

# GIS-Based Spatial Allocation Methodology

Applied to El Paso/ Ciudad Juarez  
Emission Inventory

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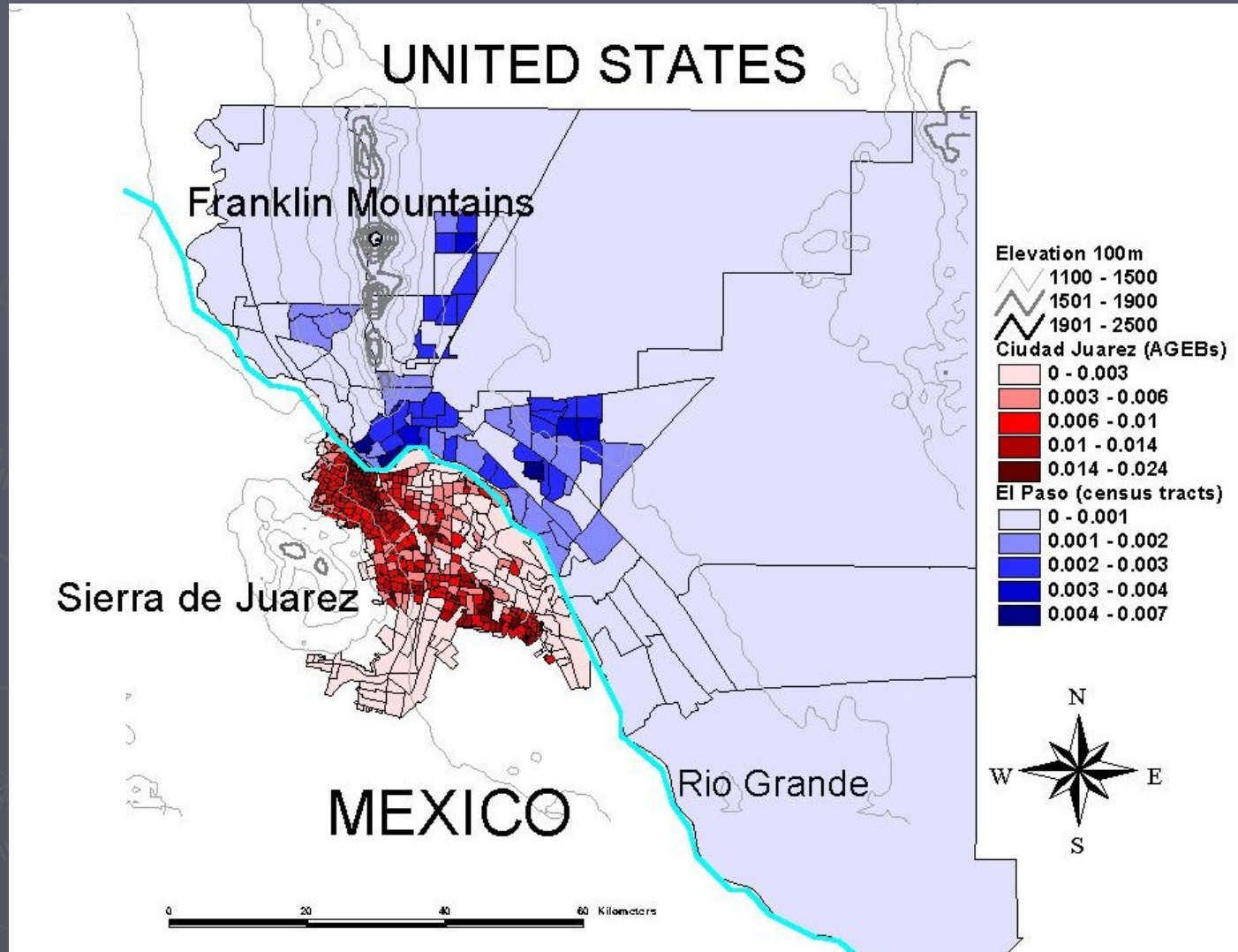
# Objectives

- ? Spatial allocation methodology based on readily available information
- ? Emission inventory in grid format

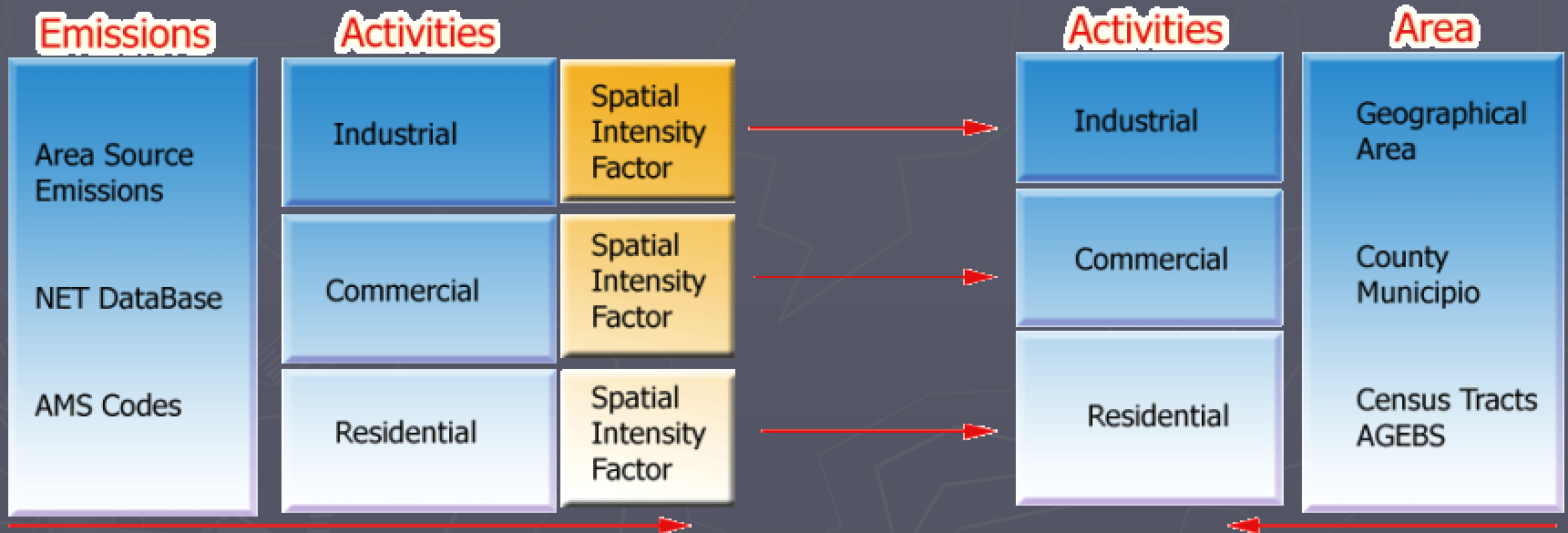
# Methodology

- ? Emission Classification
- ? Area Classification
- ? Spatial Intensity
- ? Geo-processing
- ? Grid development

# El Paso/Ciudad Juarez



# Overview



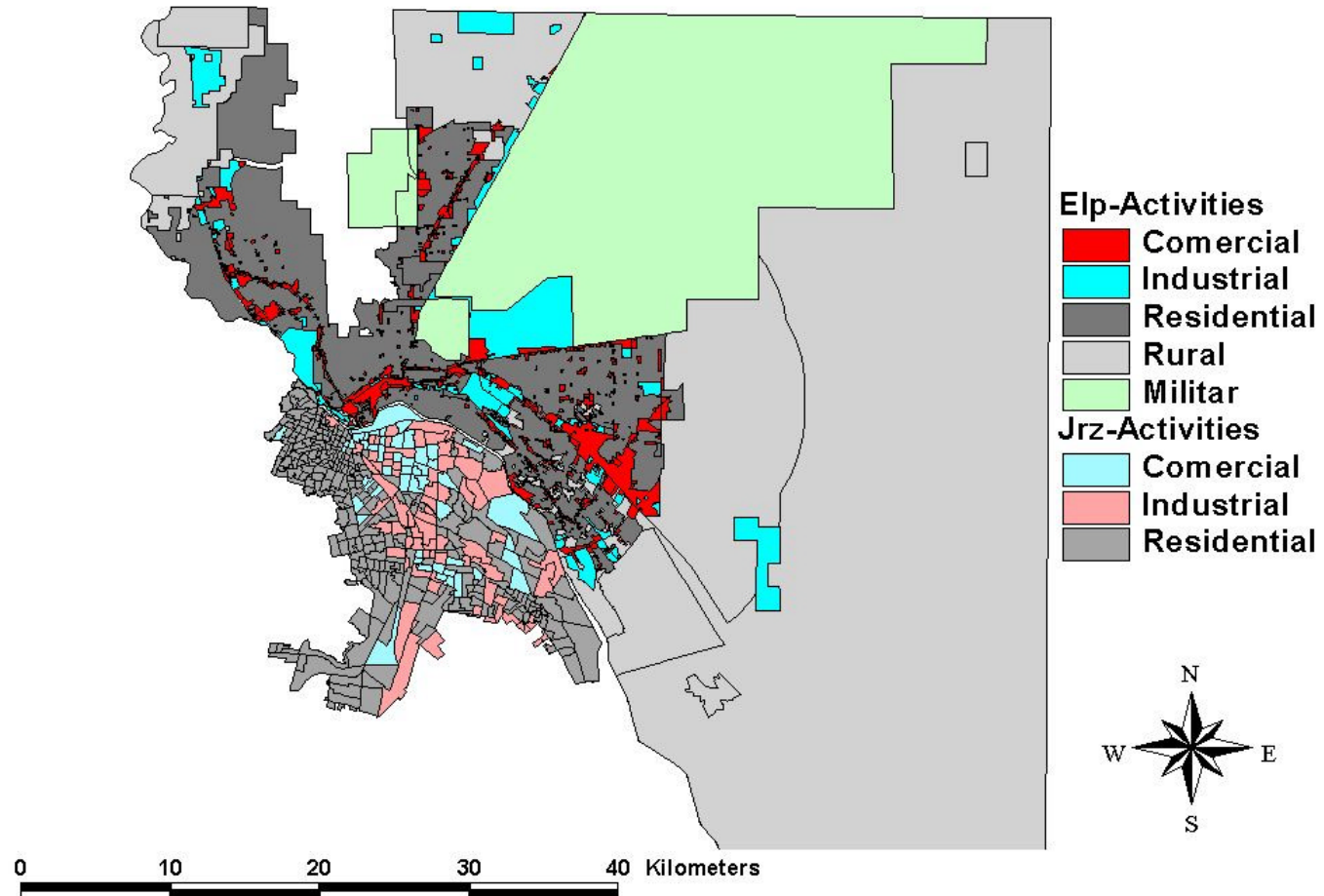
# Emission Classification

Area Sources		Activity Groups			Emissions (t/d)
Location	Type	VOC	NOX	CO	
Jrz	A	6.623556	2.573745	13.49994	0.0037 0.0006 0.0040 0.0012 0.0000 0.0000 0.0000 0.0037 0.0006
Jrz	B	15.23132	7.972951	40.518	
Jrz	C	7.695716	4.594466	3.092765	
Jrz	D	0.514248	2.608065	6.622954	
Jrz	E	0.618383	3.17704	3.85996	
<b>Total</b>		<b>30.68323</b>	<b>20.92627</b>	<b>67.59362</b>	

11	2103007000	B	LPG- Commercial	96123124	43104
12	2302050000	B	Bakeries		
13	2302070001	B	Food & Kindred		
14	2302070005	B	Food & Kindred		
15	2302070010	B	Food & Kindred		
16	2401005000	B	Auto Refinishing		
17	2102004000	C	Fuel Oil Industria		
18	2102005000	C	Fuel Oil Industria		
20	2102006000	C	Natural Gas Indu		
21	2102007000	C	LPG-Industrial		
22	2310000000	C	Ind. Oil & Gas P		
23	2401008000	C	Traffic Markings		
24	2401015000	C	Factory Finished		
26	2401020000	C	Wood Furniture		
27	2401040000	C	Metal Cans		
28	2401045000	C	Metal Coils		
29	2401055000	C	Machinery & Equipment		

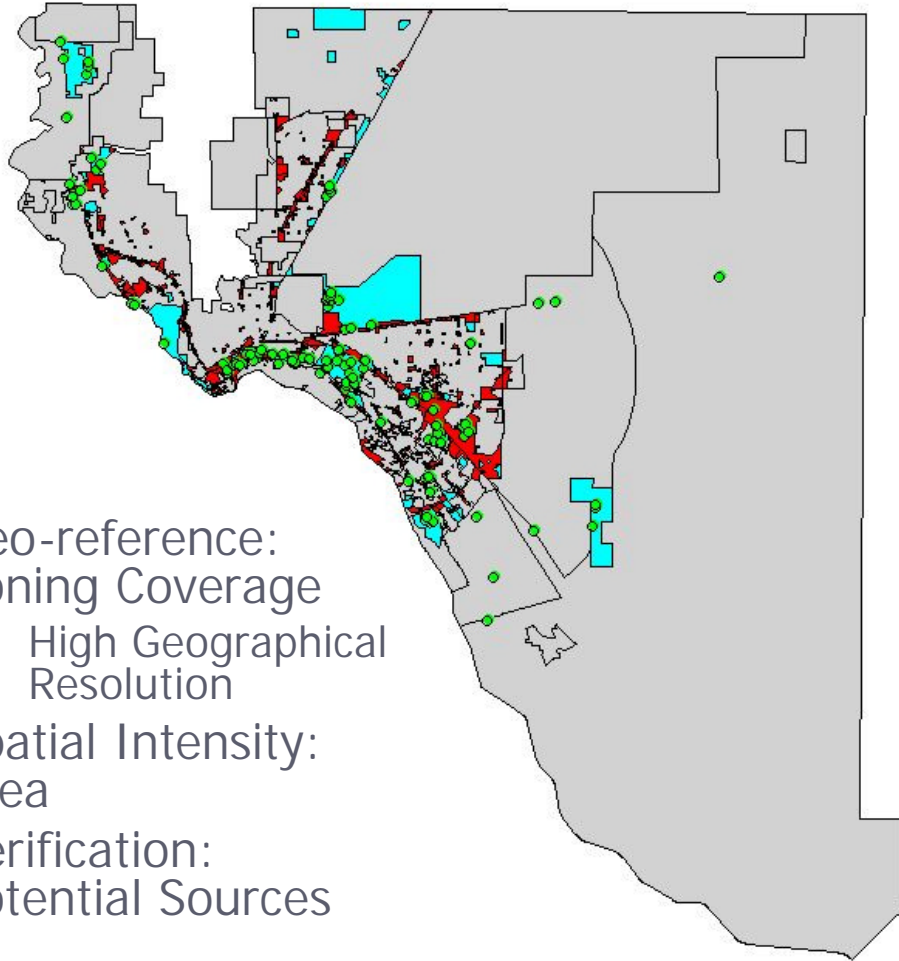
Location	Type	VOC	NOX	CO
ELP	A	15.4136	3.2214	40.2291
ELP	B	10.7077	0.7968	57.3602
ELP	C	6.3401	10.3326	18.8076
ELP	D	2.5237	3.1654	8.8981
ELP	E	2.523	1.3195	3.7532
ELP	M	3.2981	3.71	5.91
<b>Total</b>		<b>40.8062</b>	<b>22.5457</b>	<b>134.9582</b>

# Area Classification





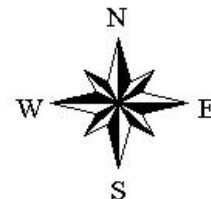
# El Paso Commercial/Industrial



- Potential Sources
- ELP Especial
- Comercial
- Industrial
- Residential
- Rural
- Military

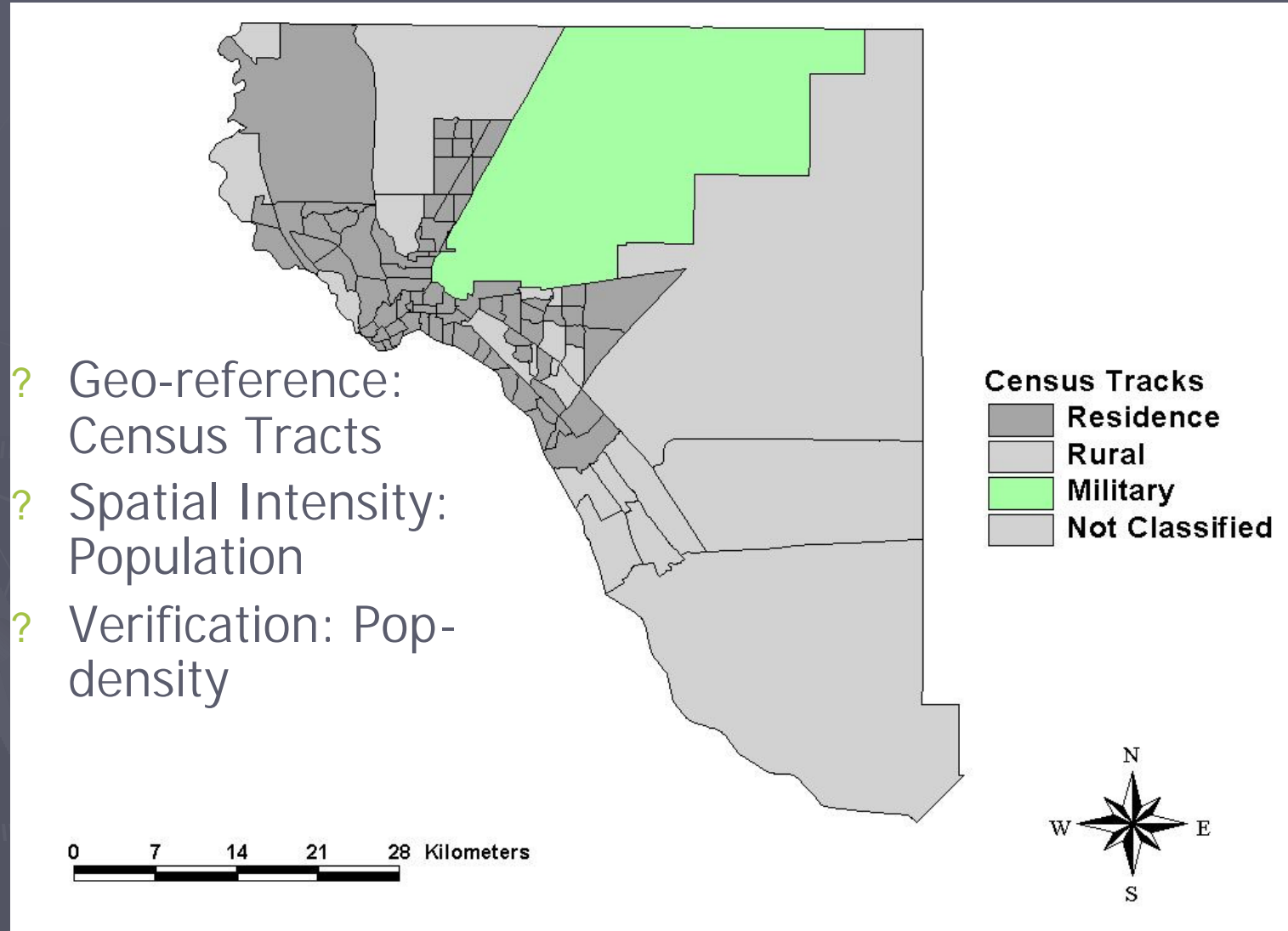
- ? Geo-reference:  
Zoning Coverage
  - High Geographical Resolution
- ? Spatial Intensity:  
Area
- ? Verification:  
Potential Sources

0 10 20 30 40 Kilometers

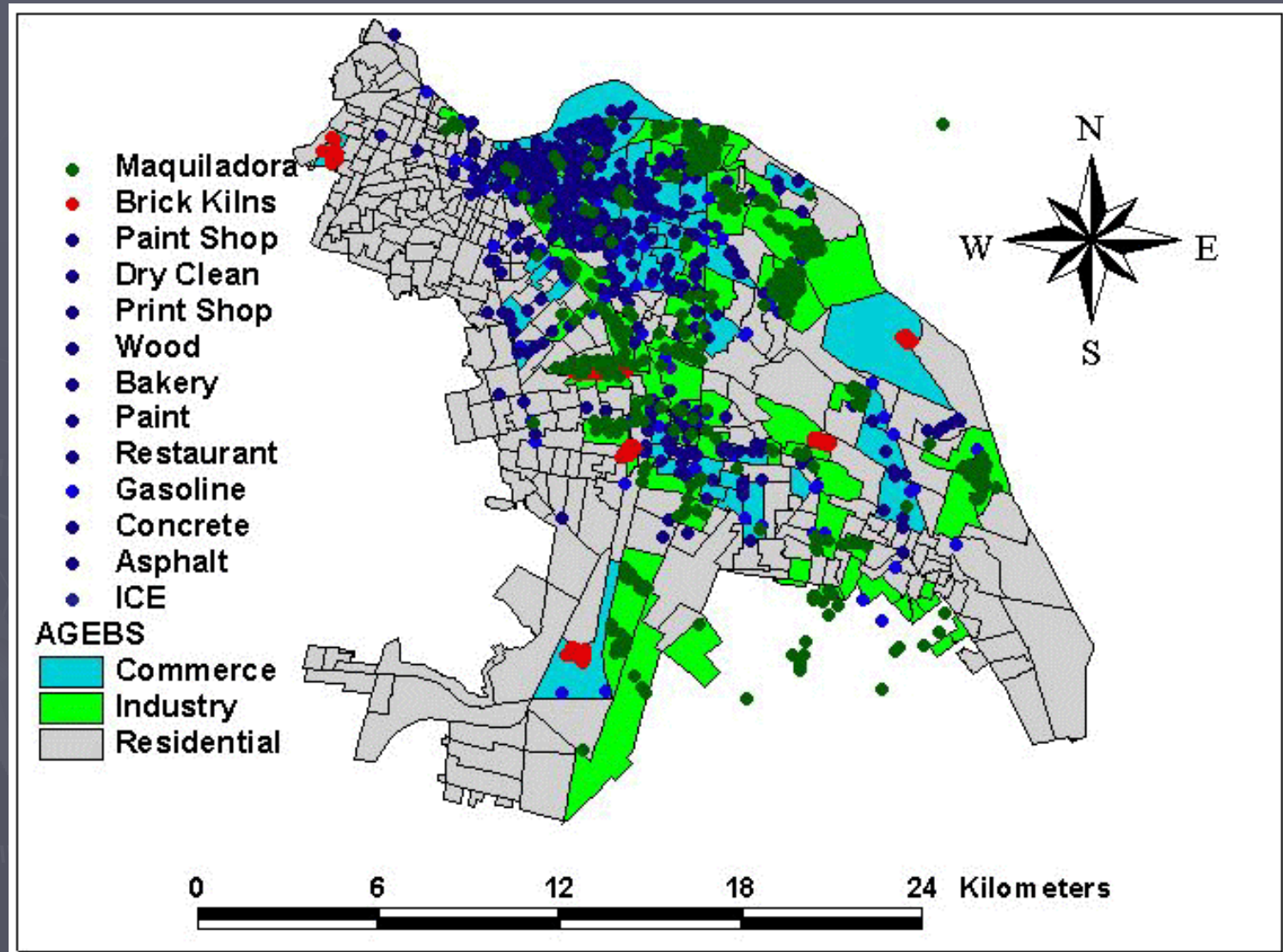




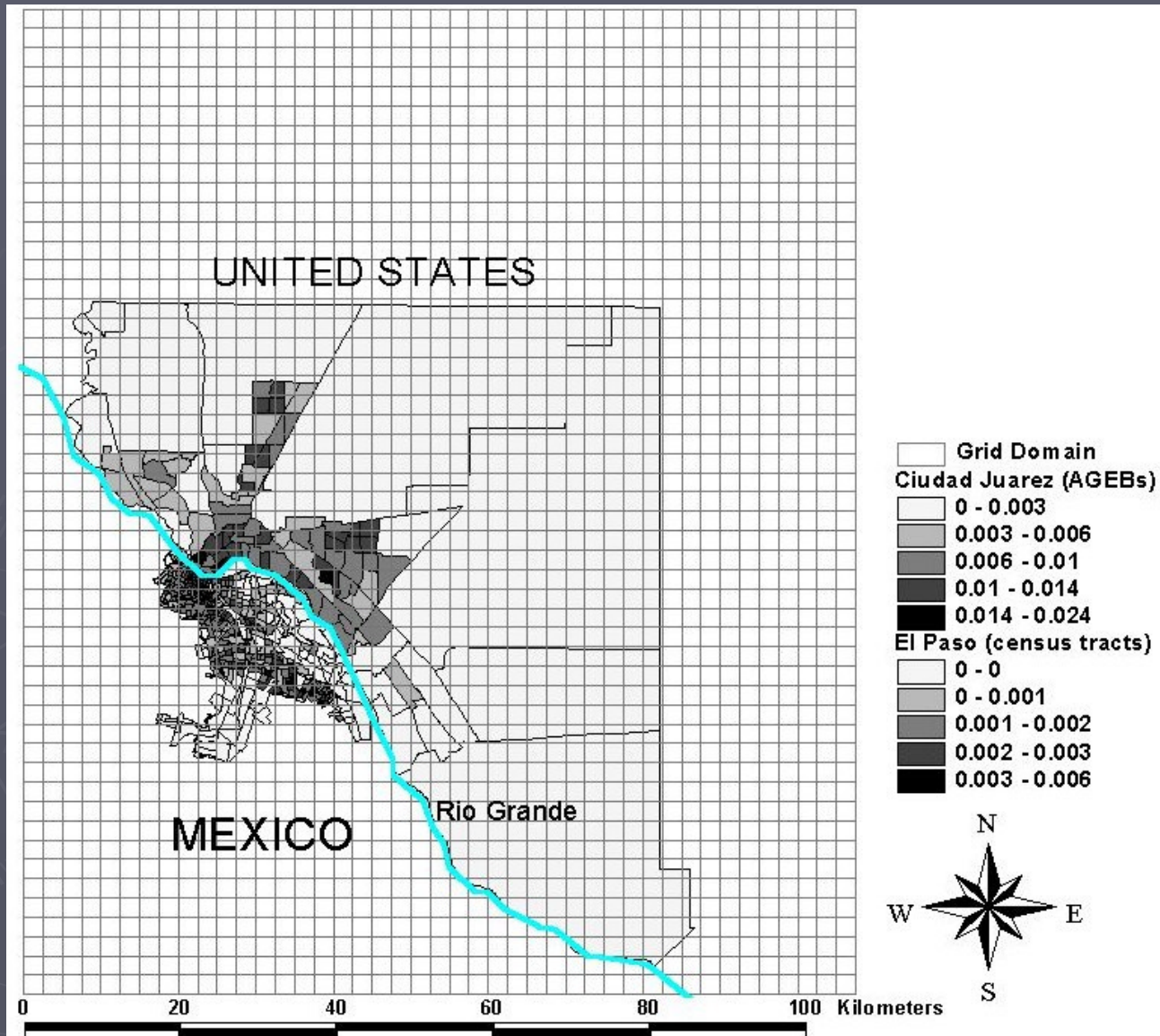
# El Paso Residential



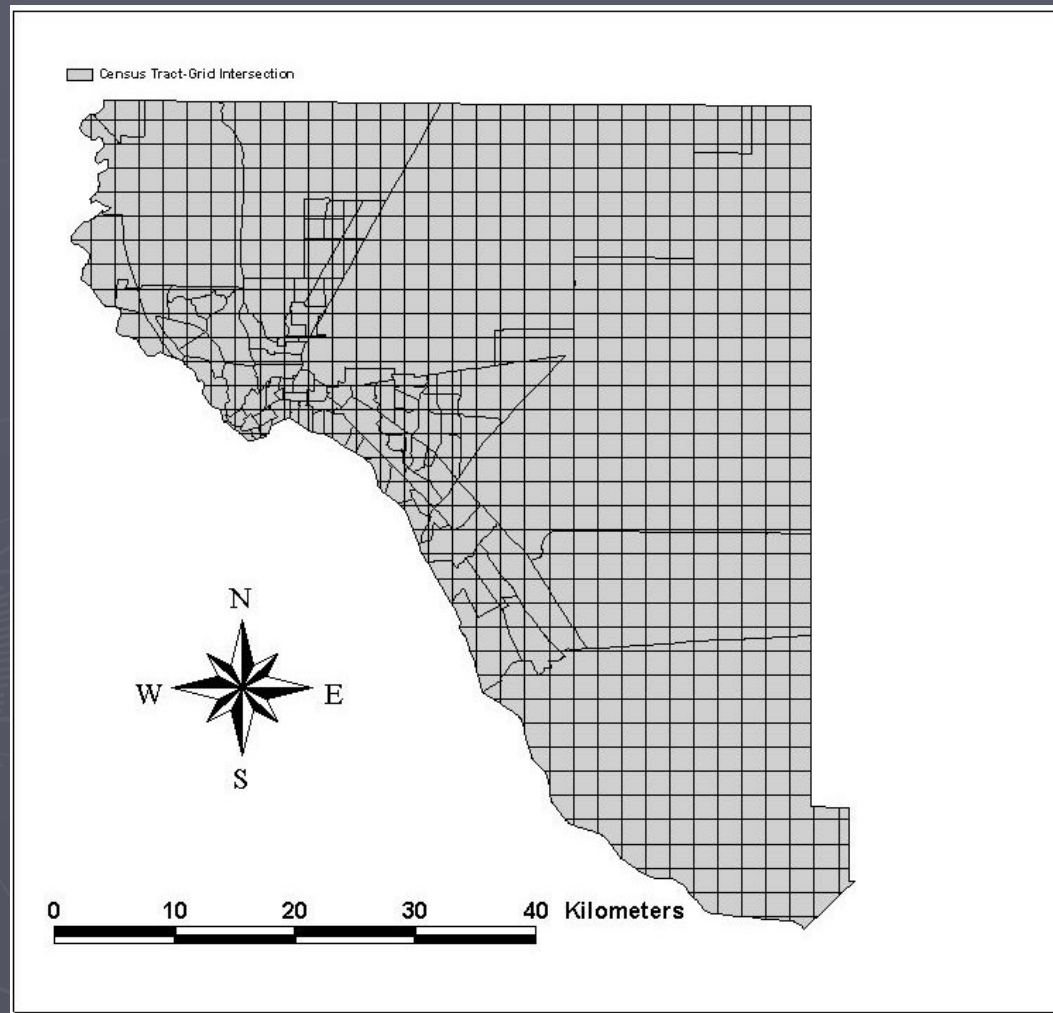
# Ciudad Juarez



# Grid Development

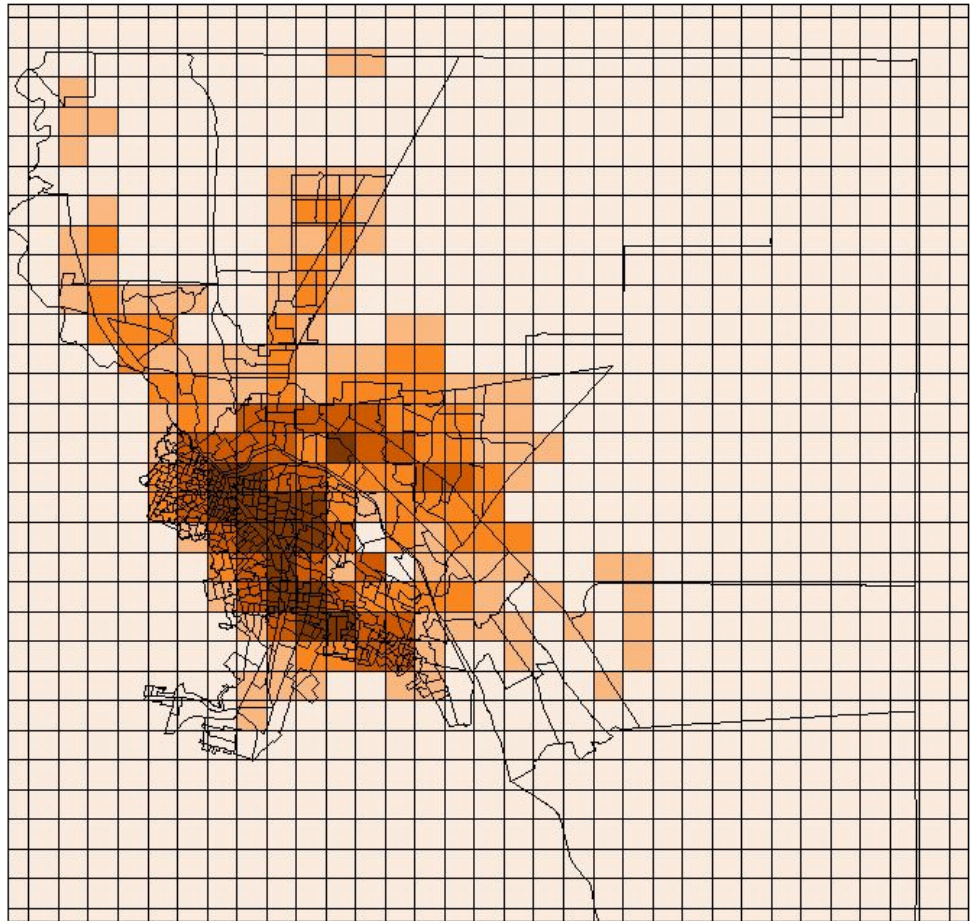
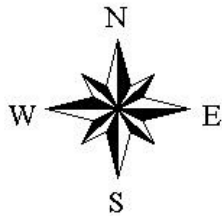
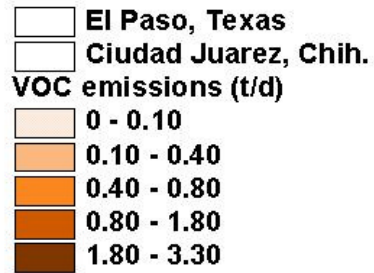


# Areal Weighting



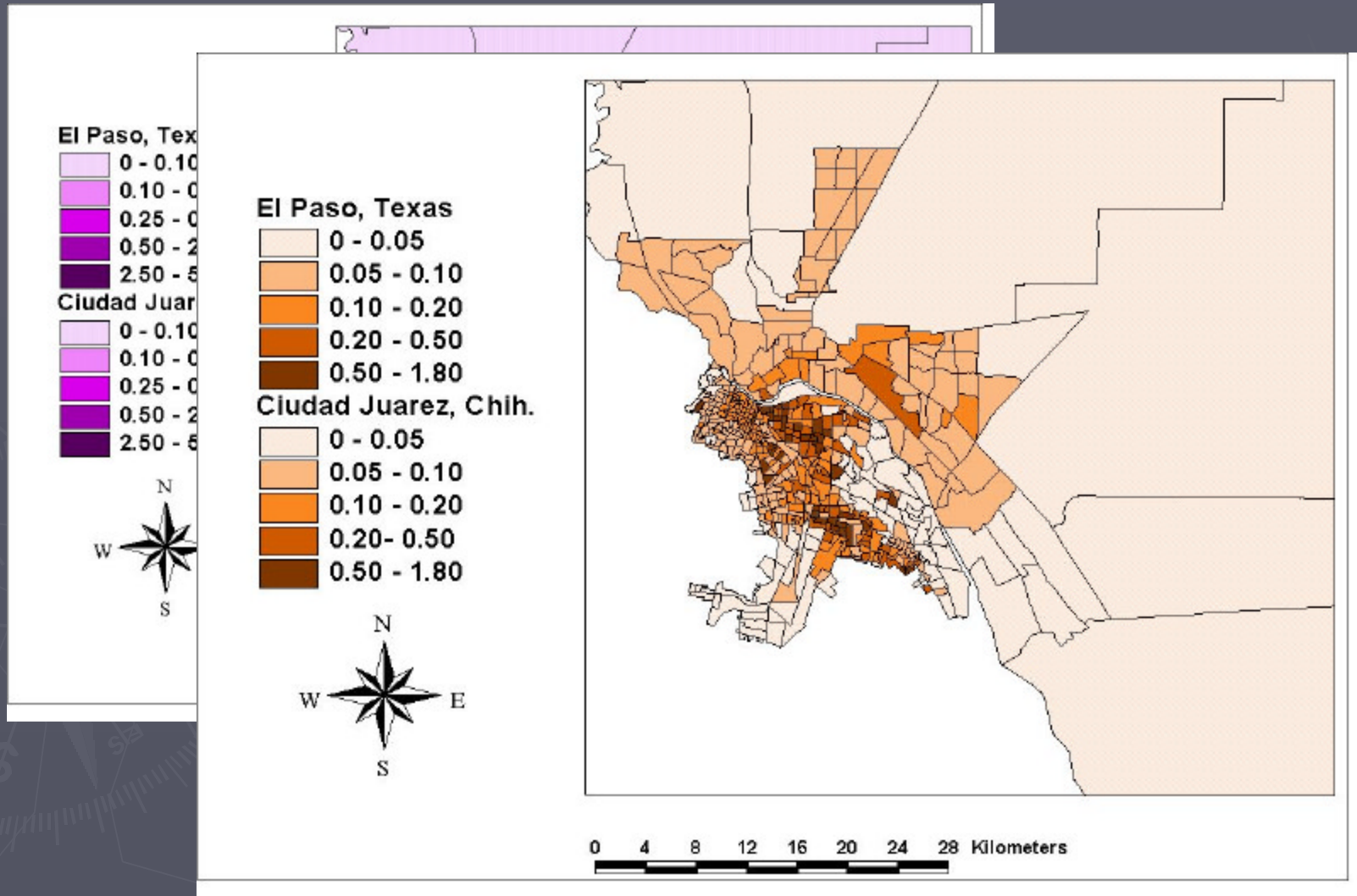


# Gridded Results



0 4 8 12 16 20 24 28 Kilometers

# Census Tract-AGEB





Thank You!

Acknowledgements:

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Juarez IMIP

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