MODEL OF INFORMATION SYSTEM FOR SMART VILLAGE

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Abstract

In this paper presented an concept of information model for development of smart village in the Republic of Croatia with reference to villages in Slavonia region (Eastern Croatia). An insight into the existing supply of structured knowledge and broadcasting of important information in areas relevant to 'smart villages' shows that there are hundreds of information systems that provide information for use in development of local 'smart village' projects. Therefore, this project proposes: (a) introduction of a specific institution (mini consortium of several villages) implementation unit, which will identify information needs for the thematic group of belonging villages, and accordingly (b) construction of an appropriate information system. Based on the results of these analyses, the concept of the "Alberta" information system is proposed .

Graph 1. Five Slavonia counties in the Republic of Croatia

RESEARCH PURPOSE

The aim in this paper is to create regional model of knowledge and information dissemination for villages.

SLAVONIA - BARANJA REGION

Basic data on the region of Slavonia and Baranja are shown in table 1. It should be emphasized that Slavonia and Baranja lost 86,000 inhabitants in period between the two censuses (1991-2001) due to the destruction of the war, and next 85,000 in the next ten years (2001-2011) due to economic reasons (emigration to other regions and other countries). Estimates say that in the period 2011-2021 population also reduced (due to emigration) by about 70,000. The Slavonia region has excellent conditions for agricultural production, but due to poor policy towards the village and agriculture in the last 30 years the villages are losing population.

MODEL OF KNOWLEDGE AND INFORMATION DISSEMINATION FOR VILLAGES
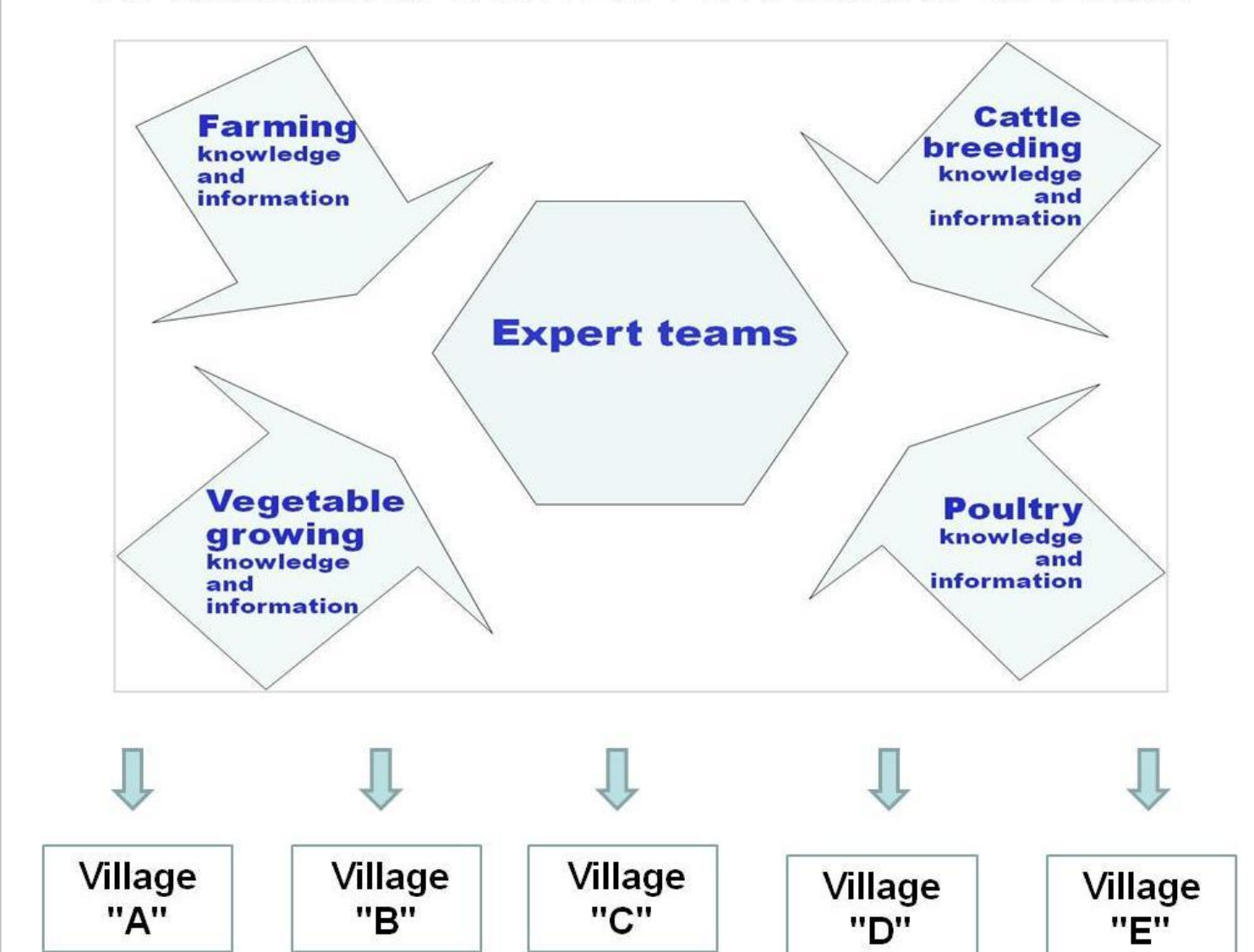
In paper [1] we pointed out reasons why special information model for smart villages is needed and proposed implementation units (several villages that connect the same topics regarding agro production. Here a model of collecting and disseminating knowledge needed for smart village development; Graph 2 and 3.

Table 1
Residents and settlements in the five counties of Slavonia and Baranja (2011 census))

County	Area km²	Population	Number of cities	Number municipalities	Number settlements	Number family farms (2000 y)
Brod-Posavina	2,030	158,575	2	26	185	6,640
Osijek-Baranja	4,155	305,032	7	35	263	11,360
Požega-Slavonia	1,823	78,034	5	5	277	4,686
Virovitica-Podravina	2,024	84,836	3	13	188	6,103
Vukovar-Srijem	2,454	179,521	5	26	85	6,673
Region Slavonia	12,486	805,998	22	105	998	35,462
Republic of Croatia	56,594	4.284,889	127	429	6,756	154,679
% Slavonia in RC	22.1	18.8	17.3	24.5	14.8	15.6

Graph 2. Knowledge and information collection model

Graph 3. Model of knowledge and information dissemination

CONCLUSION

- In the current conditions of rapid growth of knowledge and growth of information, a model of knowledge dissemination for rural development has been set.

- The villages do not have the necessary professional staff, so it is necessary to supplement the expert teams with experts from neighboring cities.

- As social cohesion in Croatia (and Slavonia) is underdeveloped - the implementation of the "Alberta" model will require the coordination of county authorities - as we proposed in the project "Alberta Information System for the Development of Smart Villages", a project for Osijek-Baranja County.

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