk of erosion, cleaning of dams and torrent beds, avoidance and using of under earth galleries that are an important source of sediments.

**Problems that are connected with degradation of flora**

Flora is damaged in a continuous way from human activities. Physical degradation happened as result of: entropic erosion (deforestations and massive fires in Permet District), replacing natural plants with cultivated plants, overgrazing, hunting, and fishing without criteria; biotic erosion (damage of biodiversity and biotic resources and wild animals). Wood covers 78% of total needs of rural families for warming and cooking during winter period and 53% during summer. Main problem is forest degradation, in Hllomo and Kardhiq from collapses and slides of the ground. Main suggestions are: planting simple plants (herbaceous flora), periodical cleaning of summer and winter pastures, measures against fires, increase of water basin capacities for livestock.

Problems linked with the quality of the waters traditionally are showed during the use of waters for irrigation, electricity power, industrial purposes, and tourism. Most of the waters spring from underground sources that have hardness within the allowed norms\(^{18}\). Majority of rural population is supplied with water through well outside their houses. Supply with water in a non continuous way and the lack of disinfection elements increase the risk of pollution. The supply with water of sanitary spaces, in public schools is very problematic issue and a big risk for children health.

Any inhabitant of rural area has an average of 300 l/day. Round 38.78% of the villages are supplied with drinkable water through local water supply systems, but none of them is disinfected. Sanitary institutions take care for monitoring of water supply systems and

\(^{18}\) All natural sources of Lunxheria have a low level of water hardness parameters according to the technical 12 German grade (pH)
physical-chemical analyses have shown that everything is according to the allowed consuming standards.

River system of Vjosa is in risk from the sewages that are joined to its waters unprocessed, so it is very necessary to be built a factory for their processing, minimizing the risk of being polluted by communal sewages.

Main sources of pollution are: human domestic wastes, fermented organic materials from city wastes and food industry, concentration without a purpose of fertilisers and pesticides, old technologies, amortized network of water pipes, random interventions in water pipe system, non disinfection of the water in public water supply systems, joining of sewages with the wells water, raising level of nitrates in natural sources of water, sanitary technical conditions, high level of bacterial pollution (from 2 to 5 Escherichia Coli) in 21% of rural water supply systems.

Problems linked with quality of environment and rural panoramas are connected with three important functions: social, ecologic, economic ones.

Degradation of physical and chemical processes have affected on the quality of environment. Before 1990 were not composed effective policies, and it was an overcrowing of mountainous areas, were implemented wrong practices to extend agricultural terrains, were used harmful chemicals in agriculture, were used old technologies to fertilise the land, were dropped dangerous chemical substances from the shoes factory and there was a lack of ecological education in schools.

After 1990, implementing of trade market put negative pressure on the environment, were overused natural resources, the implementing of land reform affected negatively on panorama, chaotic movements of population were accompanied with panorama problems, dwelling places were abandoned, even land in mountainous areas was abandoned, fishing and hunting without criteria destroyed important habitats, was increased number of vehicles, and was raised the level of pollution from burning of rural and urban wastes and from guns of 1997, there were no places to collect and process dangerous wastes and often their collection it was not planned, sewages and irrigation channels were amortised and there were no legal and fiscal rules to construct new ones.

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19 Bacterial found in water, to clean the water supply, in 200ml water should not be found more than 200 E. coli.
Current trends in the use of space and rural adjustment. The impact of regulation of rural space and environmental quality

Relations Rural space - urban space and urban trends in rural spaces.

Demographic development of urban spaces have created the need for houses, roads, recreational spaces and other necessary services, but at the same time have caused the decrease of environmental quality, increased the conflicts for the use of the land, damaged the cultural and traditional values, increased life cost, and damaged panorama values etc.

Urban trends in rural spaces and urban –rural relations should be supported in following issues: development of agro industry, improving of infrastructure, development of construction sector, transport, education, culture and health system etc, numeric development of rural centres, qualitative changes of rural dwelling places in functional aspect, improving their urbanisation.

Perspective of rural adjusting in the conditions of integrated and sustainable rural development.

“Humanity has ability to do a sustainable development: to complete its requests without compromising the possibilities of future generations to fulfil their needs”20. Sustainability of rural space of Gjirokastra region is found everywhere in many aspects of economic, political, social and cultural life of our society.

This aim should answer to following principles: protection of bio diversity, and prevention of erosion; rational use of water, organic substances in agro- ecosystems and power saving issues.

Suggestions

Getting foreign and local investments, to protect, improve and use the natural assets is a condition for a sustainable rural development, creation of healthy economic environment and a good quality of the life. The interest of owners and users of the land is very high, meanwhile this interest from units of local and central government is very low. The obstacle is the lack of existence of certain offices for the management of the land in communes of the region. The low interest for the agriculture has lead to the abandoning of the land without cultivating anything on it. As result of this is damaged productivity of the land and its biodiversity. Situation of underground waters and water supplies is very concerning, because

it is damaged its quality from the chemical substances, used waters and urban wastes in rivers and basins and have happened the disappearing of some sources during the summer period. For a positive perspective, have more importance combination of integrated and sustainable rural development with urban development, since the cities are active gravitational centres, for it population, agribusinesses small non agricultural industries, markets for agricultural and live stock products etc. A developed agriculture in ecological conditions is determinant to reach the goals for a sustainable development and a very important factor to reach the objectives of sustainability in general.

**Conclusion**

Absorbing investments to preserve and protect, improve and use rationally the natural resources (of environment) is a condition for a sustainable rural development, creation of a healthy economic environment and a better life quality.

Interest of land owners and land users to protect it is very high, meanwhile from the municipality units and local government this interest is very low. An obstacle for this is the lack of Land Management Office in communes of the region. For a positive perspective, it has importance the combining of integral rural sustainable development with urban development, because cities are the active centres of gravity for rural areas, for the population and agro businesses, small industries, markets of agricultural products and live stock products etc. A developed industry in ecological conditions is determinant to reach the goals for sustainability in general. The decrease of interest for agriculture has let the agriculture land abandoned turning them in fallow land damaging so the productivity of the land and biodiversity. Situation of underground waters and water supply systems is very concerning because it is damaged the quality (from chemicals, used waters and urban wastes etc.) in rivers and water basins and there is also a depletion of sources during summer season.

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