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CREATION OF TERRITORIAL CULTURAL-HERITAGE TYPOLOGIES IN ECUADOR WITH GIS SUPPORT

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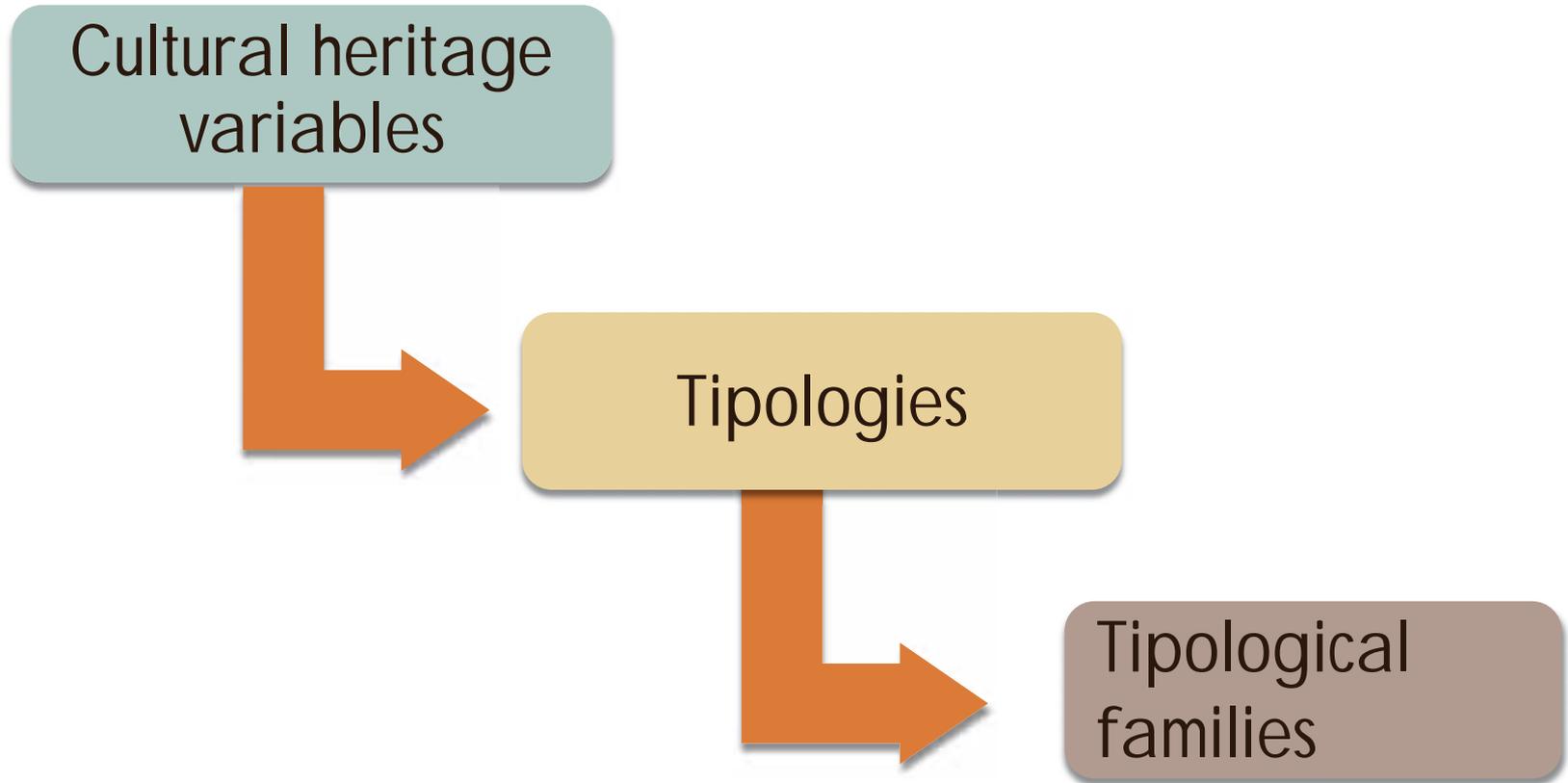
Background

- ◆ Ecuador: Homeland of Mega-diversity
- ◆ Mega-Biodiversity → National System of Protected Areas
- ◆ Mega-Cultural-diversity → National Heritage Areas?
- ◆ Objective: Mapping cultural-heritage typologies in Ecuador.
- ◆ Funded by Ecuador´s National Heritage Ministry/ United Nations

Data

- ◆ Heritage-real states: 19799 registers
- ◆ Inmaterial registers: 2891 registers
- ◆ Archaeological sites: 6612 registers
- ◆ Historical data
- ◆ Indigenous territories

Methods





Cultural Analysis

Historical Analysis

Registers

Formal recognition

- Historical periods:
- Precolumbian
 - Colonial
 - Republican
 - Modern
 - Contemporary

- Number and density

- Heritage cities presence

- Historical routes

- Diversity

- Presence of National Heritage

- Principal cities

- Presence of World Heritage

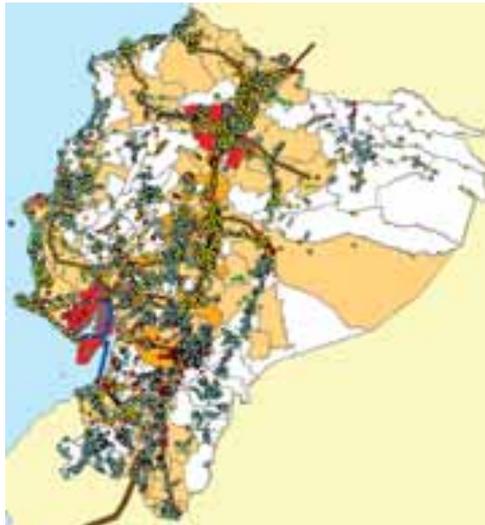
- Principal harbors

- Presence of Indigenous territories

- Registers

Unit area of analysis

Definition of Typologies



Table

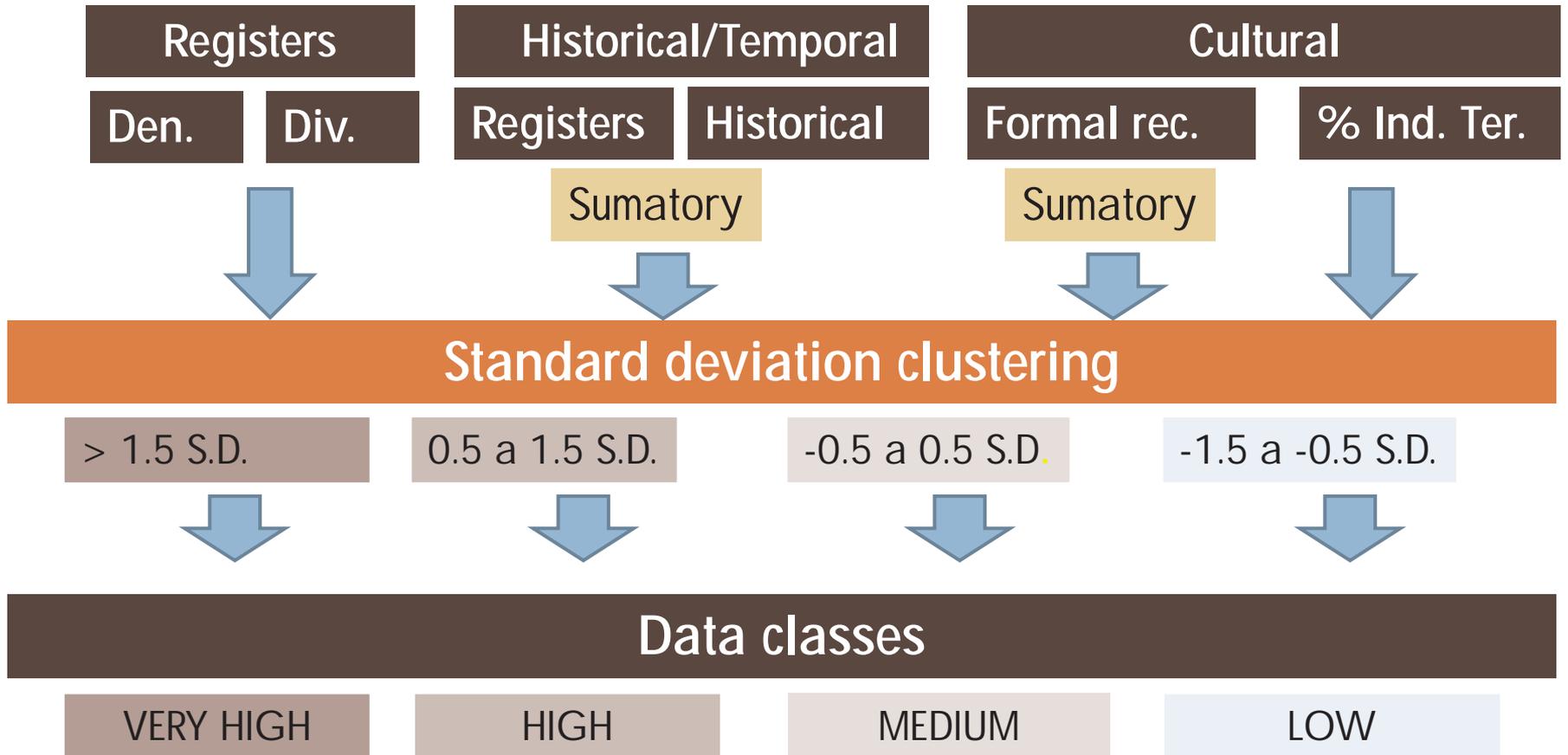
Topologías

DPA_GESCAN	DPA	DPA_DESP	DPA_A	CP	CPA	CPAT_D	C_AJ	CAS	SAP	SAP	PAT_H	PAT_NUM	Pat_tmn	R_Pte	R_GH	R_cold	R_ra	R_Fed	R_Ferri	R_Flu	CE_inte	CE_int	Cl_Co	Cl_Ci	
	CUENCA	1	AZUAY	2010	2	2	Cuenca, Guineo	0	0	0	0	1	CUENCA	1	1	0	1	1	1	0	0	1	1	1	1
	GIRON	1	AZUAY	2010	1	1	Giron	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
	GUACABO	1	AZUAY	2010	1	1	Guacabó	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NABON	1	AZUAY	2010	1	1	Nabon	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
	PAUTE	1	AZUAY	2010	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PUCARA	1	AZUAY	2010	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SAN FERNANDO	1	AZUAY	2010	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SANTA ISABEL	1	AZUAY	2010	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SIGES	1	AZUAY	2010	1	1	Siges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	ONA	1	AZUAY	2010	0	0		0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
	CHORDELEG	1	AZUAY	2010	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	EL PASO	1	AZUAY	2010	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SEVILLA DE ORO	1	AZUAY	2010	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	GUACHARALA	1	AZUAY	2010	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CASILLO PONCE ENRIQUEZ	1	AZUAY	2010	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	GUARANDA	2	BOLIVAR	2010	1	1	Guaranda	0	0	0	0	1	1	1	0	0	1	1	0	0	0	1	1	1	1
	CHILLANES	2	BOLIVAR	2010	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CHIMB	2	BOLIVAR	2010	0	0		0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
	ECHÉANDIA	2	BOLIVAR	2010	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SAN MIGUEL	2	BOLIVAR	2010	1	1	San Miguel	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
	PAJANES	2	MOYATA	2010	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

0 out of 224 Selected

Topologías

Analysis



Pre- tipologies definition

Per unit of analysis (Canton)	Den.	Div.	Hist. Sum.	Formal her. rec.	% Ind. Ter.	
	Very High > 1.5 S.D.				X	
	High 0.5 a 1.5 S.D.	X		X		
	Medium -0.5 a 0.5 S.D.		X			X
	Low -1.5 a -0.5 S.D.					

Statistical analysis

Factorial analysis

5 factors

1: Total of registers, number of heritage real states, important historical cities

2: Total of historical routes

3: Important historical cities

4: % of indigenous territory

5: Number of archaeological sites

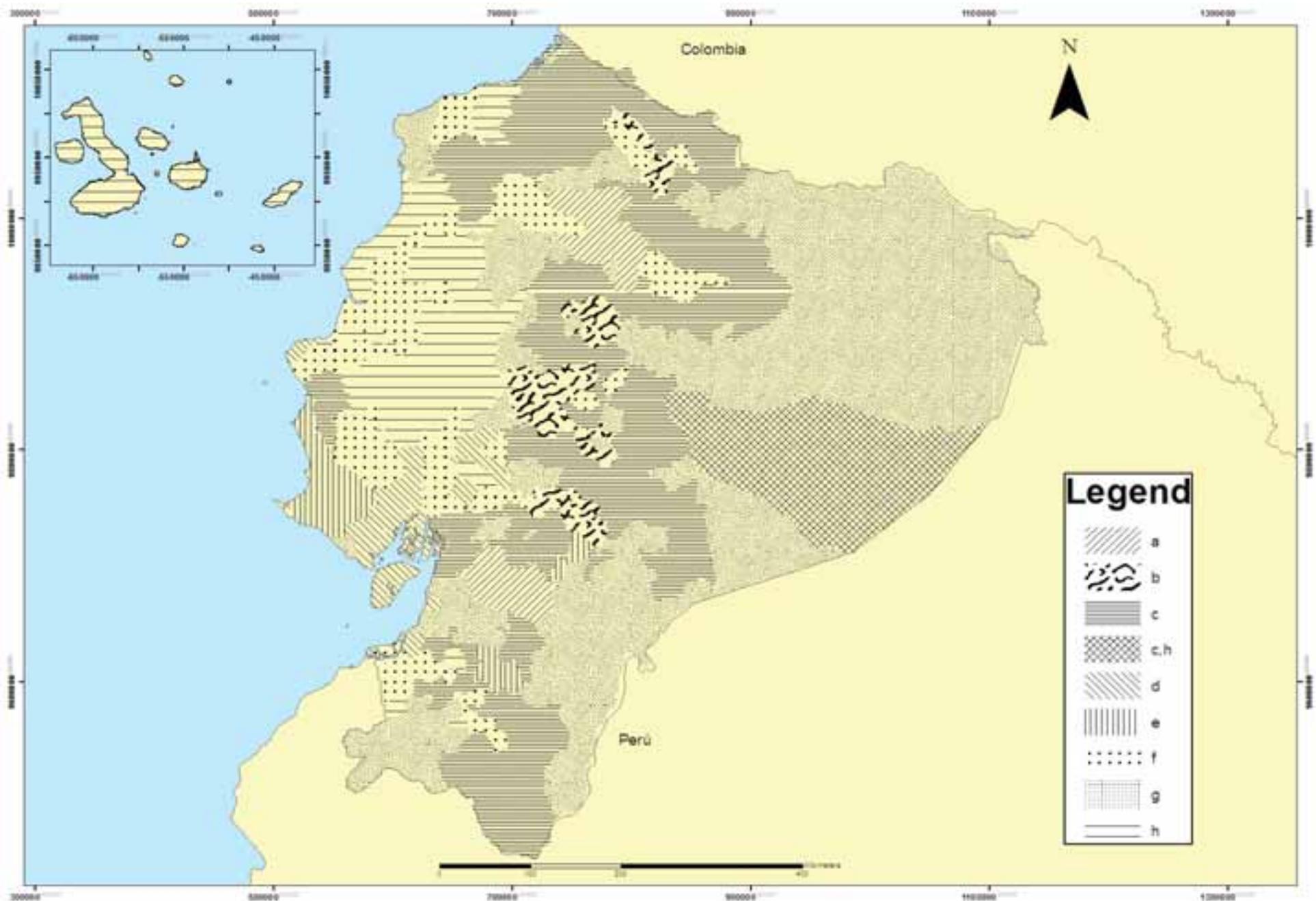
K-means clustering

CLUSTER	Number of Cantons
1	1
2	1
3	160
4	25
5	3
6	3
7	20
8	11

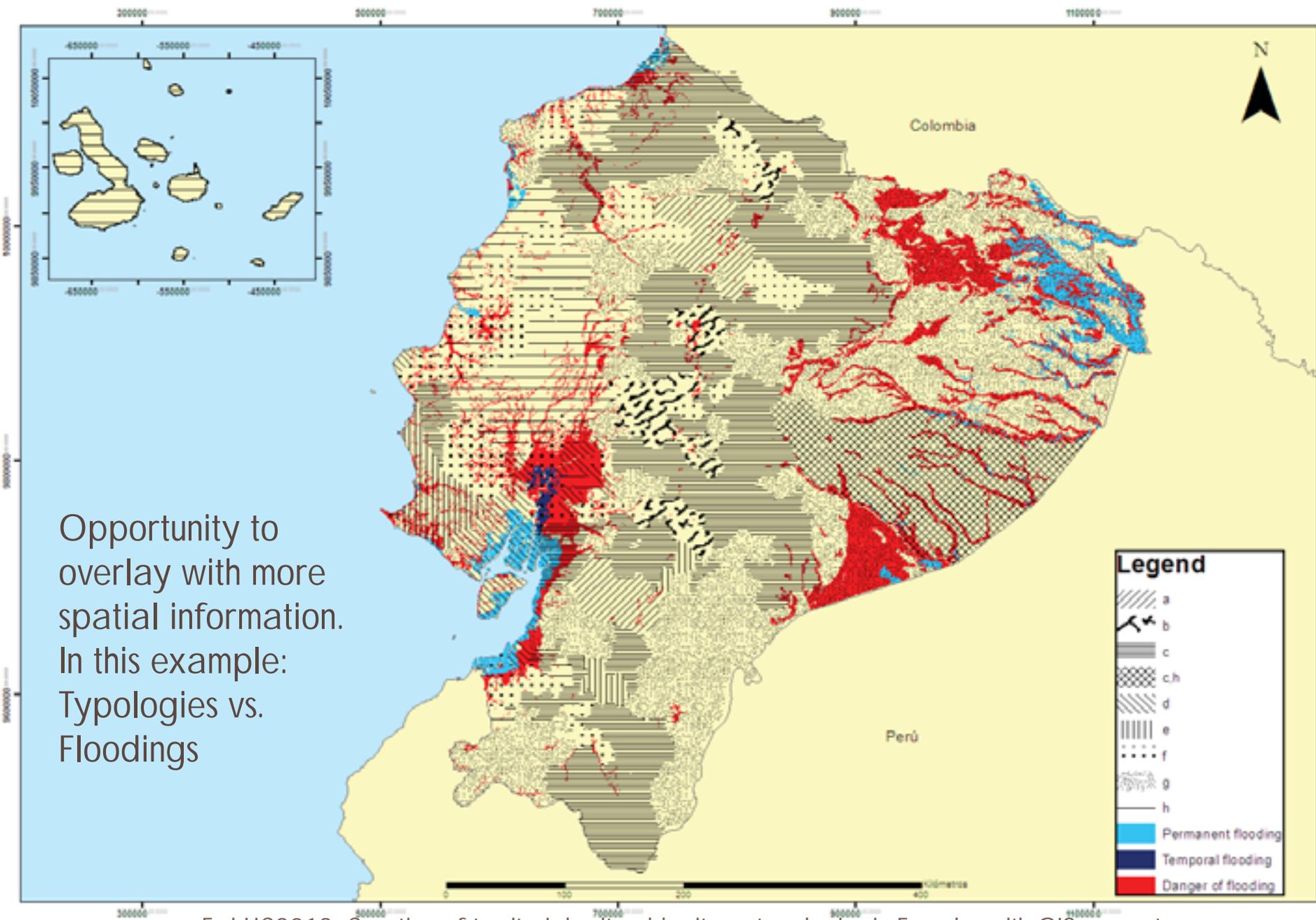
Results

◆ Tipologies:

- a) World and National recognition/High concentration of Cultural Heritage
- b) High historical significance/Indigenous territories
- c) Medium historical significance/Indigenous territories
- d) High historical significance
- e) Medium historical significance/Indigenous territories/High clustering of archaeological sites
- f) Medium historical significance
- g) High presence of indigenous territories
- h) Low cultural heritage



Esri UC2013. Creation of territorial cultural-heritage typologies in Ecuador with GIS support



Opportunity to overlay with more spatial information. In this example: Typologies vs. Floodings

Esri UC2013. Creation of territorial cultural-heritage typologies in Ecuador with GIS support

Conclusions



- ◆ Characterization of cultural heritage in Ecuador taking into account a spatial perspective.
- ◆ Could be a tool that supports the generation of “Cultural Heritage Protected Areas”
- ◆ New and innovative methodology for analyzing cultural data in territories
- ◆ Takes census data and generate information for decision making process for cultural planning



Thank you