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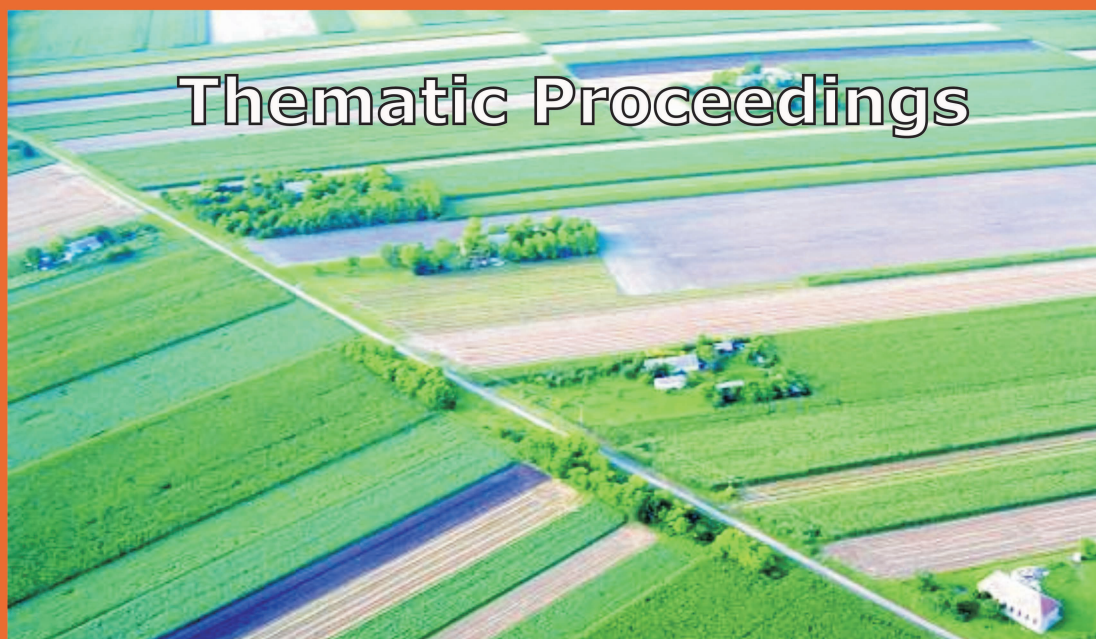
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# DEVELOPMENT OF AGRICULTURE AND RURAL AREAS IN CENTRAL AND EASTERN EUROPE



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## ASSOCIATIONS IN BEEF PRODUCTION

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### CATTLE BREEDING IN SERBIA

Cattle breeding have long history in Serbia, especially in farms in hilly and mountain areas in Central Serbia. However, number of reasons like small estate, low investment potential of farms and depopulation of villages, caused stagnations of number of cattle in Serbia from the middle 1970's from 2.6 millions (from which 1.1 million of calves and heifers and 792 thousand of cows and heifers in calf) in 1975 till 2.4 millions (from which 1 millions of calves and heifers and 898 thousand of cows and heifers in calf) in 1981. From the middle 1980's number of cattle starts continuously to decrease, becoming less then 2 millions entering next decade of transition, economic crises and sanctions (in 1990 there were 1.98 million of cattle, 777 thousand calves and heifers and 1 million of cows and heifers in calf)<sup>3</sup>.

At the beginning of 2000, cattle in Serbia was reduced to only 1.162 million heads (from which 346 thousand of calves and heifers and 722 thousand of cows and heifers in calf), but it was not the end of reducing their number. Increasing intensity of reconstruction and privatisation processes have closed gates of big facilities for fattening, rent traditional repro-chain represented in big state combines and none possessing of export licences has unable obeying export quotas for baby beef on EU market and de-stimulates cattle producers. At the beginning of 2005 cattle production in Serbia had less than 1.1 million of head, of which 341 thousand calves and heifers and 698 thousand cows and heifers in calf<sup>4</sup>.

Law production has resulted in export declining. In 2004, 1,793 tonnes of beef were exported, fresh with bone in, in value of 6.7 million dollars in Italy,

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<sup>3</sup> Statistical Yearbook of Serbia. 1997. Republic Statistic office, Belgrade, 1998.

<sup>4</sup> Statistical Yearbook of Serbia. 2006. Republic Statistic Office, Belgrade, 2006.

Macedonia and Greece<sup>1</sup>, while in 1985 export was around 20,000 tonnes of beef and veal in value of nearly 35 million dollars<sup>2</sup>.

EU-25 is net exporter of bovine animals, beef and veal with bone in, but is also net exporter of significant amounts of beef and veal boneless. On this market annual deficit of high quality beef is from 500 to 600 thousand tonnes.<sup>3</sup> Starting from 2000, EU has approved to FRY, using Regulation on autonomous trade measures, tariff quota for preferential import (20% ad valorem and 20% of specific tariffs) for baby beef in amount of 9,975 tonnes<sup>4</sup>. Use of autonomous trade preferential in 2005 has been prolonged till 2010<sup>5</sup> and up till now there were no possibilities to fulfil that quota because of insufficient production and non-possessing certificate on respecting sanitary and veterinary standards in slaughterhouses. During 2006 activities on increasing number of slaughterhouses with export licence for export of beef was intense, with modernisation and introduction of necessary systems of health safety and quality, and at the end of the year their number was increased from two to five<sup>6</sup>. No matter how modest that number is, having in mind that at the beginning of 1990's in Serbia there were 25 export slaughterhouses, in the beginning of 2006 increasing of number of calves and heifers were recorded for 32 thousand of head comparing to previous year. According to experts, for fulfilling EU quotas at least hundred thousand race bulls, steers and heifers in fattening are necessary.

In period 2004-2006, with highest level of subsidies in amount of 20%<sup>7</sup> export of beef carcasses and half-carcasses, compensated quarters, unseparated or separated forequarters and hindquarters, and other beef meat being stimulated.

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<sup>1</sup> Statistics of foreign trade 2004. Republic Statistic Office, Belgrade, 2006. Internal documents.

<sup>2</sup> How to fulfil expectation in baby beef export in EU? [www.poljoinfo.com](http://www.poljoinfo.com)

<sup>3</sup> <http://www.danas.co.yu/20061024/ekonomija1.html>

<sup>4</sup> Council Regulation (EC) No 2563/2000 of 20 November 2000 amending Regulation (EC) No 2007/2000 by extending to the Former Yugoslav Republic of Macedonia and the Federal Republic of Yugoslavia the exceptional trade measures for countries and territories participating in or linked to the European Union's Stabilization and association process and amending Regulation (EC) No 2820/98, OJ L 295, 23. 11. 2000.

<sup>5</sup> Proposal for a Council Regulation amending Regulation (EC) No 2007/2000 introducing exceptional trade measures for countries and territories participating in or linked to the European Union's Stabilization and Association process, COM (2005) 417 final, Brussels, 12.9.2005.

<sup>6</sup> [www.skyscrapercity.com/archive/index.php/index.php?t-278978-p-3.html](http://www.skyscrapercity.com/archive/index.php/index.php?t-278978-p-3.html)

<sup>7</sup> Official Journal of the RS, nmb. 48/2004 and 70/2004 – corrections; 3/2005; 42/2005; 71/2005 and 81/2005; 5/2006.

As internal measure of support to agriculture<sup>1</sup>, a cattle breeding has budget support for: financing measurement of selection, exhibitions and fairs, cofinancing assurance, long term credits interest concession, providing mechanisation for livestock breeding, investments in construction and adaptation of farm buildings for livestock breeding, etc. Activities concerning consultations and system certification of food safety and system of process management (HACCP, HACCP and ISO 9001, HACCP and ISO 9001 and ISO 14000) are co financed as well as building laboratories for control of food chain.

Tariff equivalent<sup>2</sup> for tariff group 0102 90 *Live bovines (excl. pure-bred breeding animals)* is 30%, except on position with special fee, where is between 123,8% to 132,3%. Tariff equivalent for tariff group 0201 *Beef, fresh or chilled* is between 43,5% to 57,8% and for tariff group 0202 *Beef, frozen* between 56,6% to 72,6%. On these tariff lines current levels of protection are two to three times lower than in EU (except on the tariff lines with special fee). Signing Stabilisation and Association Agreement will be chosen model of phase-in, gradually liberalisation for this sector, so enough time will be given to increase production, maintain continuous export with limited preferential import and rigorous sanitary border control<sup>3</sup>.

However, no matter all above, answer to the question will our farmers and in what measure be motivated to dedicate to cattle breeding is dominantly in sphere of economic valuation of this business. Over 90% (or exactly 93.8%)<sup>4</sup> cattle are in posses of individual farmers. Low level of interest for association of producers and processors has been identified as one of the main reasons for slow recovery of cattle breeding from the crises. As solution we only see alliance of producers with continuous education, which can be realized with highest level of success through clusters.

## CLUSTERS

Clusters are sector or geographical concentration of companies with similar or complementary business activities and mutual necessities for information,

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<sup>1</sup> Ministry of agriculture, forestry and water management of Republic of Serbia. Program of allocation and use of budgetary appropriations for subsidies in agriculture, forestry and water management for 2006, [www.minpolj.sr.gov.yu](http://www.minpolj.sr.gov.yu).

<sup>2</sup> Ministry of agriculture, forestry and water management of Republic of Serbia. Import protection level in Serbia in 2004. Calculated tariff equivalent according to Custom Tariffs from 2001. Belgrade, 2005. IEP, internal documents.

<sup>3</sup> Popovic Vesna, Branko Katic. *Tariff Protection and Export Subsidies in Serbian Agriculture in the WTO and EU Accession Process*. Monograph. Belgrade, 2007. Institute of Agricultural Economics, pgs. 106.

<sup>4</sup> Calculation of authors.

technology, infrastructure, human resources and market. Forming clusters performance of one companies are getting better through direct or indirect cooperation and competitiveness or some companies and regions where cluster is formed are bringing into higher level, and in the bottom line, to while economy. Increasing competitiveness results in raising life standards in longer period of time.

Forming clusters can enable a company for mutual provision of raw materials on better prices, pooled provision of machinery and equipment, mutual education of employees and managers cooperation between economy and educational institutions, lobbying for reducing tariffs and procuring export beneficiaries. Since clusters are in close cooperation with government they have some influence on reform of legislation system.

International competitiveness in globalisation depends more and more on ability to cooperate on local level. Clusters do not group only companies but state institutions, organization for cooperation, financing institutions...

Clusters enable companies to be more productive, with higher level of innovative, more efficient and flexible than when doing alone. Unique knowledge is educed in cluster, a knowledge that is hard to copy and that maintain long term privileges, despite raising globalisation. Process of linkages in clusters should lead to cooperation and development of all parts of clusters, or in other words of small, medium and large companies, institutions and other organisation so that long term advantages can be formed.

### **CLUSTERS IN AGRO-SECTOR**

Some forms of cluster are already known in agribusiness. There are number of successful examples of companies in agribusiness that are organized in cluster's principles. In California there are very successful vine cluster that unite more that 680 vineries and several thousands of grape producers, relaying on local institutions such as Institute for vine. In is a bit harder to form clusters in food industry, especially in countries in transition. These clusters should overall several spheres: production of raw materials (farm sector), processing, packaging, transport, storage and sale. Since clusters usually unite small and medium enterprises, it is expected from them to invest in missing part of he chain so that cluster can be complete. In countries in transition, SMEs so not dispose of sufficient capital to steer in missing links, which are usually processing capacities. Beside, links between primary producers (farmers) and other institutions are loose. All this implicates that associations are mainly organized on horizontal level.

Preconditions to for agro-clusters are legal frame, development of private sector, creating partnership links between members of cluster, development of technologies

in all phases of production, and necessary infrastructure. Main problem is to identify the initiator to form a cluster. In literature there is an opinion that cluster forming should be result of cooperation between companies, based on bottom-up approach.

However, in countries in transition more significant role of state is necessary especially in early phase of forming clusters, sometimes even as initiator. In these countries, clusters dominantly appear in less dynamic activities where price is main determinant of competitiveness. Clusters can not function without certain help from surroundings and before preconditions for their creation are created. Initiative for forming clusters should be given from companies that are interested to become part of clusters, but the role of government is to create environment stimulating for development of clusters, through incentive of education, provision of modern technology and favourable conditions of financing. Government and other associations help development of clusters establishing connections between companies, public sector and NGOs.

Ministry of agriculture, forestry and water management have provided concrete help in cluster development in Serbia, giving starting incentive that resulted in forming several clusters, one in agro-sector. Cluster in fruit industry counts more than twenty Serbian companies and organizations, and one of the results is presentation of fruit and fruit products on international fairs, accomplishing of productions and achieving higher market price in export.

### **CLUSTERS IN CATTLE BREEDING**

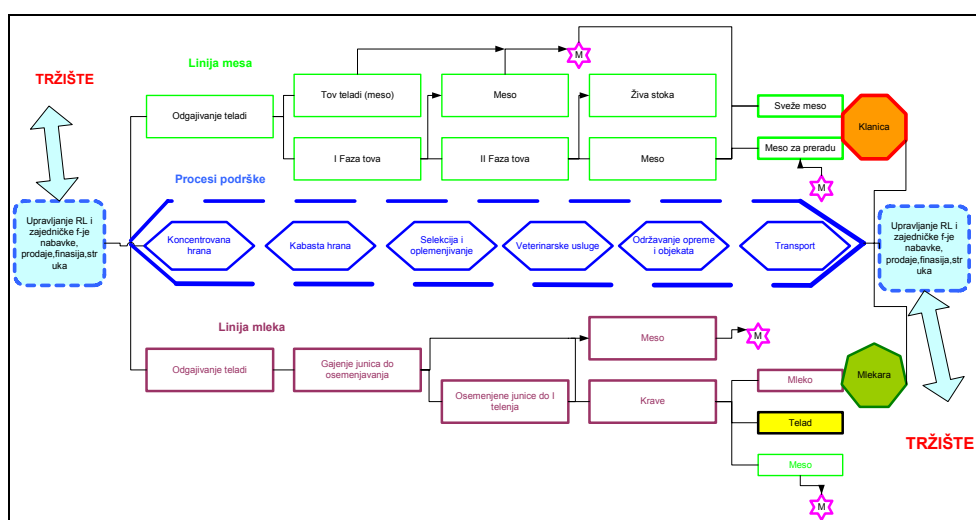
Development of agricultural production based on clusters approach maintains linkages between similar companies and institutions from certain geographical area in organizing production with the purpose of achieving mutual interests. Necessity of clusters can be seen in cattle breeding in Serbia since there is evident existence of unorganized primary production on small farms that used to be a pivot in baby beef production and still have the capacities for that production. Produced meat, or live cattle, is mainly high quality, but also expensive. However, there are indications that the situation is about to change.

Cluster, by its very definition, works locally, so it is realistic to expect from local government to take bigger initiative as well as responsibilities for promoting and creating favourable environment to form a cluster. This is a case with Kolubarski County that comprehends municipalities Valjevo, Lajkovac, Ljig, Mionica, Osečina and Ub, but also works on part of the municipality Lazarevac. Mutual initiative of companies, municipalities of Kolubarski county, primary individual producers, associations and professional alliances, especially Association of Simmental cattle „Kolubara“, extension and veterinarian services, and Regional Chamber of Commerce



Valjevo resulted in project **Development of livestock production and processing in Kolubarski County**.

Primary goal of project is to exploit exiting prerogatives in cattle production – competitiveness in beef sale, quality of race composition, existing of processing capacities and their further improvement, in order to connect everyone interested for this project and to unite their resources aiming increasing capacities in primary and processing industry, creating repro-complexes and export (scheme 1.).



Source: Regional Chamber of Commerce, Valjevo, 2006.

Beside, project should support quality base of data available to all participants, updating trends on the market, the most favourable source of finance, links with professional and similar organisations in country and abroad, cooperation with scientific and educational institutions, mutual promotion and presentation of products.

Capacities<sup>1</sup> for I phase of fattening are estimated on over 15.000 heads (Municipality Valjevo 6000, Lajkovac 1000, Mionica 8000, Ljig 4000...) in one shift (single capacities from 30-100 heads, but also in bigger facilities from 250 heads). Detail analyses of existing objects are necessary along with estimating their current condition.

<sup>1</sup> Reginal Chamber of Commerce – Valjevo. *Basics for program of fattening development for heifers – on territory of Kolubarski County*, March, 2006. Institute for Economics in Agriculture, Beograd. Internal documentation.



One of the encouraging data is that the biggest percent of last year credits in agricultural production were given for livestock breeding or even more specified for production of baby beef. Former II phase of fattening was conducted on farms: Poljoplod, Radobić - Mionica, Jabučje, Stapar. Current conditions of these facilities is as following: **Poljoplod**, capacities 4.000 heads in shift weight 500-550 is in bankruptcy; **Mionica** – initiative for privatisation was given in March 2005, but there is legal-property problem concerning land; **Jabuče** – in bankruptcy, but the facility with capacities of 2.000 head in shift weight 450 kilograms, is in good condition; **Stapar** – no information.

Fast preparation of sufficient quantity of fodder is possible making silage from whole plant of maize. Such silage contains in dry substance more than 40% grain, which is very important for achieving growth. Kolubarski County is territory extremely suitable for maize growth, as well as for other fodders. On territory of the County sufficient number of companies that produce final fodder, but the biggest factory is Unip.

Production program of butchery Divci comprehend veal and pig meat. Capacity is 2.500 tonnes of fresh meat annually, and production is sold on domestic market and export in countries outside EU. This butchery has certified system QMS by standards ISO 9001-2001, as well as HACCP.

Judging on number of cattle in service in Kolubarski County and heifers that are in organised fattening, we can estimate that at least 11,000 calves are outside organised production. This evaluation is made with lower percent of calving (80%) than it is in reality and it is related only on male calves so the number of calves in grey area of production and sale is significantly bigger. This only confirms the need for organised sale and professional association in baby beef production.

Given data imply that capacities in cattle production in Kolubarski County are over or on the level of Republic. In favour of this county goes the fact that Association of Simmental cattle „Kolubara“ is already formed. This association has about 300 raisers, procure professional and extension service and aid, and that not only to its members, pose on fairs and agricultural manifestations. Selection work of this association has been rewarded repeatedly. Engagement of institutions such as Institute for agriculture Valjevo, Centre for agriculture Lajkovac and Veterinary station Valjevo, and all under professional expertise of Ministry of agriculture, forestry and water management of Republic of Serbia indicates long term and undoubtedly success of this project.

Whole idea is still growing and certain problems still have to be solved. These problems are usually connected to investments, so it is a big early to speak about cluster in cattle production of Kolubarski County. Doubtless these ideas are exactly nucleus of clusters way of organising production. Cooperation between institutions in

Kolubarski County has been achieved through this project by evolutionary processes and that can growth in one of the first successful cattle clusters in Serbia.

## CONCLUSION

Operating cluster on domestic market procure successful appearing on international market. Significant attention should be given to clusters in agro-sector in order to straighten export potentials. Clusters are not obscurity in Serbian agribusiness. Former agricultural-industrial combines and agricultural combines had structure and model of functioning relatively similar to modern clusters. Beside, Serbia has traditionally good quality of meat and there is a chance to improve domestic production of beef, which is precondition for straitening this branch.

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