

CADASTRAL SURVEY IN THE PROCESS OF MODERNIZATION AND ACTUALIZATION OF THE CROATIAN CADASTRE SYSTEM AND IT`S ADJUSTING WITH LAND MANAGEMENT REGISTER

AUTHORS:

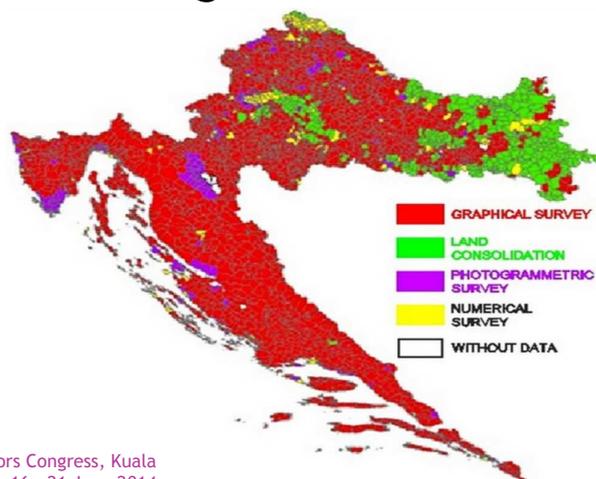
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CONDITIONS OF CADASTRE AND LAND MANAGEMENT

- ◉ Problem with the historical heritage
 - situation in registers which doesn't match with the real situation in the field
 - data differs according to the time and methodology



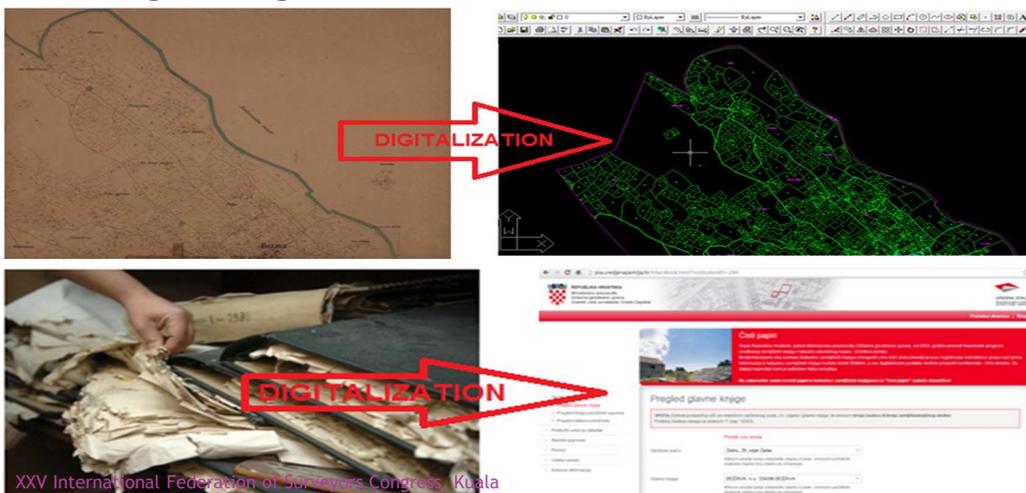
CONDITIONS OF CADASTRE AND LAND MANAGEMENT

- poor condition and lack of promptness in land administration brings immeasurable losses
- actualization and modernization of land administration is the investments that costs money, but ultimately brings benefit in many respects
- Process of transformation:
 - Law on land management register and Law on state survey and real estate cadastre
 - “Real Property Registration and Cadastre Project“
 - “Organized Land“

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“ORGANIZED LAND“

- launched in 2003
- estimated duration of the project was five years
- extended till the end of year 2010
- one of the first phases was to transform cadastral and land management data from analog to digital form



“ORGANIZED LAND“

- ◉ Process of modernization and actualization in the following ways:
 - Cadastral survey - ensures harmonized cadastral and land management data which represents real situation in the field
 - Technical reambulation - limited collection and processing of data with the same purpose as the cadastral survey
 - Individual transformation of cadastral parcel
- ◉ Cadastral survey is the process of collecting and processing all necessary data in order to form cadastral parcels, record buildings and other structures, note special legal rights in the field and the land use, in the purpose of making new cadastre of real estate. (Law NN 16/07)

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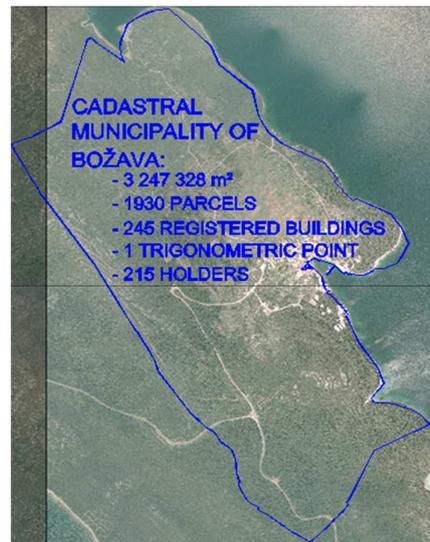
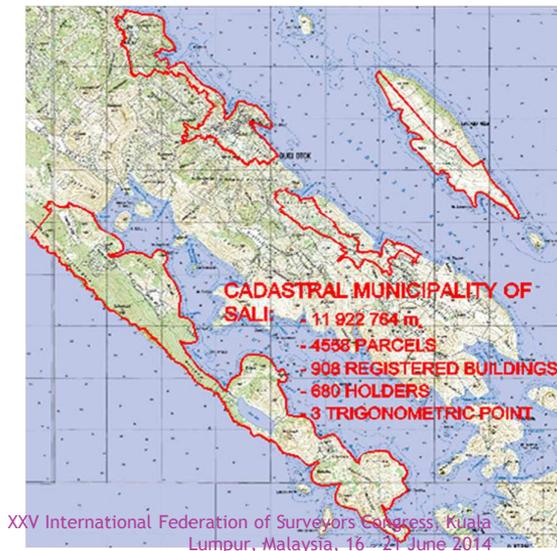
CADASTRAL SURVEY

- ◉ Selection of contractor is based on the lowest offer through procurement procedure
- ◉ 24 months in which contractor agrees to finish all work
- ◉ Phases of cadastral survey must be performed in accordance with the prescribed laws and regulations
- ◉ About the beginning of new cadastral survey, all owners and holders and all interested parties shall be notified by publication in the NN and in local media
- ◉ In general phases of cadastral survey can be splitted on field phase and office phase
- ◉ Company Cadcom Ltd. in the year of 2011 started work on 2 new cadastral surveys located on Long Island in the County of Zadar



PROCESS OF CADASTRAL SURVEY FOR CADASTRAL MUNICIPALITY OF BOŽAVA AND CADASTRAL MUNICIPALITY OF SALI

- Last cadastral survey date in the time of Austro-Hungarian monarchy
- They were measured with graphical methods of survey and have scale of cadastral map 1:2904



FIELD PHASE - DATA COLLECTION

- Collecting all existing data about cadastral municipality which is subject of cadastral survey
- Production of digital orthophoto and digital terrain model for the purpose of planning field works



- “citizens’ gathering” at which all interested parties were acquainted with the defined plan of works, and the obligations they have
- Official notice to join parcels identification

FIELD PHASE - DATA COLLECTION

- Establishing geodetic points network which will be used during the measurement and for subsequent maintenance



- Identification of cadastral parcels was done according to a predefined plan in way that the area of the project is divided in the groups



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TIME SCHEDULE			
Group NO	Date	Day	Time
	17.11.2011	THURSDAY	/
1,2	18.11.2011	FRIDAY	10.00-13.00
3,4	18.11.2011	FRIDAY	13.30-16.30
5,6	19.11.2011	SATURDAY	09.00-12.00
7,8	19.11.2011	SATURDAY	13.00-16.00
9,10	20.11.2011	SUNDAY	08.00-11.00
11,12	20.11.2011	SUNDAY	13.00-16.00
	21.11.2011	MONDAY	/
	22.11.2011	TUESDAY	/
	23.11.2011	WEDNESDAY	/
	24.11.2011	THURSDAY	/
13,14	25.11.2011	FRIDAY	10.00-13.00
15,16	25.11.2011	FRIDAY	13.30-16.30
17,18	26.11.2011	SATURDAY	09.00-12.00
19,20	26.11.2011	SATURDAY	13.00-16.00
21,22	27.11.2011	SUNDAY	08.00-11.00
23,24	27.11.2011	SUNDAY	13.00-16.00

FIELD PHASE - DATA COLLECTION

- During the parcels identification:
 - record identified parcels on sketches
 - person or people who claimed that they are owners and their share in the property
 - document which proves the legality of constructed building
 - address of the parcel and possible legal regimes



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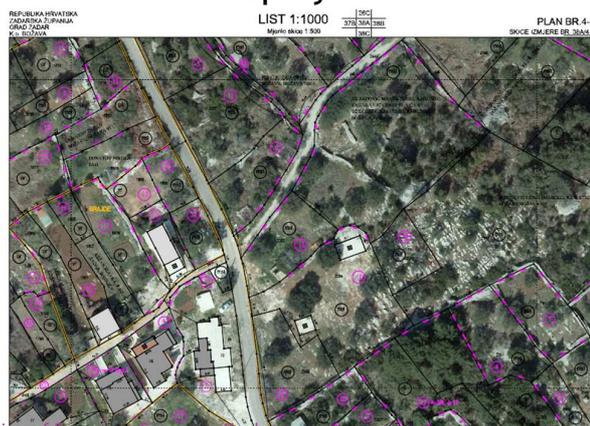
FIELD PHASE - DATA COLLECTION

- ◉ After parcels identification geodetic surveyors can start with process of measuring marked property boundaries, constructed buildings and recording of land use
- ◉ maximum allowed deviation in a measurement are 0.1 m for inhabited area, 0.2 m building land outside the built up area, and 0.4 m for the remaining land
- ◉ During the survey following methods of measurement were used:
 - terrestrial methods for part that includes inhabited area
 - combination of photogrammetric and satellite methods for agricultural area around the inhabited part
 - combination of photogrammetric and terrestrial methods for upland, untreated and mostly forested terrain.

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OFFICE PHASE - PROCESSING OF COLLECTED DATA

- ◉ data collected in the field is processed and are preparing for the process of Public Display
- ◉ Preliminary design are submitted for review to SGA
- ◉ “Proposal of maritime domain“
- ◉ Digital cadastral map is made according to the prescribed specifications
- ◉ evidently lists, supporting registers and sketches of measurement for Public Display



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PUBLIC DISPLAY

- ◉ Data becomes official
- ◉ Cadastre and land register commissions jointly conduct procedure by inviting persons who are recorded in the evidentiary list as holders
- ◉ Persons participating may give objections and the corresponding commission is obliged to consider all objections
- ◉ People who claimed that they are property holders need to prove their right
- ◉ Produce of new land registration files containing the data on cadastral parcels and titleholders and reflecting the actual situation
- ◉ MoJ passes the decision on opening a new land register and closing the old register
- ◉ SGA Head Office passes a decision to start using the new cadastral municipal documentation as official

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ANALYSIS OF CADASTRAL SURVEY

	Cadastral municipality of Sali			Cadastral municipality of Božava		
	Austro-Hungarian survey	New survey	diff. [%]	Austro-Hungarian survey	New survey	diff. [%]
AREA OF THE PROJECT [ha]	1192	1270	6,5	325	328	0,9
NUMBER OF PARCELS	4558	5813	27,5	1930	2506	29,8
NUMBER OF OWNERS	941	1476	57,0	215	260	20,9
NUMBER OF REGISTERED BUILDINGS	908	1965	216,4	245	376	53,5
POINTS IN GEODETIC NETWORK	3	67	/	1	20	/



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IMPACT ANALYSIS OF NEW CADASTRAL SURVEYS AND THE “PROJECT“ IN GENERAL

○ Final Project Report:

- cadastral survey is required activity
- from `03. till `10.:
 - 2.63% c. m. with harmonized data
 - 2.00% c. m. in process of Public Display
 - 4.36% c. m. in process of of survey
- administrative bodies reduced backlog of cases, increased efficiency and reduced their cost

“REAL ESTATE MARKET STUDY IN THE REPUBLIC OF CROATIA“

- ◉ effects of finished new cadastral surveys on the level of local government:
 - zoning and town planning
 - communal activities
 - investment and economic potential of the unit
 - budget funds of local government units
 - maintenance of land administration and the quality of service
 - satisfaction of end users

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THANK YOU FOR YOUR ATTENTION



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