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FIG Working Week
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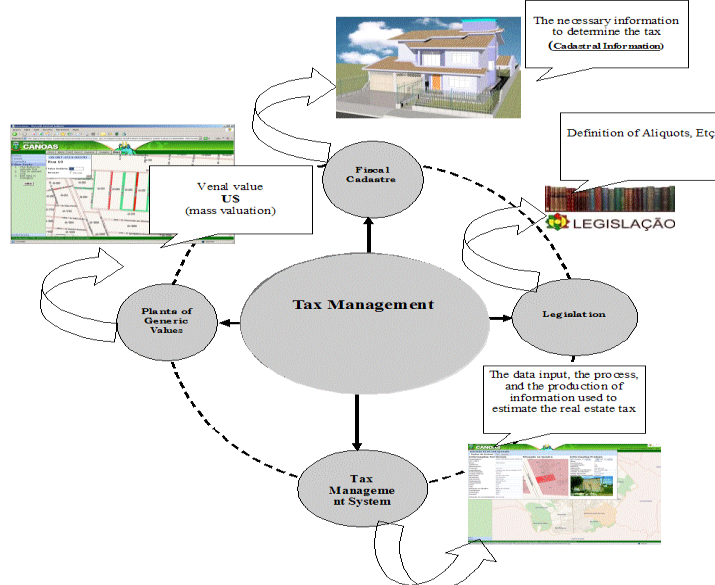Dan Eilat Hotel, Eilat, Israel, 3-8 May, 2009

PROPOSAL FOR THE URBAN REAL ESTATE PROPERTY TAX MANAGEMENT DIAGNOSIS IN BRAZIL

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Maio de 2009

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FIG W...
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The necessary information to determine the tax (*Cadastral Information*)

Definition of Aliquots, Etç

LEGISLAÇÃO

Venal value
US
(mass valuation)

Fiscal Cadastre

Legislation

Plants of Generic Values

Tax Management

The data input, the process, and the production of information used to estimate the real estate tax

Tax Management System

PROCEDURES FOR CARRYING OUT THE DIAGNOSIS

The diagnosis is the phase dedicated to the recognition of all components of the system responsible for the tax management used by the local administration.

Complex process that is carried out through data collection in the field, compilation, and finally, analysis of existing information in the laboratory.

PROCEDURES FOR CARRYING OUT THE DIAGNOSIS

The field work involves a photographical register of the properties, the completion of a cadastral information report, research on the real estate market, and the collection of information on the location and measurements of constructions.

The technical staff responsible for the elaboration of a diagnosis in the urban real estate property tax management must be composed of at least the following specialized professionals: Urban Cartography Technician, Urban Real Estate Tax Technician, Real Estate Technician, Geographic Information Systems Technician, Information Technology Technician.

After the compilation, data collection in the field, and analysis, the technical staff has to elaborate a forecast of the actions needed to correct the problems that were detected.
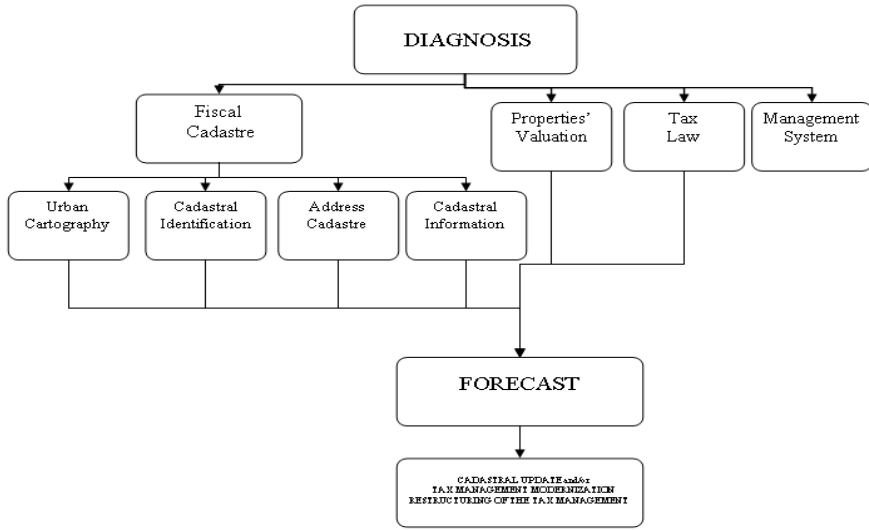
Fiscal Cadastre
Verifying the Urban Cartography

(…) This part of the diagnosis should answer the following questions:

Is there a digital urban cartographic basis in the city?
What is the scale of representation?
What coordinate system is adopted?
Is the coordinate system referenced in the Brazilian geodesic system?
What is the date of the cartographic basis?
What method of elaboration was used for the cartographic basis:
topographic, geodesic, or photogrammetric?
What is the positional, geometric and thematic quality of the cartographic basis?
How is the cartographic basis organized? Does it contain directories,
categories and attributes?
Is the cartographic basis prepared for the GIS environment?
Is there a geodesic reference frame in the city?

Fiscal Cadastre
Cadastral Identification

(…) The minimum requirements for codification of a parcel establishing
spatial logics should, according to Erba (2007):

Present an easy comprehension, that is, the number must correspond to a
spatial location;
Have an easy nomenclature, in order to facilitate recollection;
Be easy to manipulate by the public and administrators;
Have a permanent number(…)

Fiscal Cadastre
Verification of Address Cadastre

In this phase of the diagnosis, the following questions should be answered:

Is there an Address Cadastral Report?
Does the cadastral information on address point to the real location of the property?
Is there information about the urban services (collection of solid waste, etc)?
Is there information on urban equipments?
How is the information on the address cadastre organized? Is there a codification?
Is there information on the price for each square meter per block-face?
Is there information about the legislation on the address?

Fiscal Cadastre
Analysis of Cadastral Information

In this phase, a detailed analysis on the Cadastral Information Report must be carried out, in order to verify the following items:

Is the cadastral information enough to identify the taxpayer (passive subject)?
Is the cadastral information capable of showing the main characteristics of the city's lands?
Is the cadastral information capable of showing the main characteristics of the betterments?
Is there repetition of information?
Is there unnecessary information?
Is there sufficient information?

Analysis of the properties' valuation

In this step, comparisons between samples collected in field work and the venal values present in the tax management system must be carried out to determine whether or not the values represent the current market value.

Analysis of tax law

It is necessary to verify the currency of tax law in order to identify possible inconsistencies which might lead to fiscal inconsistencies.

Tax Management System

In this phase, the following items need to be verified:

Is there a municipal technology system of corporative information?
What are the infra-structure technology information conditions, hardware, software and nets of the city like?
Is there connectivity and interoperability among the different corporative systems?
What is the systems' security level like?
Does the tax management system use Geographic Information?
Does the tax management system have a schedule of verification of inconsistencies in the cadastral data?

EXAMPLE OF APPLICATION OF THE PROPOSED DIAGNOSIS
Fiscal Cadastre
Verifying the Urban Cartography

The City Hall of Canoas, State of Rio Grande do Sul, Brazil:

Its update was carried out by the technicians of the City Hall by means of isolated topography works or new parcels projects.
update was not systematical, had no set standards, and was carried out
in two distinct bases with different software, which resulted in repetition of information
The existing cartographic bases were not prepared to be used in GIS environments and they were also disconnected from the tax management system.

Moreover, it was observed that a geodesic reference net was lacking in the city.

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EXAMPLE OF APPLICATION OF THE PROPOSED DIAGNOSIS

Fiscal Cadastre
Cadastral Identification

The city of Blumenau, State of Santa Catarina,Brazil:

The cadastral number which corresponds to a sequential number (1 to n) that has no relationship with space… which leads to problems in the tax management and wrong statistics on the data of the territory.

As a result, the identification of a parcel was difficult once there was no logic in the spatial identification.

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EXAMPLE OF APPLICATION OF THE PROPOSED DIAGNOSIS

Fiscal Cadastre
Verifying Address Cadastre

The city of Blumenau, State of Santa Catarina,Brazil:

In the department responsible for the technical cadastre, there were two address cadastres managed by distinct systems

EXAMPLE OF APPLICATION OF THE PROPOSED DIAGNOSIS

Fiscal Cadastre
Analysis of the Cadastral Information

In the beginning of the 1970s, the federal government created a program for the fiscal cadastral development of the Brazilian cities. A project named CIATA (Incentive Agreement for Technical-Administrative Improvement of the Municipalities).

EXAMPLE OF APPLICATION OF THE PROPOSED DIAGNOSIS

A   U$---
(worth less)

B   U$ +++
(worth more)

9

Analyzing information in the cadastral register of the project CIATA:

Similar
Information
A = B

Similar
Information
A = B

Information on the Construction		
Situation	**A**	**B**
Characterization	Wood	Wood
Siding	Wood	Wood
Covering	Tile	Tile
Position	Isolated	Isolated
Type of Construction	Wood	Wood
Structure	Wood	Wood
Conservation Status	Good	Good
Wiring	Built-in	Built-in
Construction Position	Front	Front
Façade	Shrunk	Shrunk
Property Status	Occupied	Occupied

EXAMPLE OF APPLICATION OF THE PROPOSED DIAGNOSIS
Analysis of the Properties' Valuations

The generic floor plan (mass valuation), of the city of Criciúma, State of Santa Catarina, Brazil, was outdated and not compatible with the market reality. Its update used to be made using the inflation index.

EXAMPLE OF APPLICATION OF THE PROPOSED DIAGNOSIS

Analysis of tax law

The city of Criciúma, State of Santa Catarina, Brazil:

The way the tax was calculated was too simplified, taking into consideration fiscal zone, the land's area, constructed area.

EXAMPLE OF APPLICATION OF THE PROPOSED DIAGNOSIS

Analysis of the tax management system

Regarding the tax management system, information from Canoas will be used, where the following problems were identified:

The tax management system was not based on geographic information;
The existing technology was not sufficiently developed;
The information was not made available for the different users;
There were not connectivity and interoperability between the different systems;
There was not a schedule for the verification of cadastral inconsistencies.

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FORECAST
These proposed actions may be:

CADASTRAL UPDATE (…Update Cadastral Data)

TAX MANAGEMENT MODERNIZATION
(…new hardware and software)

RESTRUCTURING OF THE TAX MANAGEMENT
(…profound changes in all the system responsible for the real estate tax)

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FINAL REMARKS

According to the reasons exposed, it is possible to conclude that a proposal for a diagnosis of the lax management showed that it is capable of identifying the main inconsistencies found in the real estate tax system in Brazil.

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THANKS

Fundação Araucária,

Secretaria de Estado de Ciência, Tecnologia e
Ensino Superior - SETI/PR

Governo do Estado do Paraná

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I am sorry but I do not speak English. In case of doubts or
suggestions, please contact me through the e-mail
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