

Tax Geographic Information System (TGIS),  
Location of real estate for housing use subject to the  
Solidarity Tax (ISO), in the case of the Municipality of Alajuela,  
Province of Alajuela CR

Ministry of Finance

Directorate of Administrative and Tax Valuations

Abril 2021

# Objectives

## General Objectives

Locate the real estate taxed with the Solidarity Tax for the Financing of Social Interest Housing Projects (ISO) in the municipality of Alajuela, period 2016-2018.

## Specific Objectives

- 1-Prepare the spatial database of real estate taxed with the ISO for the municipality of Alajuela.
- 2- Locate, analyze and register inaccurate and hidden real estate from ISO according to declaration D179, in the municipality of Alajuela.

# Applied Methodology



Satellite Images



Real estate map



Software



National Real Estate  
Property Registry Query  
System

A screenshot of a D179 Solidarity Tax Statement form. The form is a complex table with multiple columns and rows, containing various fields for tax information, including identification numbers, dates, and amounts. The header includes the logo of the "Ministerio de Hacienda" and the text "Formulario D-179".

D179 Solidarity Tax  
Statements.

# Phase 1

Join literal information (D-179) with spatial information (property map).

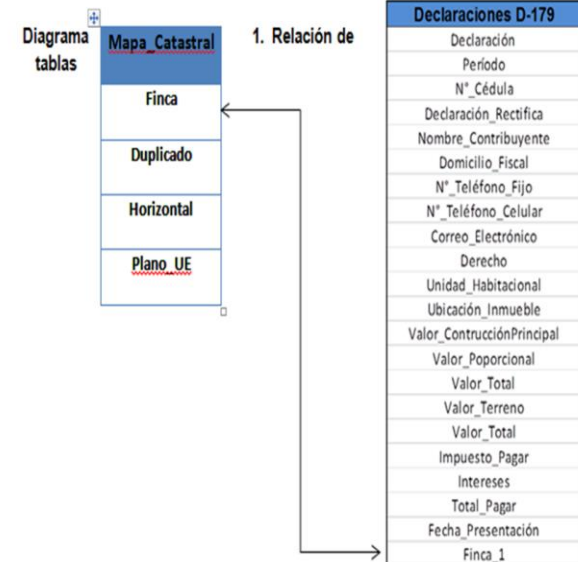
D179 Solidarity Tax Statements

DOCUMENTO	PERIODO	CEDULA	CONTRIBUYENTE	DISTRITO	FINCA
17960	2013	4658XX	XXXX	CABO VELAS	XXXXX
17967	2013	4658XX	XXXXX	CABO VELAS	XXXXX
17960	2013	4658xXX	XXXXX	CABO VELAS	XXXXX
17960	2013	101XX	XXXXX	TEMPATE	XXXXXX
455XX	2012	10xXX		ESCAZU	XXXXX

Real estate map



Join



Input Generated, Real estate subject to the solidarity tax declared and located on the predial map.



# Phase 2 Property correctly declared and property declared as inaccurate located and classified.

HORIZONTAL	Distrito	V. Total	Valor Fiscal	Declarantes
0	1 - ALAJUELA	¢420.362.810	¢ 1.308.579.840	Inexacto
F	8 - SAN RAFAEL	¢244.837.660	¢ 249.236.570	Inexacto
F	8 - SAN RAFAEL	¢233.151.116	¢ 250.441.584	Inexacto
F	8 - SAN RAFAEL	¢314.956.819	¢ 318.479.617	Inexacto
F	8 - SAN RAFAEL	¢161.293.682	¢ 178.767.125	Inexacto
F	5 - GUACIMA	¢229.196.475	¢ 269.116.422	Inexacto
F	5 - GUACIMA	¢305.515.006	¢ 4.990.694.982	Inexacto
F	5 - GUACIMA	¢154.200.500	¢ 201.881.838	Inexacto
F	5 - GUACIMA	¢197.237.041	¢ 245.862.425	Inexacto
F	5 - GUACIMA	¢343.850.000	¢ 930.238.321	Inexacto
F	5 - GUACIMA	¢183.749.000	¢ 190.077.575	Inexacto
F	5 - GUACIMA	¢259.345.000	¢ 400.867.286	Inexacto
F	1 - ALAJUELA	¢232.362.800	¢ 233.362.800	Inexacto
F	1 - ALAJUELA	¢217.576.012	¢ 218.985.468	Inexacto
F	1 - ALAJUELA	¢186.501.681	¢ 187.748.217	Inexacto
F	5 - GUACIMA	¢221.646.488	¢ 227.619.000	Inexacto
F	5 - GUACIMA	¢152.500.000	¢ 174.000.000	Inexacto
0	13 - GARITA	¢245.481.600	¢ 268.806.120	Inexacto
0	8 - SAN RAFAEL	¢333.221.242	¢ 304.560.000	Inexacto
0	13 - GARITA	¢239.888.881	¢ 250.986.852	Inexacto
0	1 - ALAJUELA	¢310.103.000	¢ 356.249.950	Inexacto
0	13 - GARITA	¢862.545.361	¢ 974.476.786	Inexacto
0	5 - GUACIMA	¢199.095.000	¢ 390.135.000	Inexacto
0	5 - GUACIMA	¢182.511.300	¢ 246.570.268	Inexacto
0	5 - GUACIMA	¢218.457.825	¢ 252.484.710	Inexacto
0	5 - GUACIMA	¢224.962.800	¢ 233.293.440	Inexacto
0	5 - GUACIMA	¢173.375.032	¢ 460.000.000	Inexacto
0	6 - SAN ISIDRO	¢185.000.000	¢ 307.708.709	Inexacto
0	5 - GUACIMA	¢208.675.412	¢ 227.731.710	Inexacto
0	5 - GUACIMA	¢256.910.000	¢ 282.062.529	Inexacto
0	5 - GUACIMA	¢196.000.000	¢ 333.312.000	Inexacto
0	13 - GARITA	¢229.788.615	¢ 361.459.000	Inexacto

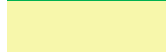


## Simbology

Correctly declared



Inaccurate declared



## 2- Hidden Solidarity Tax real estate located on the property map.



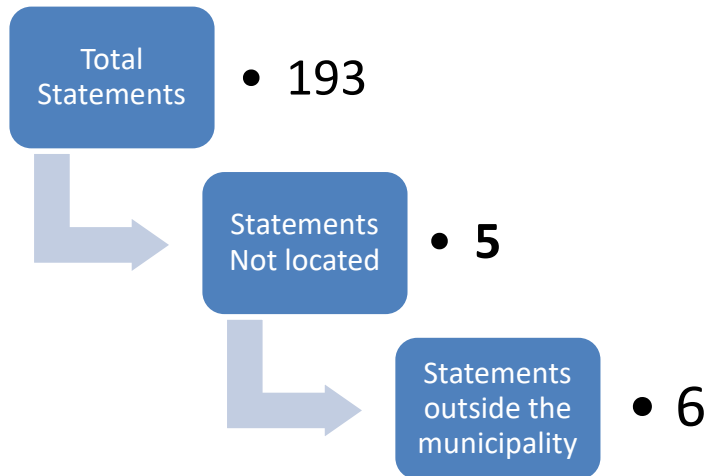
### Simbology

Correctly declared  
Inaccurate declared  
Hidden real estate



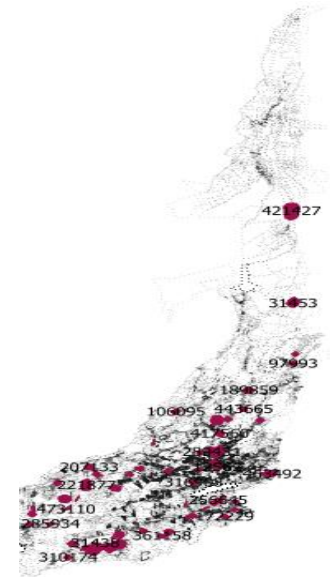
# Results obtained

## Declared Real Estate Located



- Total number of declarations located 184 with Qgis on the Alajuela predial map.

95.33% of declarations located.





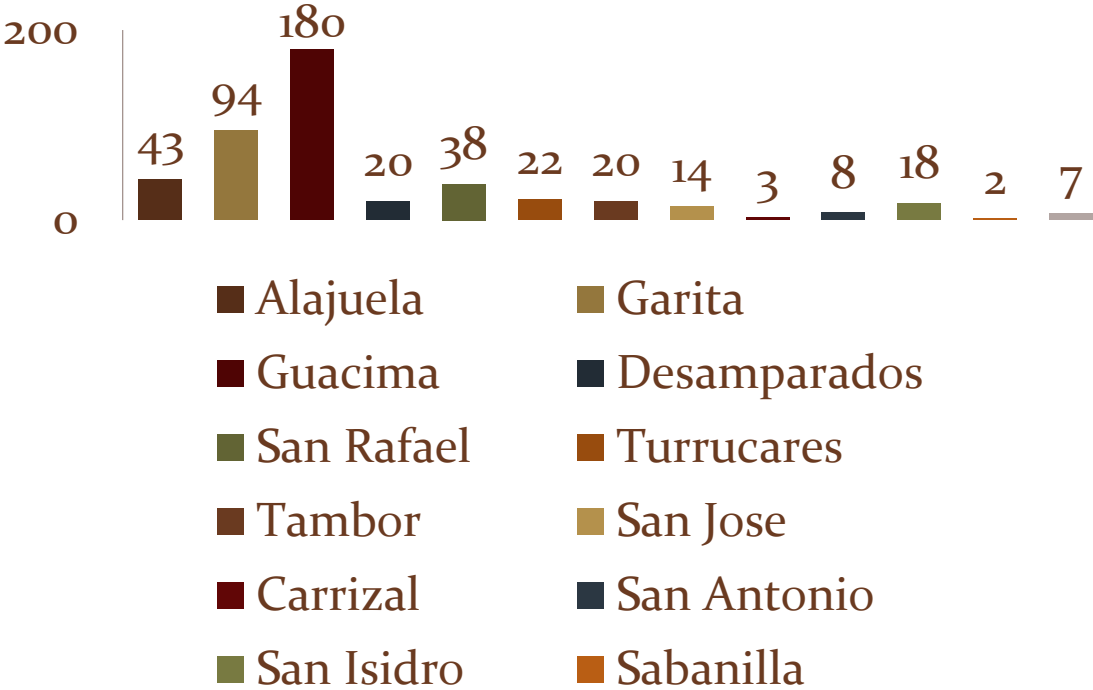
# Real Estate Declared with Inaccurate Values

HORIZONTAL	Distrito	V. Total	Valor Fiscal	Declarantes
0	1 - ALAJUELA	€420.362.810	€ 1.308.579.840	Inexacto
F	8 - SAN RAFAEL	€244.837.660	€ 249.236.570	Inexacto
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- Difference in ISO Declared Values
- Differences between declared values and tax values are an important source of revenue in ISO management.

# Possible Hidden Solidarity Taxes

Districts	Total real estate possible Hidden from solidarity tax
Alajuela	43
Garita	94
Guácima	180
Desamparados	20
San Rafael	38
Turrucares	22
Tambor	20
San José	14
Carrizal	3
San Antonio	8
San Isidro	18
Sabanilla	2
Rio Segundo	7
Total	469



# Lessons Learned

With the application of the TGIS at a national level, 18 municipalities with the highest concentration of real estate subject to ISO have been identified, for which a Tax Control Plan has been prepared, starting with seven municipalities.

# Conclusions

Priority municipalities, by number of solidarity tax declarations.

Solidarity Tax Declarations in 18 Municipalities	
Municipality	TOTAL ALL PERIODS 2009-2019
SAN JOSE	1057
ESCAZU	4681
SANTA ANA	5133
CURRIDABAT	1662
ALAJUELA	1021
ATENAS	
GRECIA	
LA UNION	742
HEREDIA	
SANTO DOMINGO	387
BELEN	596
PUNTARENAS	
QUEPOS	
GARABITO	2572
LIBERIA	
NICOYA	
SANTA CRUZ	
CARRILLO	
TOTAL 9 CANTONES	17851

Source Consulted: Ministerio de Hacienda, D179

# Solidarity Tax Declarations in 18 Municipalities

Municipality	Total number of possible hidden taxpayers detected through cross-checking of information in 7 priority municipalities.
San José	857
Curridabat	195
La Unión	78
Alajuela	400
Belén	634
Santo Domingo	325
Garabito	173
<b>TOTAL</b>	<b>2662</b>

Thank you very much for your  
attention