

MINISTRY OF URBAN AFFAIRS (MINISTERIO DE LAS CIUDADES)

Minister

MARCIO FORTES DE ALMEIDA

Executive Secretary

RODRIGO JOSÉ PEREIRA-LEITE FIGUEIREDO

Director of Institutional Development

ELCIONE MACEDO

Training Managers

EGLAÍSA MICHELINE PONTES CUNHA ALESSANDRO ANDRADE SILVA CLEIDSON DOS SANTOS ELISANGELA CARAVALHO DA SILVA EVERTON SUDRE FERREIRA REGINALDO DE MOURA MORAIS THIAGO LIMA

LINCOLN INSTITUTE OF LAND POLICY

Director of the Latin America and Caribbean Program MARTIM O. SMOLKA

Teaching Faculty/Course Developers

CLAUDIA M. DE CESARE DIEGO ALFONSO ERBA

CAIXA ECONÔMICA FEDERAL (FEDERAL SAVINGS BANK)

President

MARIA FERNANDA RAMOS COELHO

Vice President of the Interior

JORGE FONTES HEREDA

National Superintendent of Technical Assistance and

Sustainable Development MARCIA KUMMER National Manager of Technical Assistance

MARIA TERESA PERES DE SOUZA

Organization and Edition

DIEGO ALFONSO ERBA

EGLAÍSA MICHELINE PONTES CUNHA

Authors and Contributors

ANDREA FLÁVIA TENÓRIO CARNEIRO CARLOS ETOR AVERBECK CINTIA ESTEFANIA FERNANDES CLAUDIA M. DE CESARE DIEGO ALFONSO ERBA EGLAÍSA MICHELINE PONTES CUNHA FRANCISCO HENRIQUE DE OLIVEIRA JURGEN WILHELM PHILIPS

Illustration and Adaptation

HEMETERIO RUFINO CARDOSO NETO

Review and Editing of the English Version

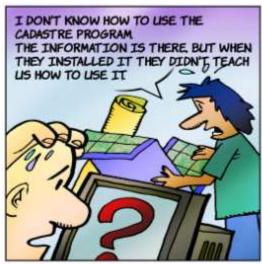
Laura Mullahy

The characters in this story are fictional and were created only for educational purposes.

The original text was developed based on the Guidelines for a Multipurpose Territorial Cadastre in Brazil, and adapted for this version in English.























WE HAVE IMPORTANT INFORMATION













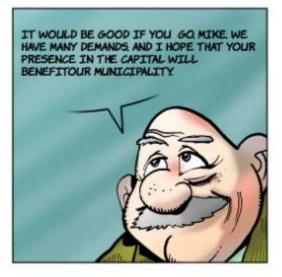


























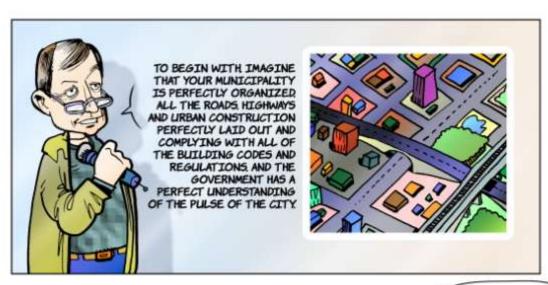


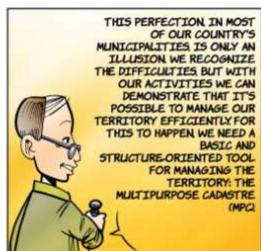








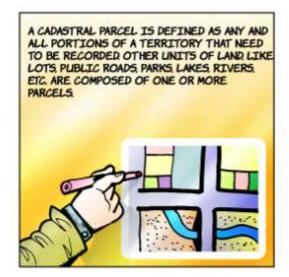


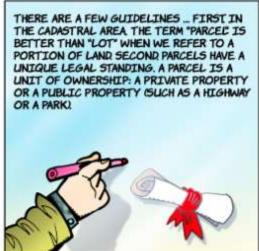






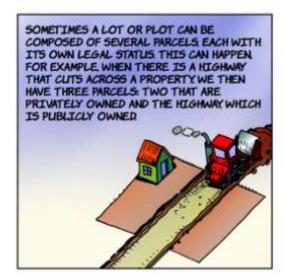


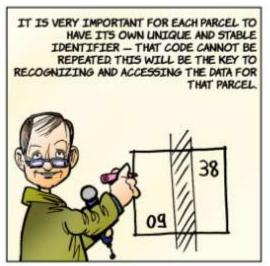




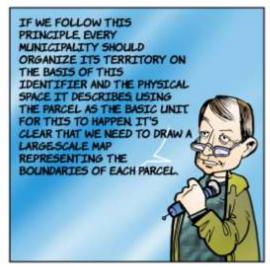








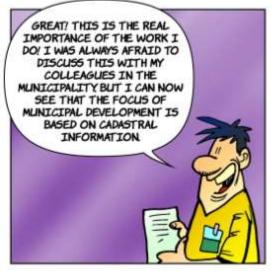




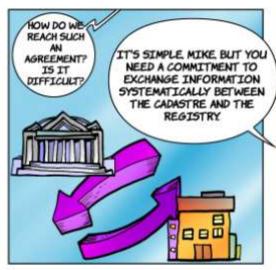






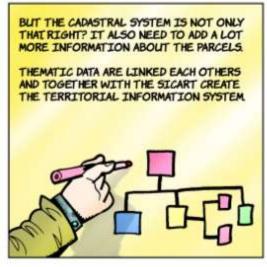


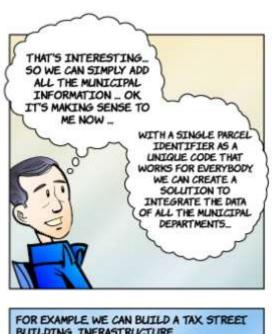


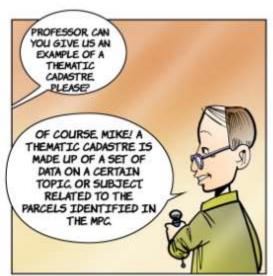
















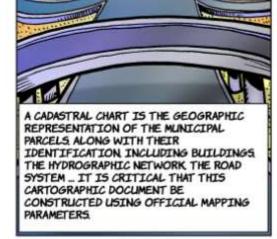


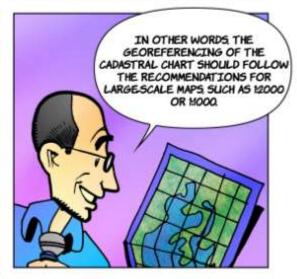






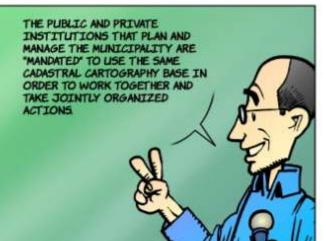






IT'S IMPORTANT TO KEEP IN MIND THE TWO ESSENTIAL ELEMENTS OF A MULTIPURPOSE CADASTRE: A UNIQUE IDENTIFIER FOR EACH PARCEL AND A SINGLE CADASTRAL CHART FOR ALL MUNICIPAL TERRITORY

THESE ARE THE TWO CONDITIONS THAT FACILITATE EXCHANGE OF INFORMATION





PROFESSOR! IN MY MUNICIPALITY THE IDENTIFIER FOR THE ELECTRIC BILL AND THE PROPERTY TAX ARE DIFFERENT: NOW I REALIZE HOW MUCH WE LOSE BY NOT HAVING A STANDARD FOR INFORMATION EXCHANGE...

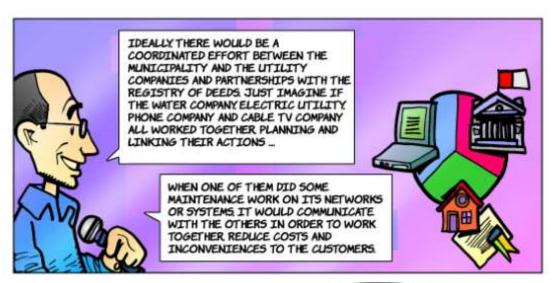
IT WOULD BE MORE EFFICIENT TO WORK FROM THE SAME CARTOGRAPHIC BASE WITH THE SAME IDENTIFYING CODE FOR THE PARCEL.

THAT WAY WE COULD TAKE

JOINT ACTIONS AND SAVE

MONEY





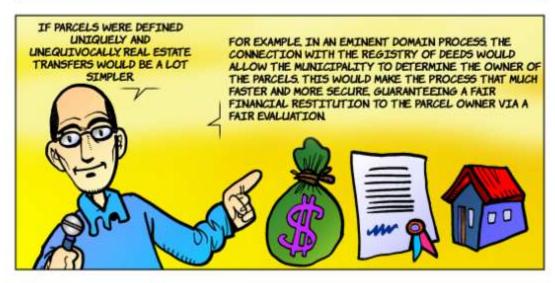


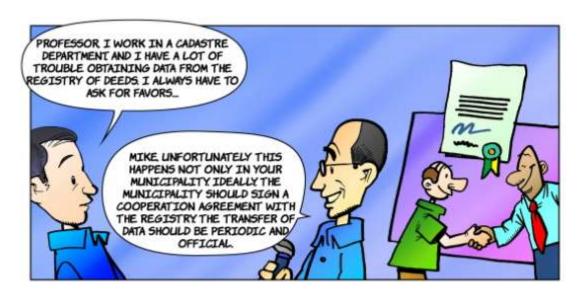












COMING BACK TO THE QUESTION OF THE CADASTRAL CARTOGRAPHY I WOULD LIKE TO SHOW YOU SOME OF THE TECHNOLOGICAL RESOURCES THAT ARE AT YOUR DISPOSAL TO REPRESENT THE MUNICIPALITY GRAPHICALLY INCLUDING AREAS OF INFORMAL SETTLEMENTS.

THIS CARTOGRAPHY SHOULD USE THE TECHNOLOGICAL RESOURCES ASSOCIATED WITH TOPOGRAPHY BECAUSE IT ALLOWS YOU TO REPRESENT THE DETAILS OF THE PARCEL BOUNDARIES WITH MAXIMUM ACCURACY ONCE THE TECHNICIAN IS ON SITE HE OR SHE CAN EVALUATE THE SITUATION UP CLOSE CLEAR UP DOUBTS, ETG.



WE CAN ALSO USE OTHER METHODS, SUCH AS AERIAL SURVEY PHOTOGRAPHY WHERE A PLANE WITH A CAMERA FLIES OVER THE CITY AND TAKES PHOTOS.



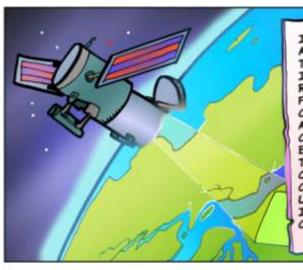
ONCE THE PHOTOS ARE DEVELOPED WE CAN INTERPRET THE CITY FEATURES. HOWEVER IF THE OFFICE TECHNICIAN DOESN'T KNOW THE PLACE WELL THERE COULD BE A SIGNIFICANT MARGIN OF ERROR



FOR CADASTRAL CHARTING, IT IS OBVIOUS THAT THE PARCEL BOUNDARIES IDENTIFIED BY AERIAL PHOTOGRAPHY SHOW GREATER ERRORS THAN THOSE MEASURED IN THE FIELD.

THE TOPOGRAPHIC METHOD HAS A SUPERIOR GEOMETRIC ACCURACY THAN AERIAL SURVEY PHOTOGRAPHY HOWEVER BOTH METHODS ARE WELL ACCEPTED IN THE CADASTRES, AS THEY ARE SUBJECTED TO QUALITY CONTROL MONITORING.





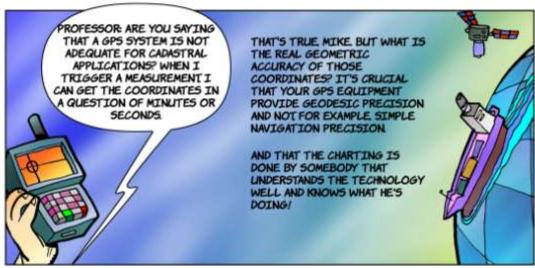
IF AERIAL PHOTOGRAPHY DOESN'T ALLOW FOR A CLEAR DELINEATION OF THE PARCEL BOUNDARIES, SATELLITE IMAGES EVEN WITH SPECIAL HIGH RESOLUTION ARE NOT SUITABLE EITHER FOR THE PRODUCTION OF CADASTRAL CARTOGRAPHY THESE TYPES OF IMAGES ARE IMPORTANT AND CAN BE APPLIED IN CERTAIN CASES, FOR EXAMPLE, THEY CAN BE LISED FOR REGIONAL PLANNING OR TO EVALUATE THE EVOLUTION OF CONSTRUCTION AND GROWTH IN A CERTAIN AREA OF THE CITY BUT UNFORTUNATELY AERIAL PHOTOGRAPHY IS NOT USEFUL AS A SOURCE TO CREATE CADASTRAL CARTOGRAPHY.



MIKE: THESE ARE PRETTY IMAGES THEY ALLOW YOU TO SEE IF YOUR NEIGHBOR HAS A SWIMMING POOL. FIND AREAS OF ILLEGAL SETTLEMENTS OR NEW CONSTRUCTION BUT THEY CANNOT GUARANTEE THE GEOMETRIC QUALITY OF A MEASUREMENT.

IT'S SIMPLE: IF YOU USE THE "HYBRID" ICON IN GOOGLE MAPS, YOU CAN SEE THE STREET MAP AND THE SATELLITE IMAGE BELOW IT BUT THERE IS AN OFFSET AND THE IMAGES DON'T MATCH WHICH ONE IS CORRECT THE STREET MAP OR THE IMAGE? WHICH OF THE TWO APPLICATIONS SHOWS THE CORRECT POSITION?













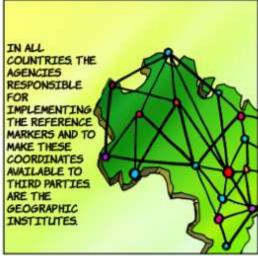










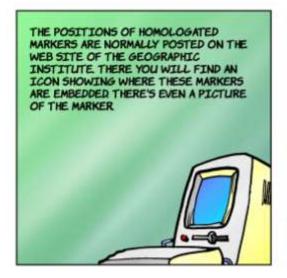




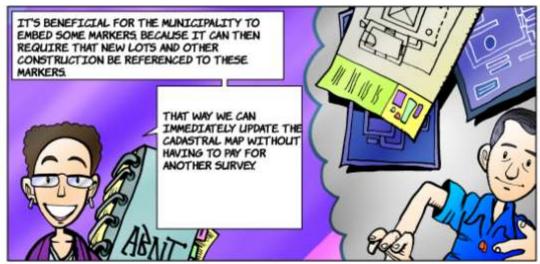


















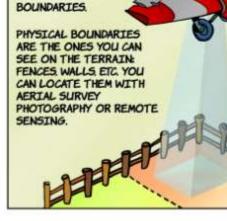


THIS
PROJECTION
THING IS
COMPLICATED





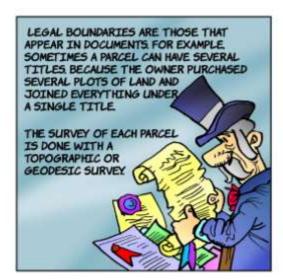




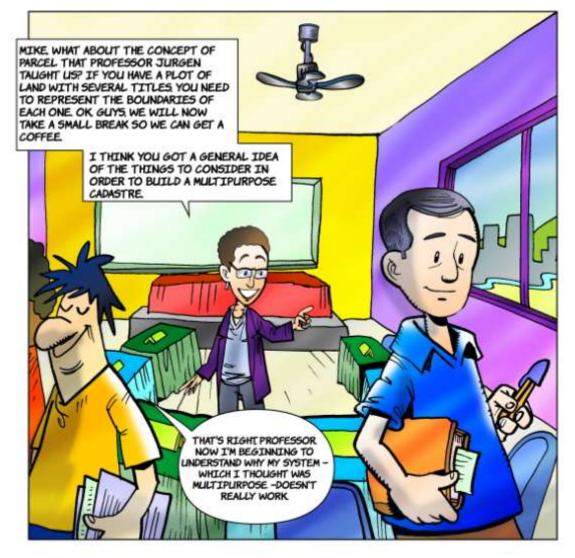
TO CONCLUDE I'M GOING

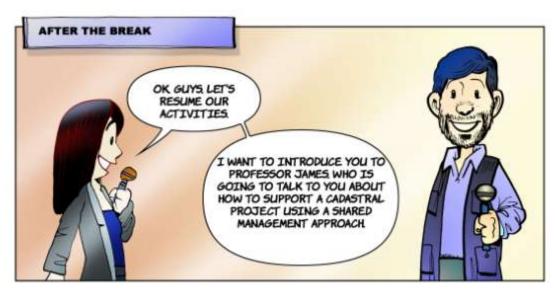
TO TALK ABOUT LEGAL

AND PHYSICAL



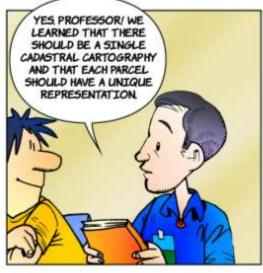


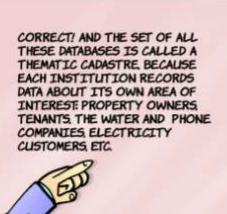




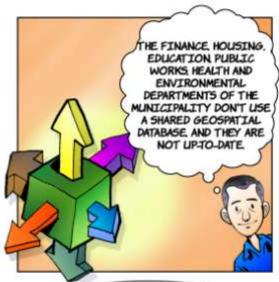










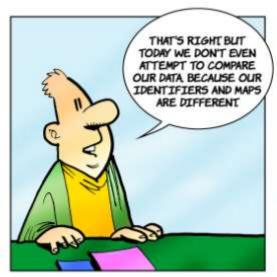


THAT'S WHY WE LOSE A
LOT OF TIME AND
PRODUCTIVITY EVERY
DAY THE EMPLOYEES
ARE SEARCHING FOR
DATA THAT IS IN THE
HANDS OF ANOTHER
DEPARTMENT JUST TO
WRITE A SIMPLE
REPORT

0 0

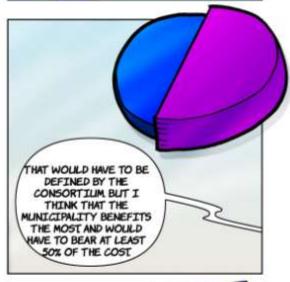












THAT'S A GOOD
PROPOSAL_ KEEP IN
MIND THAT BECAUSE
THE MUNICIPALITY
BENEFITS THE MOST
BY HAVING AN UPDATED
CADASTRE, IT WILL
FROM USE FEWER
RESOURCES BECAUSE
50% OF THE COST
WOULD BE BORNE BY
THE OTHER PARTNERS.

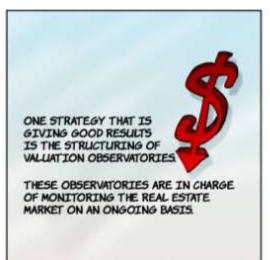












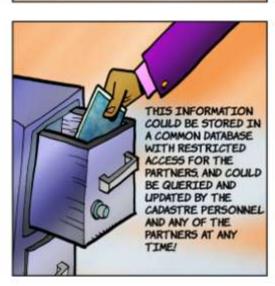


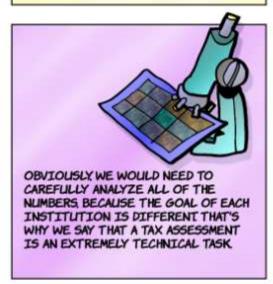






IF YOU SHARED THE REAL ESTATE
PURCHASE AND SALES DATA THAT YOU
OBTAINED WHEN YOU COLLECTED THE
TRANSFER TAX AND FROM OTHER
STUDIES YOU MADE, PLUS THE PRICES
AND ASSESSMENTS, WITH THESE
COMPANIES, EVERYBODY WOULD HAVE
MORE DATA AND WOULD HAVE A BETTER
PICTURE OF THE REAL ESTATE
MARKET!

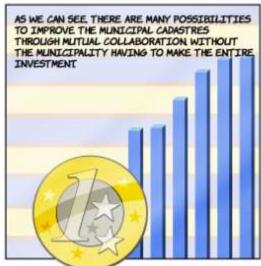


























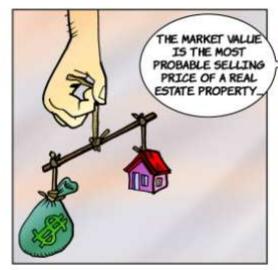






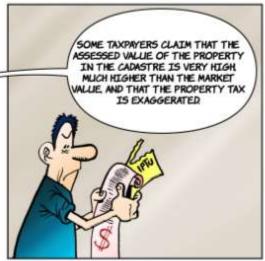




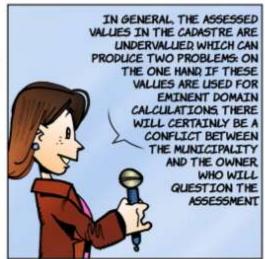








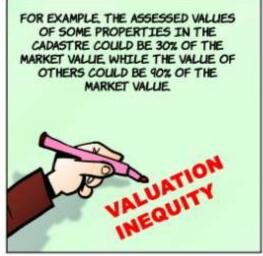








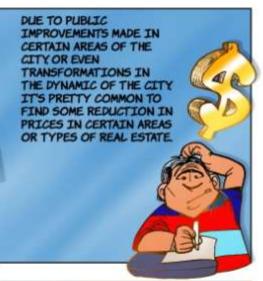










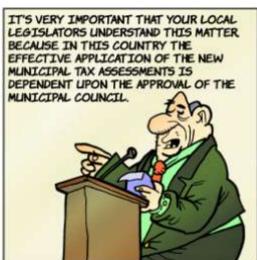




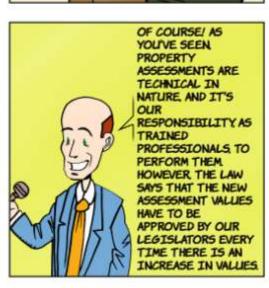


























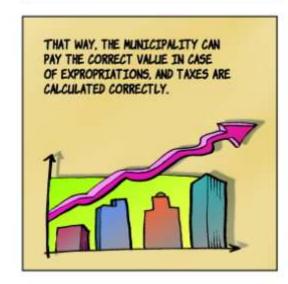




ALSO, THE LACK OF PROPERTY VALUE UPDATES GENERATES A GREAT LOSS FOR THE CITY IN REAL TERMS, AS IT CANNOT PERFORM THE PUBLIC WORKS AND DELIVER THE SERVICES THAT THE SOCIETY NEEDS, AND THE CITIZENS ARE NOT TREATED EQUITABLY.



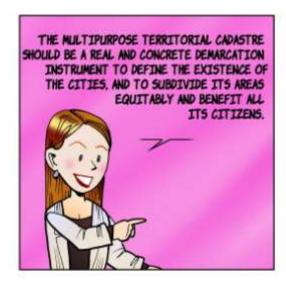
IT'S VERY IMPORTANT THAT THE MUNICIPALITY ASSIGN A REAL MARKET VALUE TO EACH PROPERTY. SO THAT PEOPLE KNOW WHAT THEIR PROPERTY IS WORTH.



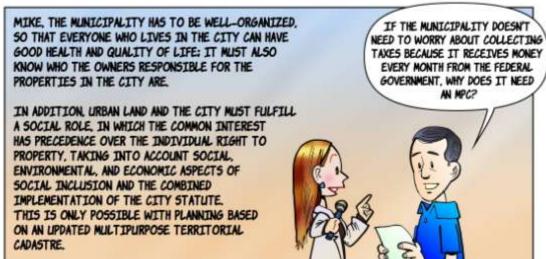




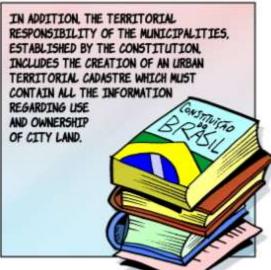












THE MULTIPURPOSE
TERRITORIAL CADASTRE IS ALSO
CONTEMPLATED IN OTHER LEGAL
DOCUMENTS, SUCH AS THE FEDERAL
CONSTITUTION OF 1988 OR THE
CITY STATUTE, THE NATIONAL TAX
SYSTEM AND THE MUNICIPAL TAX
CODES AND MASTER PLAN LAWS.



