



PIEDMONT ATLANTIC MEGAREGION

Catherine L. Ross, Ph.D. : Second Annual Policy Roundtable on MegaRegional Development : February 2006

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Why MegaRegions?



Transportation, the economy, and air quality

Atlanta in 2003:

- 11th most congested area
- traffic congestion cost of \$1.8 billion
- 15 bad air days

The issues are
related

SOURCE: Texas Transportation Institute, U.S. EPA

Why MegaRegions?

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The Atlanta Journal-Constitution

Sunday, August 1, 2004

ajc.com

Georgia, Alabama can't reach river deal

Water dispute likely headed back to court

By STACY SHELTON

Another truce in Georgia's interstate water wars ended at midnight, this one over the water flowing from Lake Allatoona into Alabama.

The dispute will likely return to federal court, where a judge could decide how much water each state is due from the northwest Georgia lake and the Coosa, Talla-poosa and Alabama rivers. It could also wind up in the U.S. Supreme Court.

Harold Melton, executive counsel for Gov. Sonny Perdue, said he tried to assure Alabama officials that Georgia was willing to "manage water wisely."

Melton said Georgia was open to compromise. "We offered all kinds of things to help get them there," he said.

But Alabama officials didn't see it that way.

"It's an extremely disappointing night," said Alabama's chief negotiator, Onis "Trey" Glenn III. "Alabama had to make a choice not to sacrifice our water future just to satisfy Atlanta's water needs."

The outcome could determine each state's ability to add jobs and continue growing. Alabama is also worried about keeping barge traffic moving on its portion of the rivers, and producing hydropower from its dams.

Last August, Georgia and Alabama—along with Florida—ended another truce when their talks over the Chattahoochee River expired without agreement.

Federal lawsuits were quickly reactivated and remain in progress. Florida is working on a case to take to the Supreme Court.

Negotiators for Georgia and Alabama worked feverishly in recent weeks to avoid the same fate for the Coosa River basin.

Throughout Saturday, they exchanged numerous cellphone calls and e-mails trying to salvage a water-sharing deal they'd worked on for six years.

The dispute over the Coosa River was considered easier to solve than the Chattahoochee, which involves three states and supplies most of the water for metro Atlanta.

But the renewed fight over the Chattahoochee spilled over. In its most recent proposals, Georgia wanted Alabama to let metro Atlanta take more water out of the Chattahoochee as part of the deal for the Coosa.

Georgia also wanted to be able to send Alabama less water than the guaranteed minimum amount in case of a severe drought.

Challenges are not
confined by
political boundaries

SOURCE: Atlanta Journal Constitution



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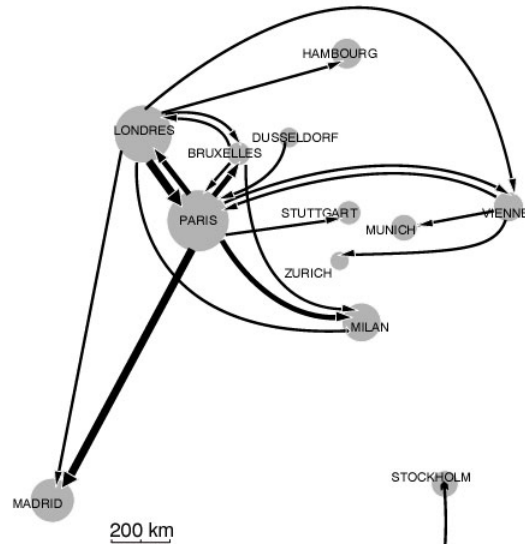
What we do today
affects future
generations

SOURCE: Centennial Olympic Park, GWCC

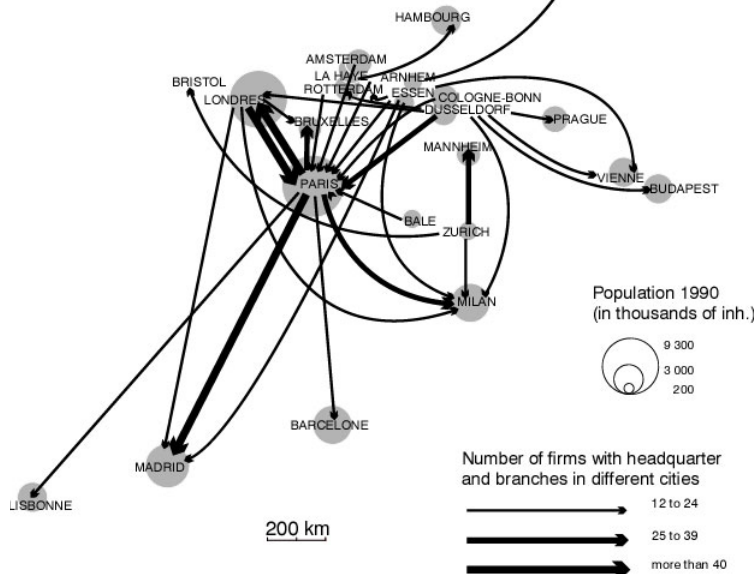
Why MegaRegions?

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1990



1996



Source: Survey 1990, 1996

@UMR E.S.P.A.C.E., Rozenblat, 1998

A New Wave of
Globalization

Private sector
increasingly
footloose

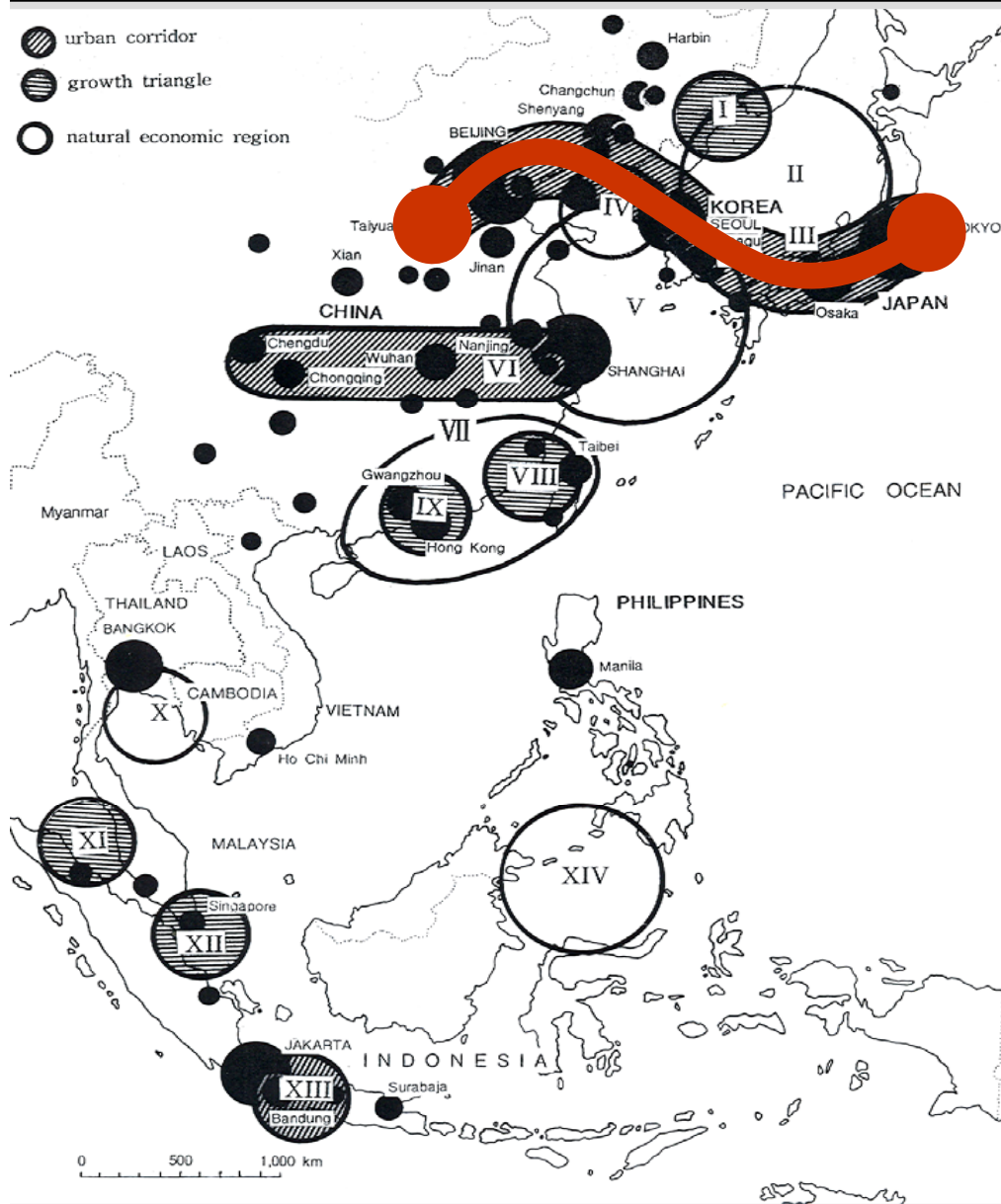
Why MegaRegions?

- **Commodity Flows:** U.S. imported almost \$2 trillion in goods and services in 2005
- **Human Capital Flows:** more than 20 percent of U.S. science and technology workers are foreign-born
- **Travel:** American made over 27 million visits outside the U.S. in 2004

A New Wave of
Globalization

Why MegaRegions?

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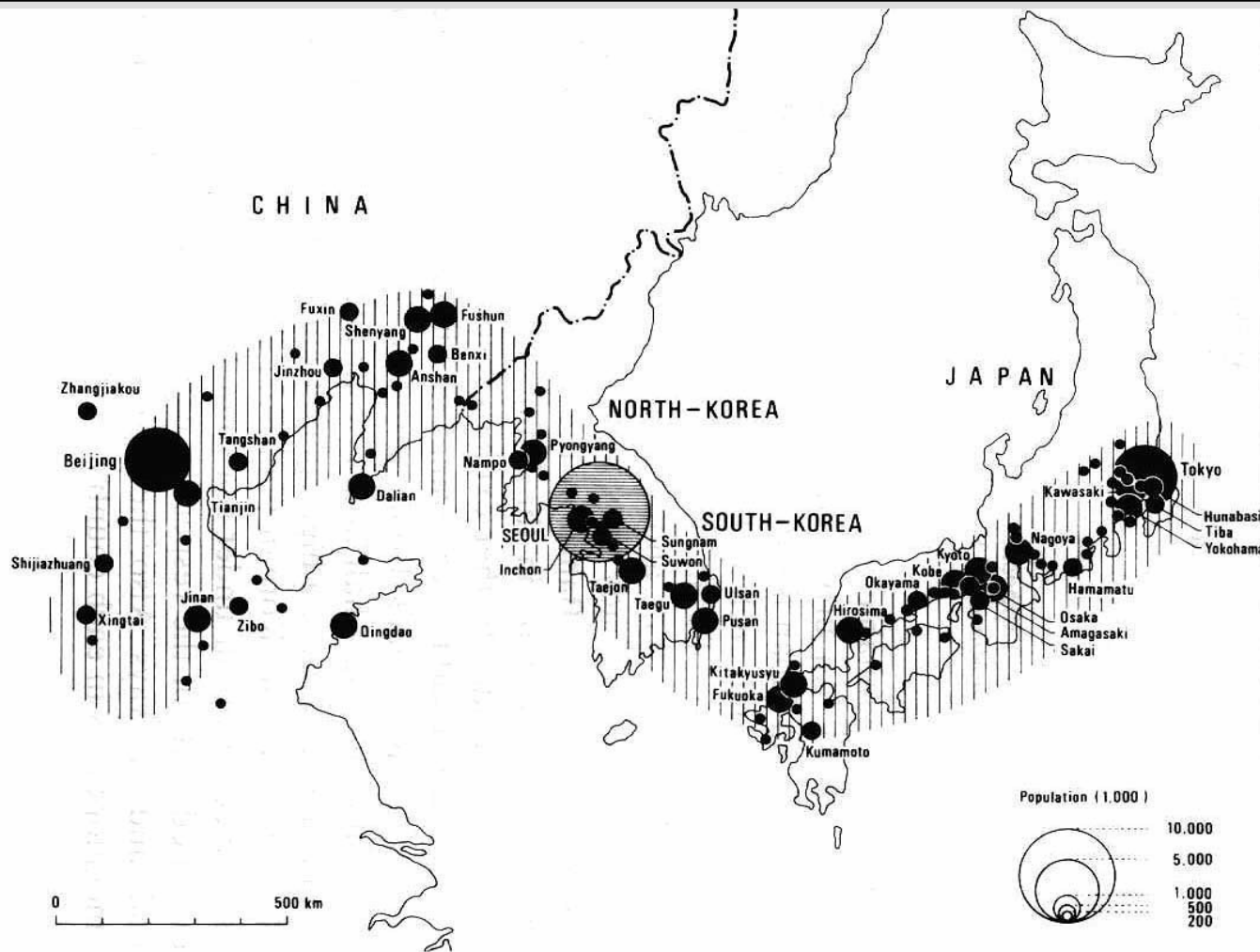


Asian urban
corridors, growth
triangles, and
natural economic
regions

SOURCE: presentation by Sang-Chuel Choe, Seoul National University, United Nations Industrial Development Organization Conference, July 2005

Why MegaRegions?

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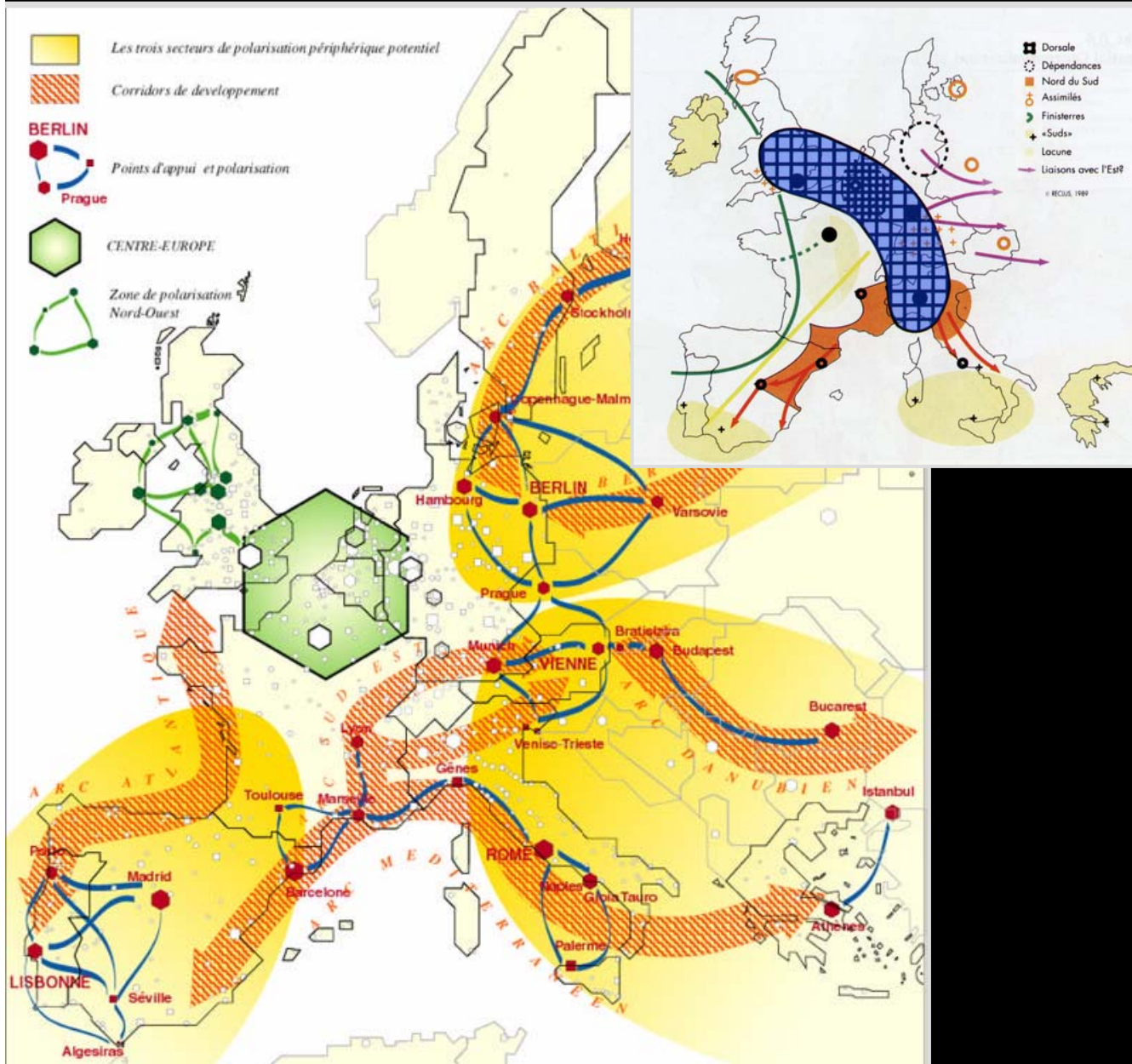
BESETO Corridor [BEijing, SEoul, TOkyo]

- 100 million inhabitants
- 112 cities each with population of over 200,000
- 900 mile strip
- 4 countries

SOURCE: presentation by Sang-Chuel Choe, Seoul National University, United Nations Industrial Development Organization Conference, July 2005

Why MegaRegions

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European Union

Spatial Corridors
of Integration
and the
“Blue Banana”

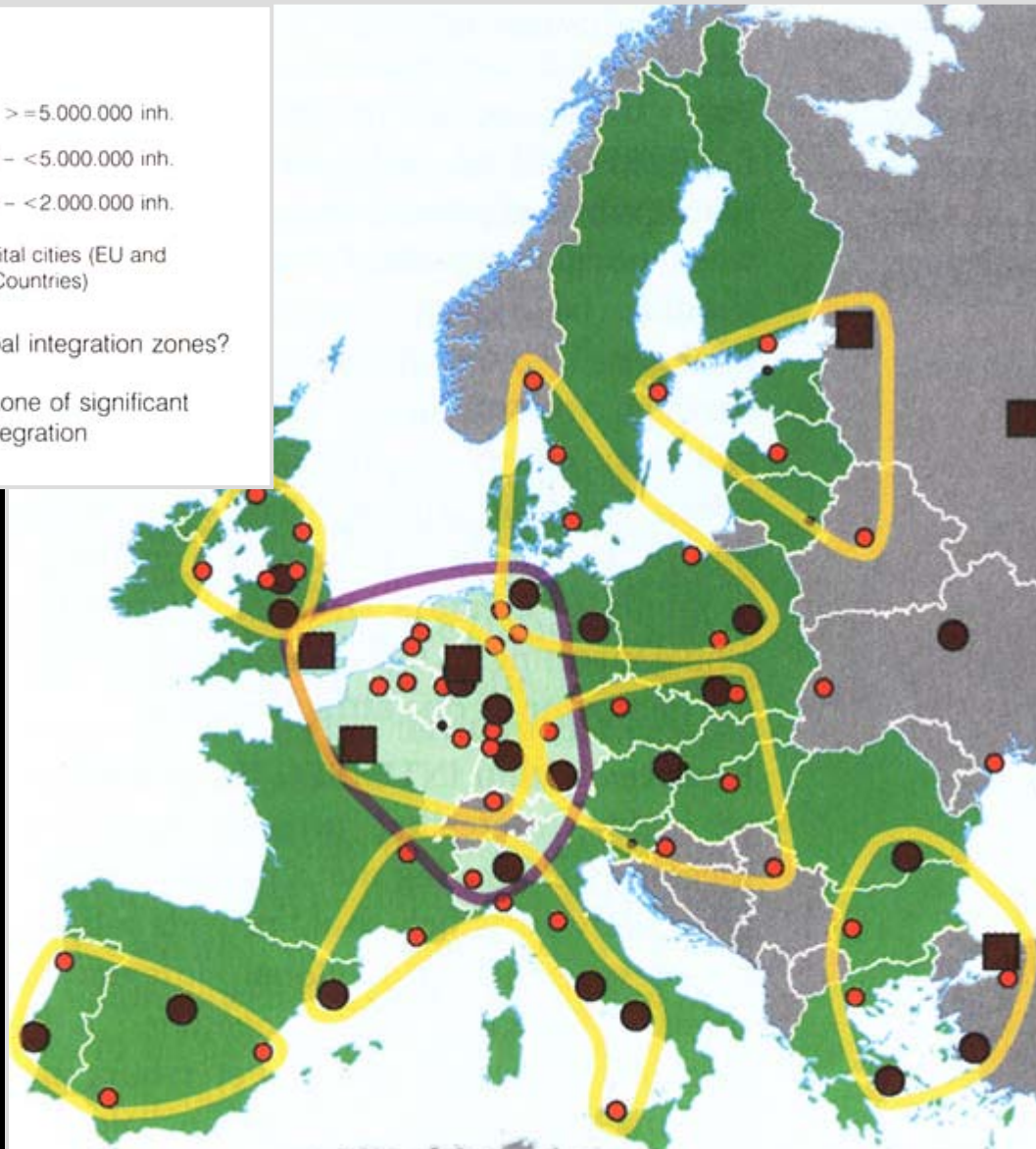
SOURCE: Ingérop, Elaboration of a long term polycentric vision of the European space, December 2000.

Why MegaRegions?

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Agglomerations

-  $\geq 5.000.000$ inh.
-  2.000.000 – $< 5.000.000$ inh.
-  750.000 – $< 2.000.000$ inh.
-  Smaller capital cities (EU and Accession Countries)
-  New global integration zones?
-  Existing zone of significant global integration

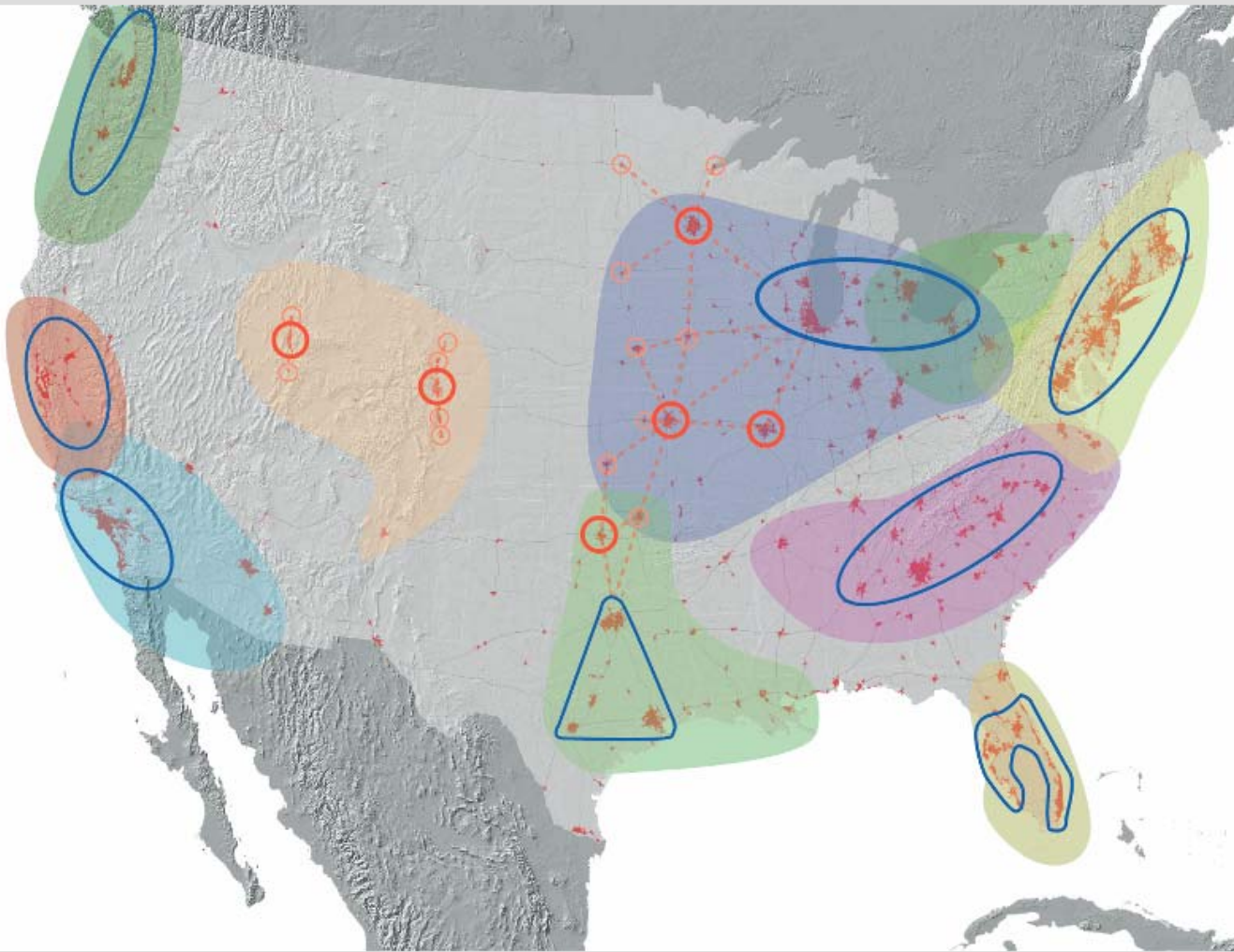


New European
zones of
metropolitan
cooperation

SOURCE: United Nations Secretariat, World Urbanization Prospects: The 1999 Revision.

Why MegaRegions?

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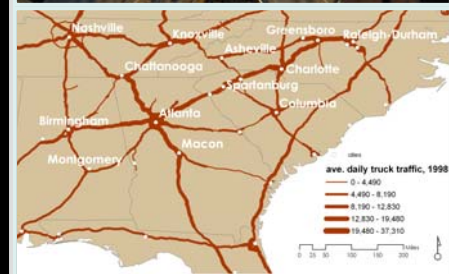


Research has
identified eight
to ten emerging
MegaRegions

SOURCE: University of Pennsylvania

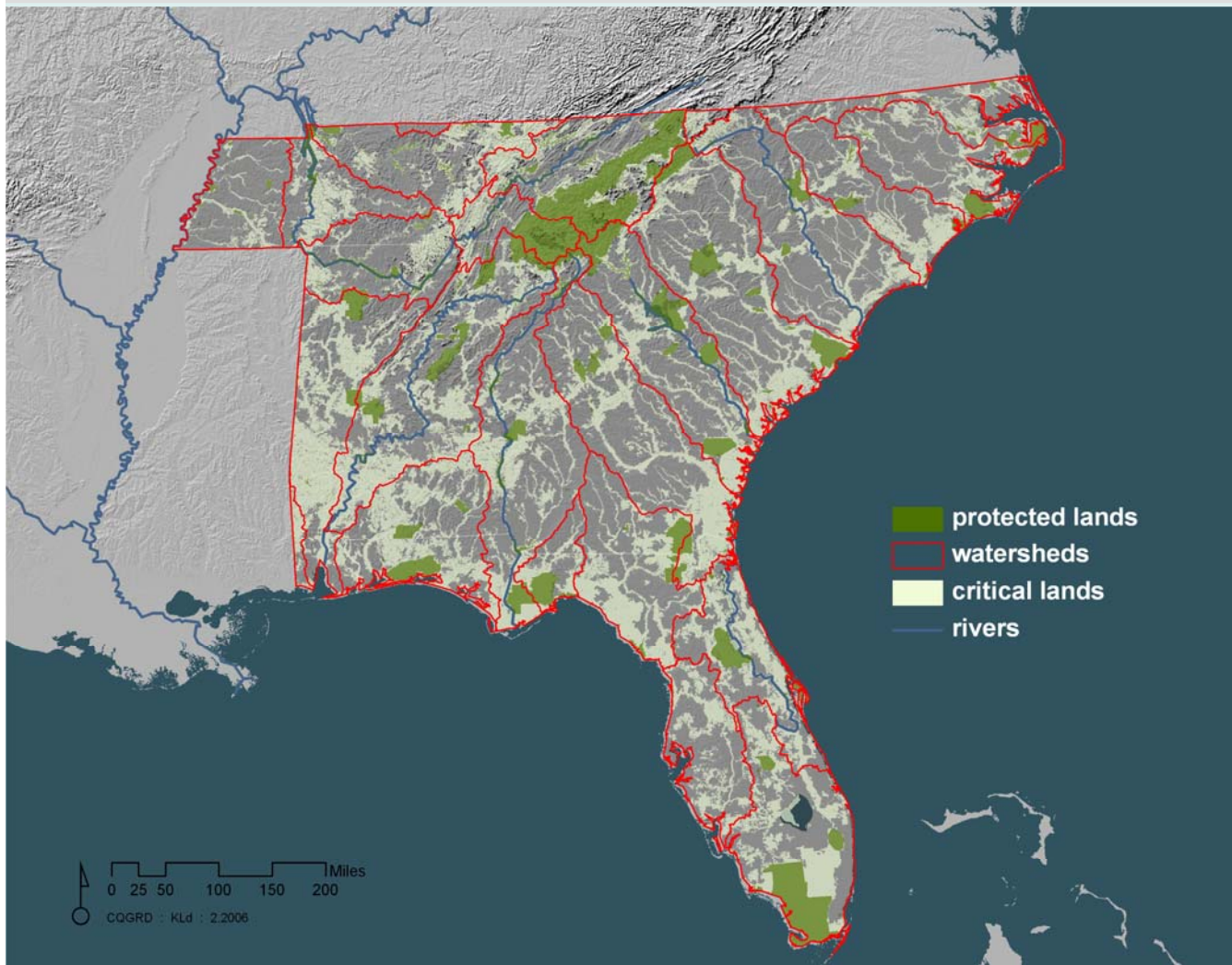
Defining the Region

- **Natural Features:** defining geography
- **Infrastructure:** investment in transportation and public facilities
- **Patterns of Mobility:** moving people, goods, information, and money



Defining the Region

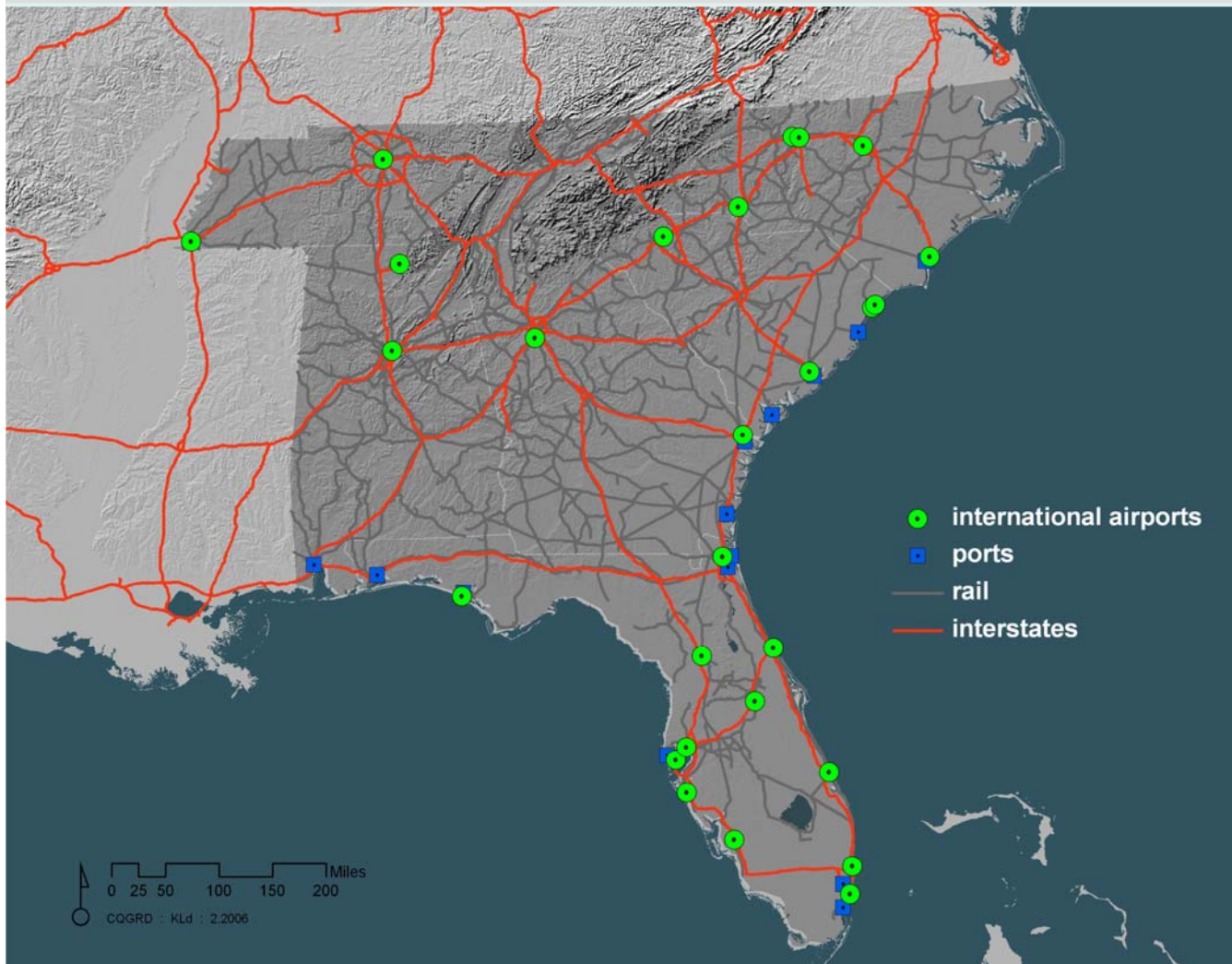
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Natural Features
the defining
geography

Defining the Region

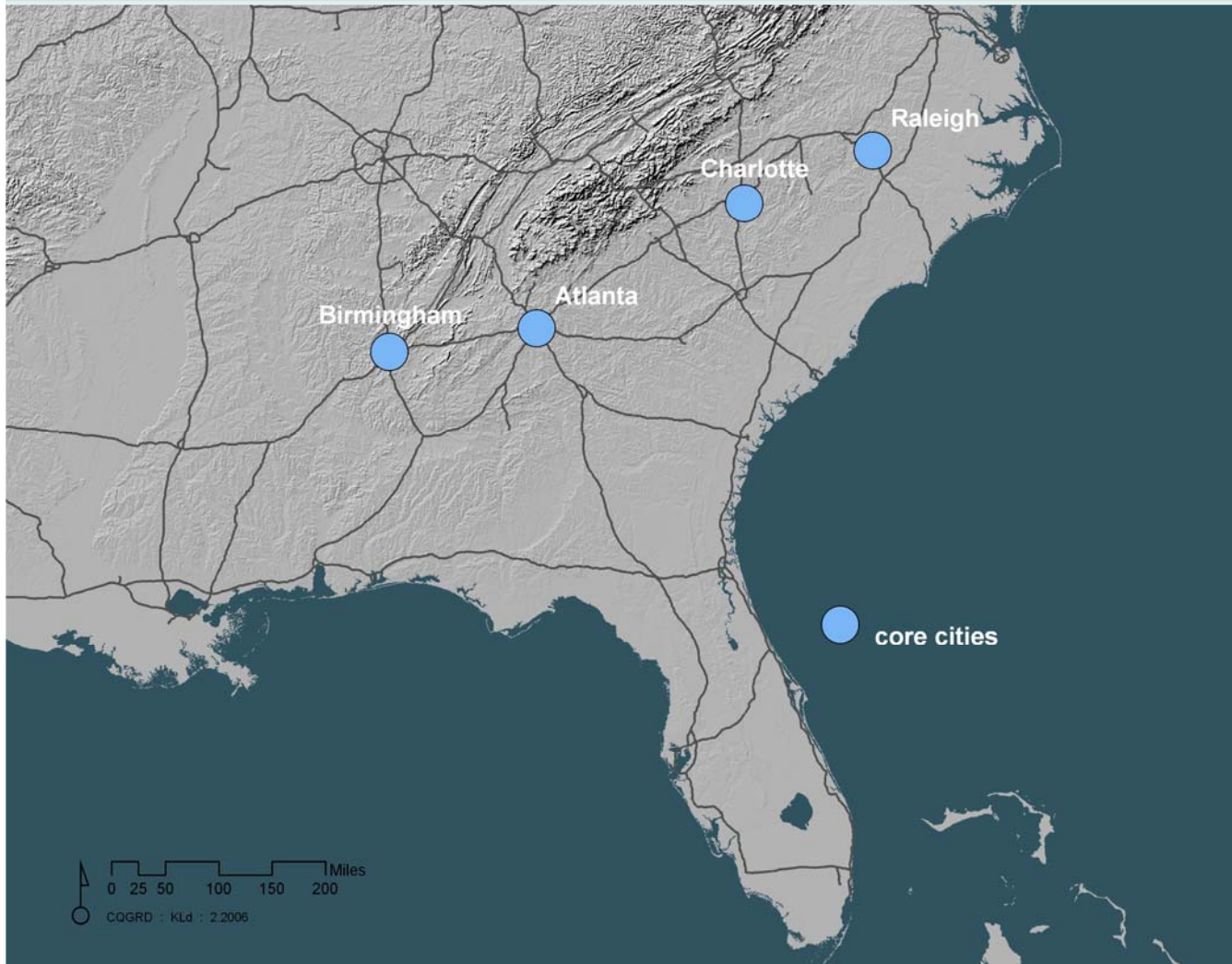
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Infrastructure
investment in
transportation
and public
facilities

Piedmont Atlantic MegaRegion

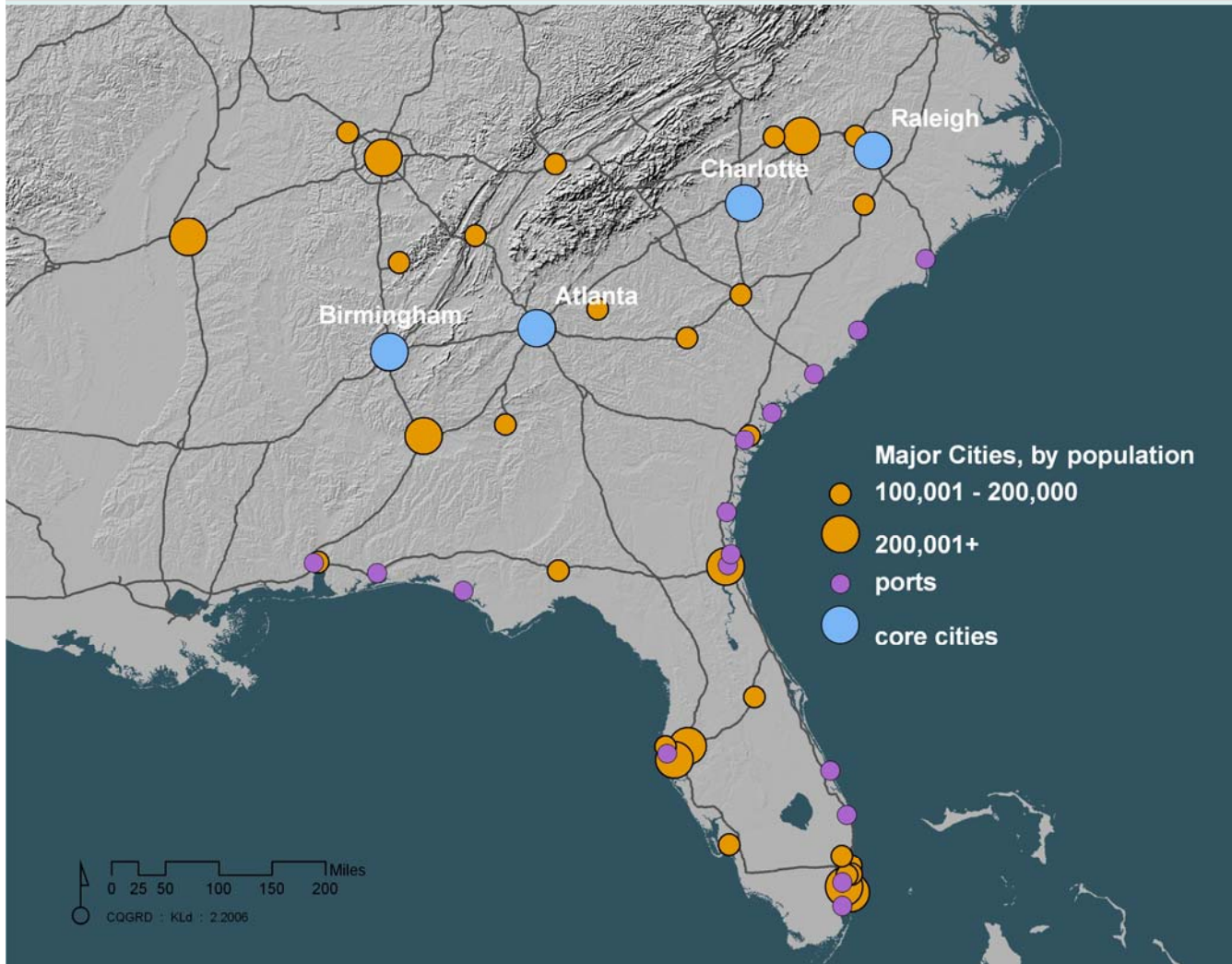
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Core cities

Piedmont Atlantic MegaRegion

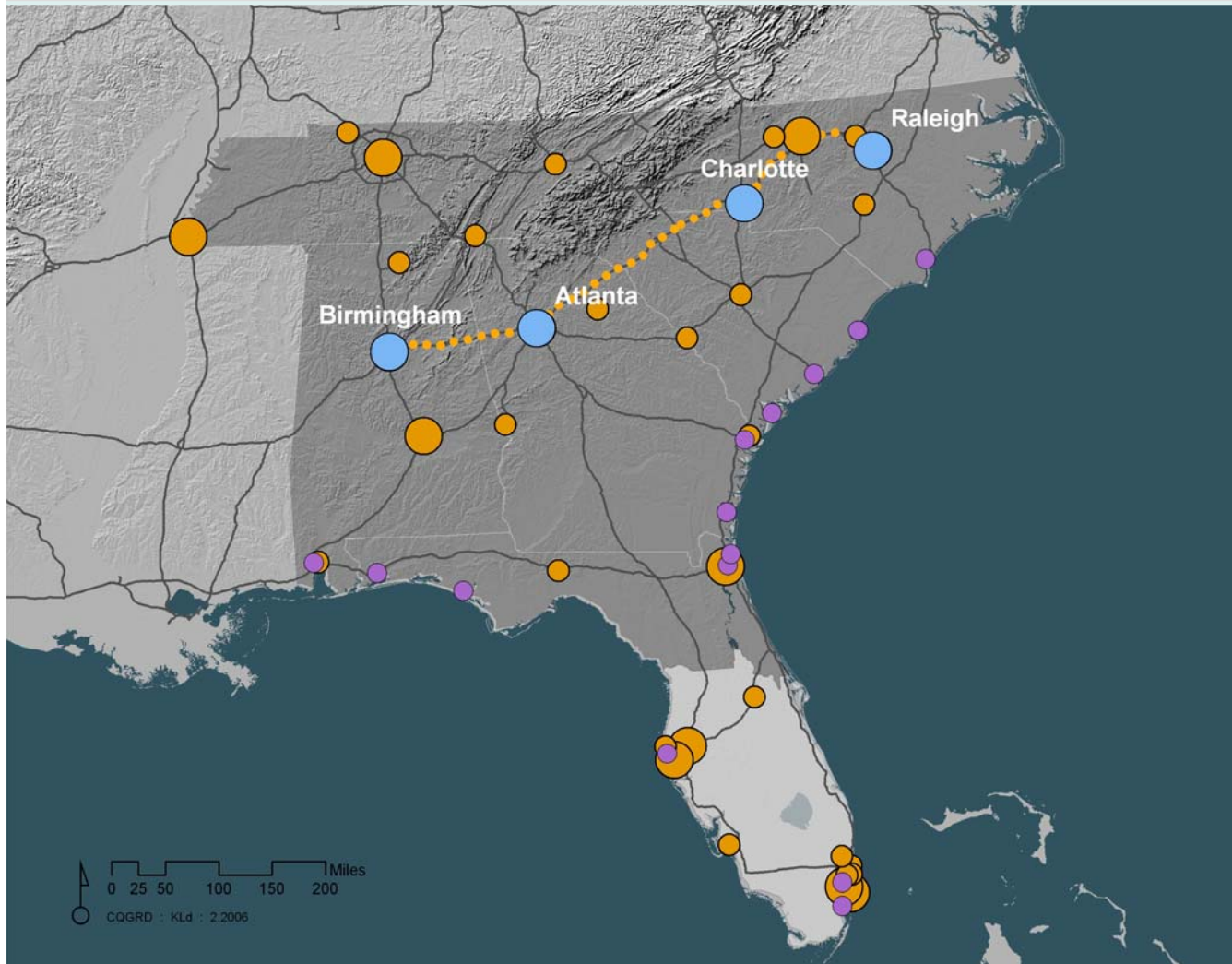
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Major cities in the spine, along the coast, and at the edges

Piedmont Atlantic MegaRegion

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The Piedmont
Atlantic
MegaRegion
(PAM)

PAM today

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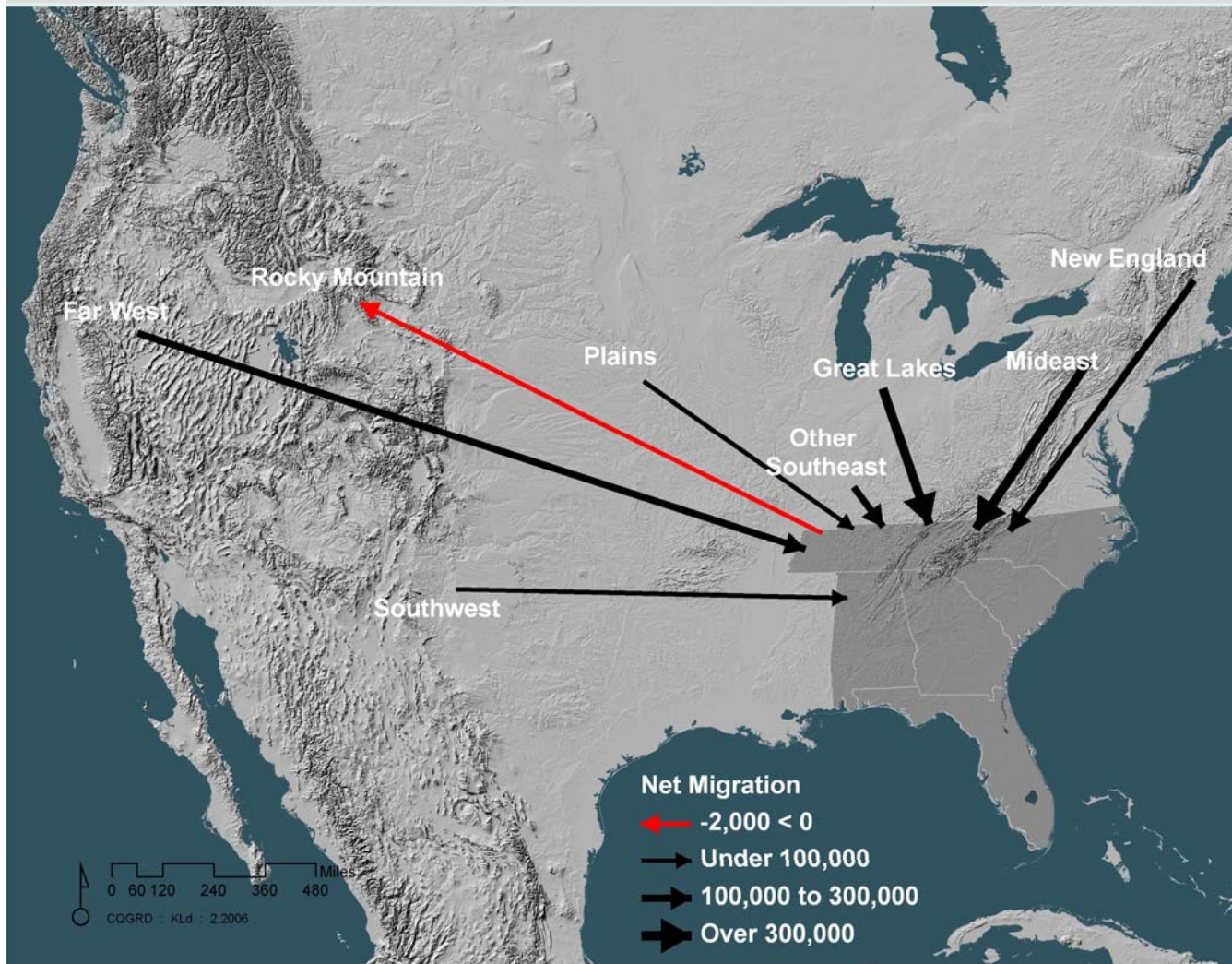
	TOTAL	% of U.S.
Land Area	282,700 square miles	8%
Population (2000)	47 million (2000)	16%
Jobs	27 million	16%
Gross Regional Product	\$1.5 trillion	15%

PAM's role in the
nation

SOURCE: U.S. Census Bureau; Woods & Poole, Inc.; Bureau of Economic Analysis; Global Insight

PAM today

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Migration trends,
1995 to 2000

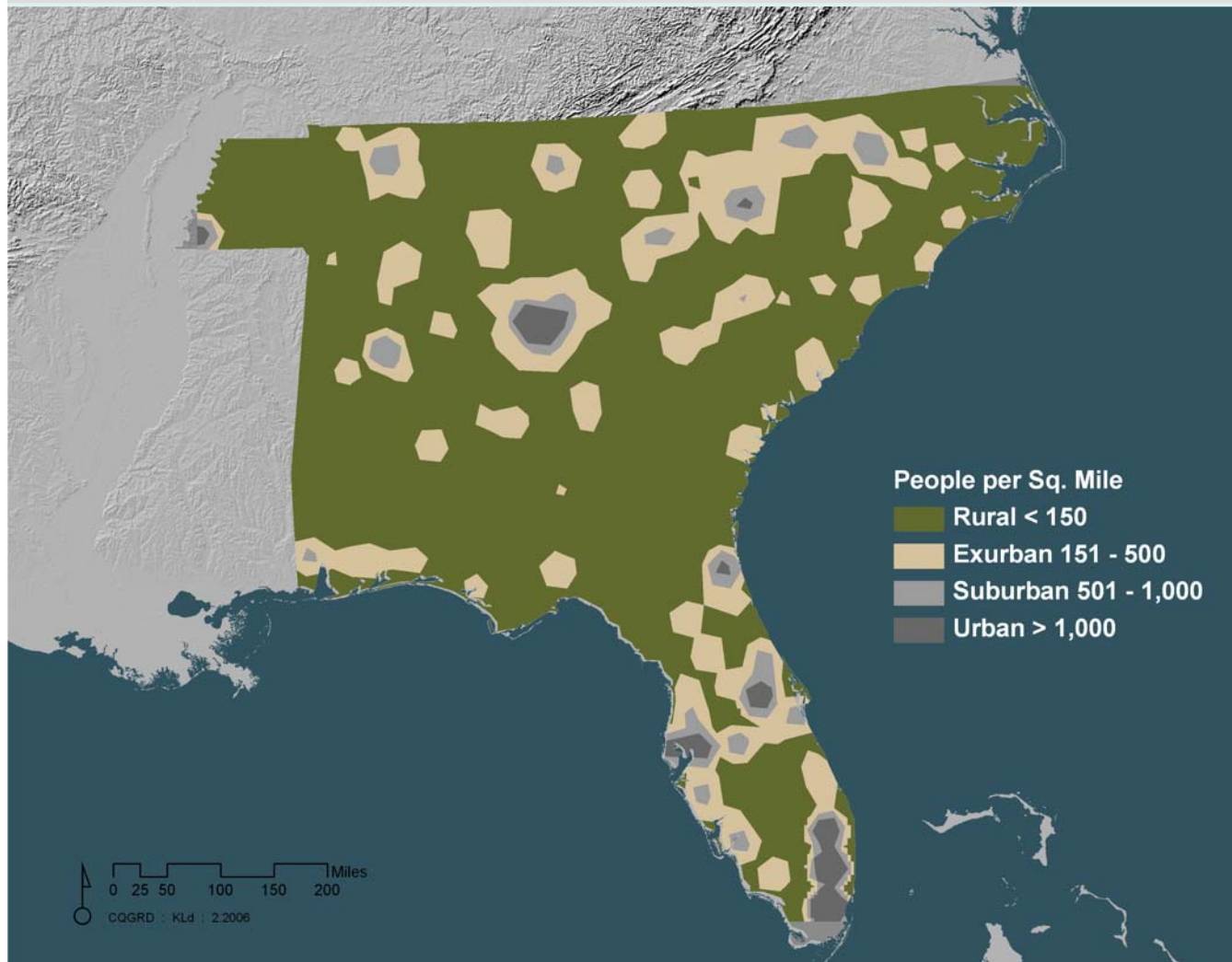
1.6 million people
moved to PAM
from the rest of
the country

1.3 million people
migrated to PAM
internationally

SOURCE: U.S. Census Bureau

PAM today

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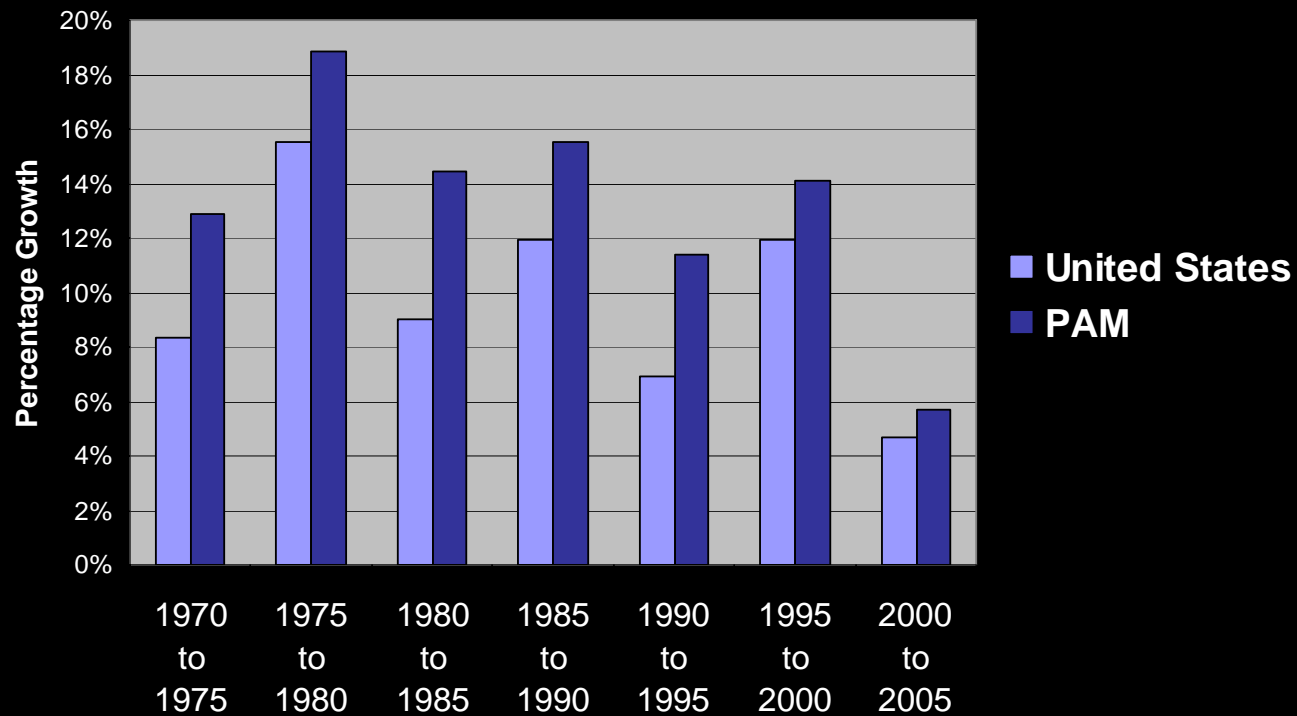


The urban,
suburban, rural
footprint

SOURCE: Woods & Poole, Inc. (2000)

PAM Today

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Job Growth, 1970 and 2005:

U.S.	91%
PAM	138%

PAM regularly
exceeding U.S. in
job growth

SOURCE: Woods & Poole, Inc.

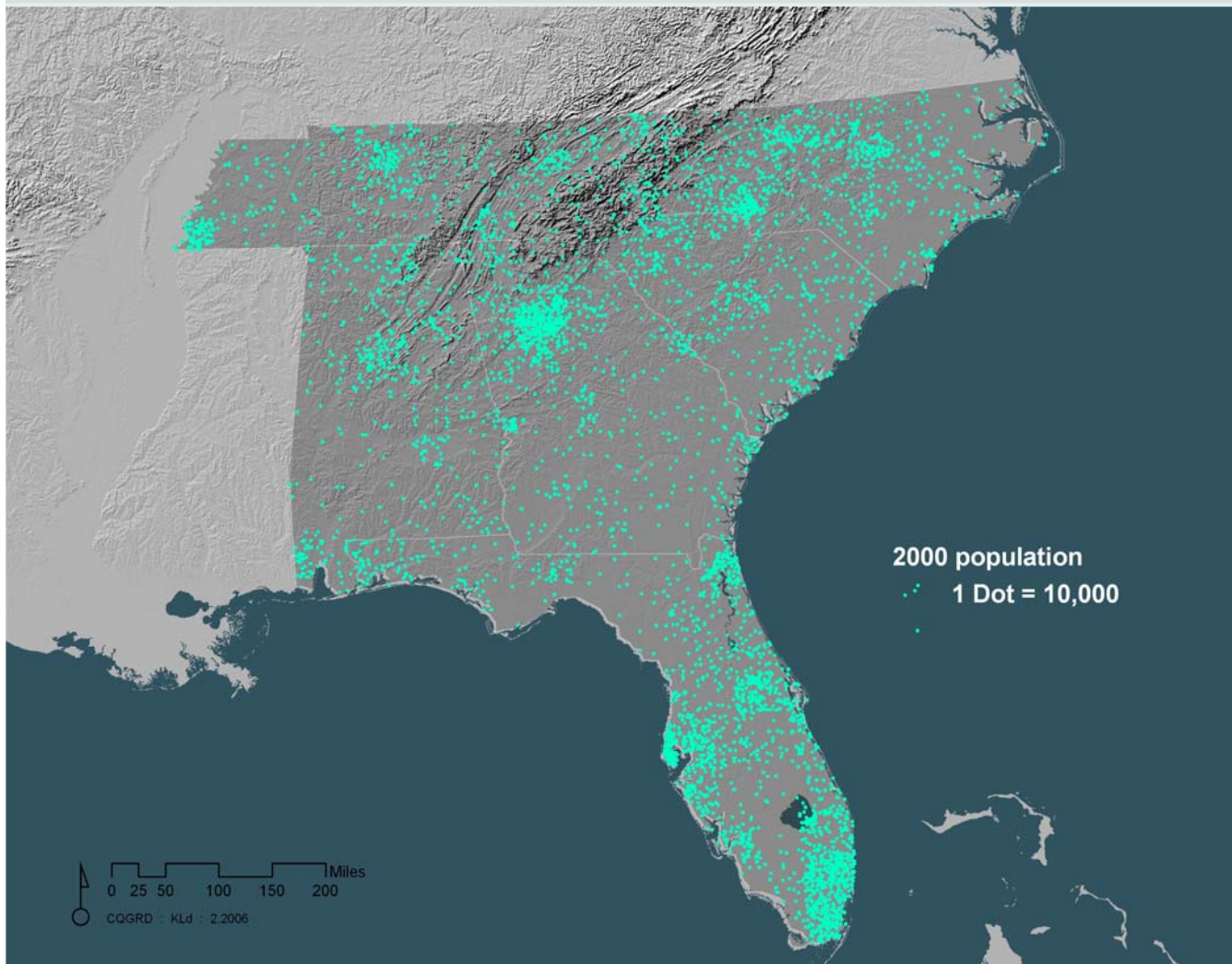
Issues Facing PAM

- **Growth**
- **Consumption and degradation**
- **Disparities**
- **Infrastructure**
- **Competiveness**
- **Fragmentation**

Every issue is a
challenge and
an opportunity

Issues Facing PAM : growth

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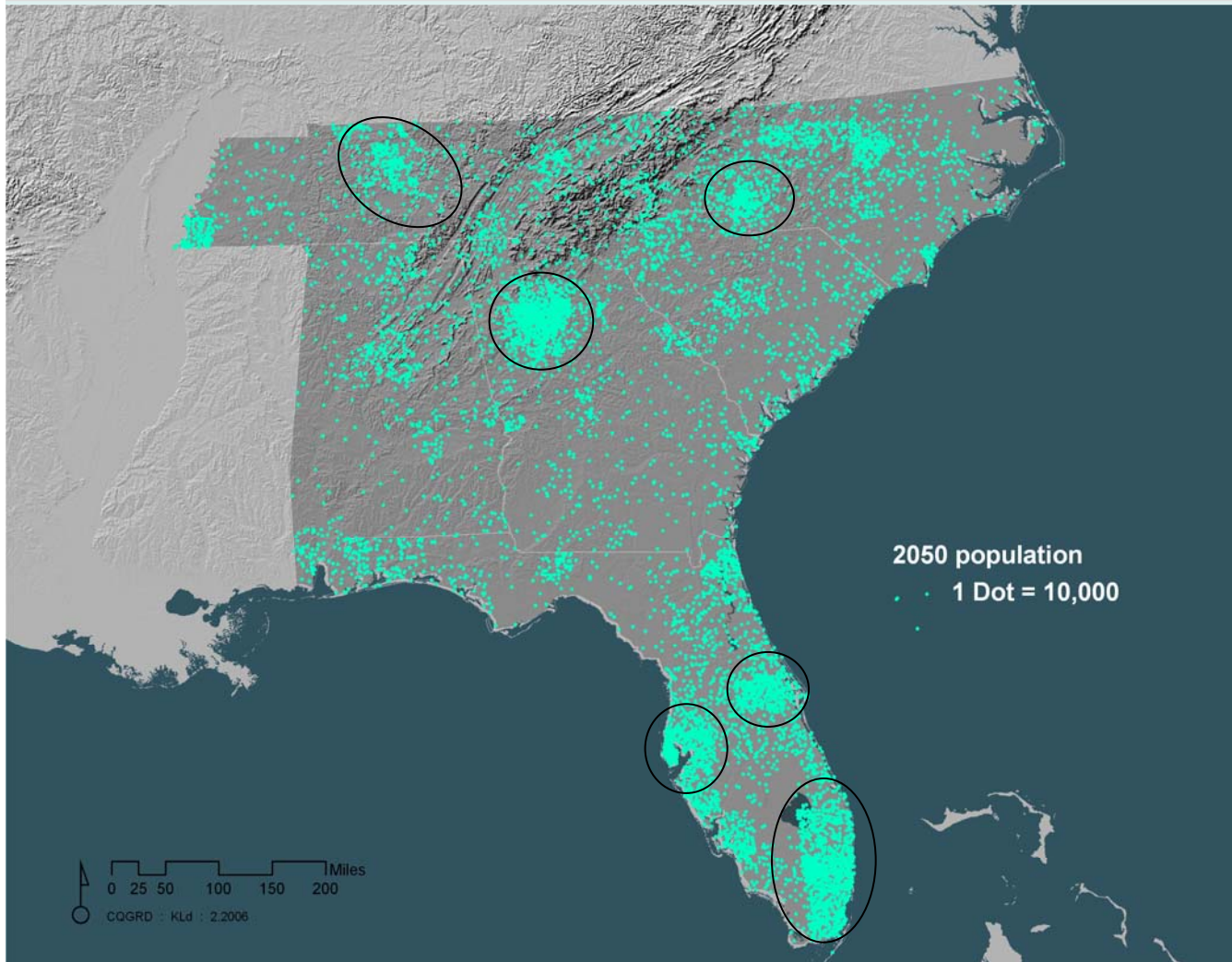
Population
concentrations, 2000

47 million people

SOURCE: Woods & Poole, Inc.

Issues Facing PAM : growth

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Population growth
centered on
centers

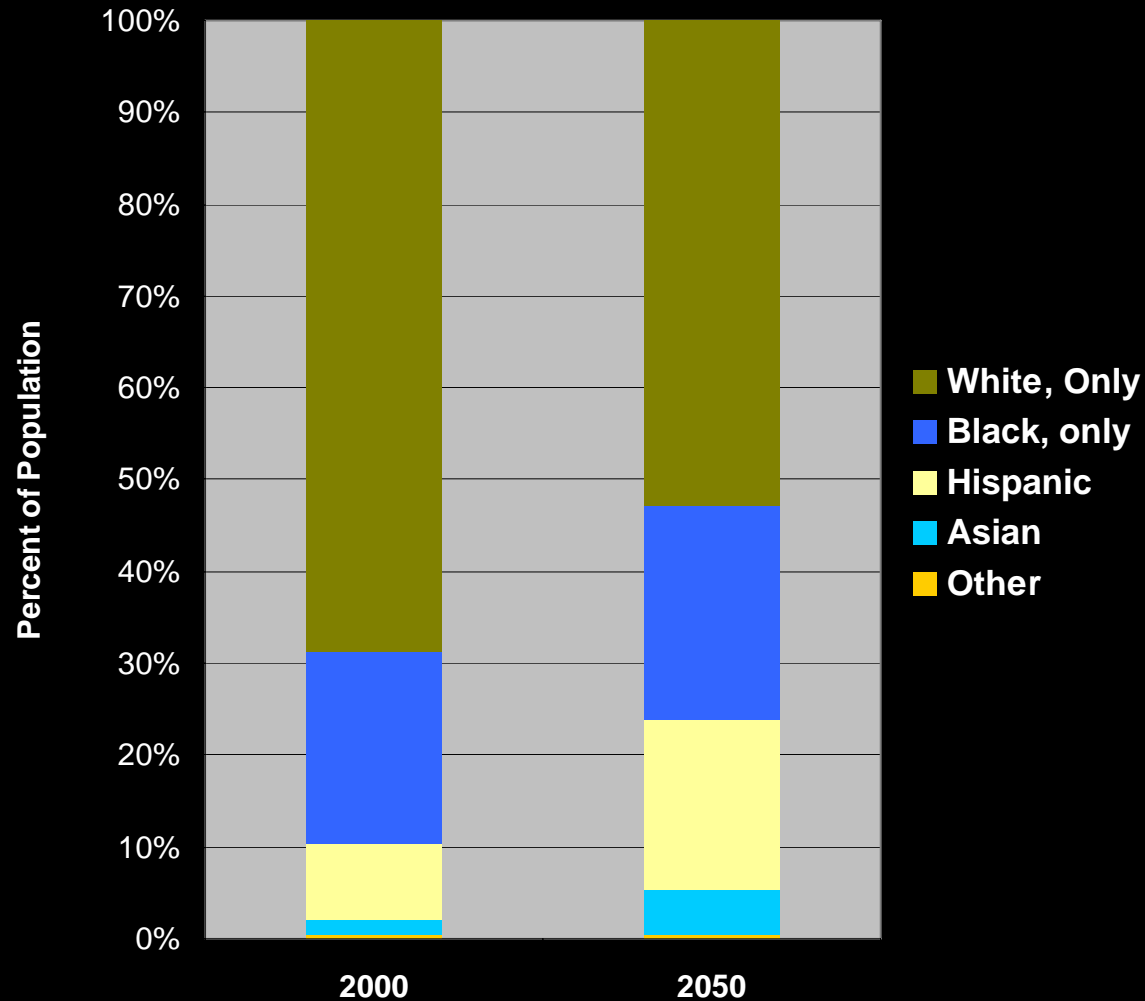
82 million people

SOURCE: Woods & Poole, Inc.; CQGRD calculations

Issues Facing PAM : growth

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Diversity Increasing, 2000-2050



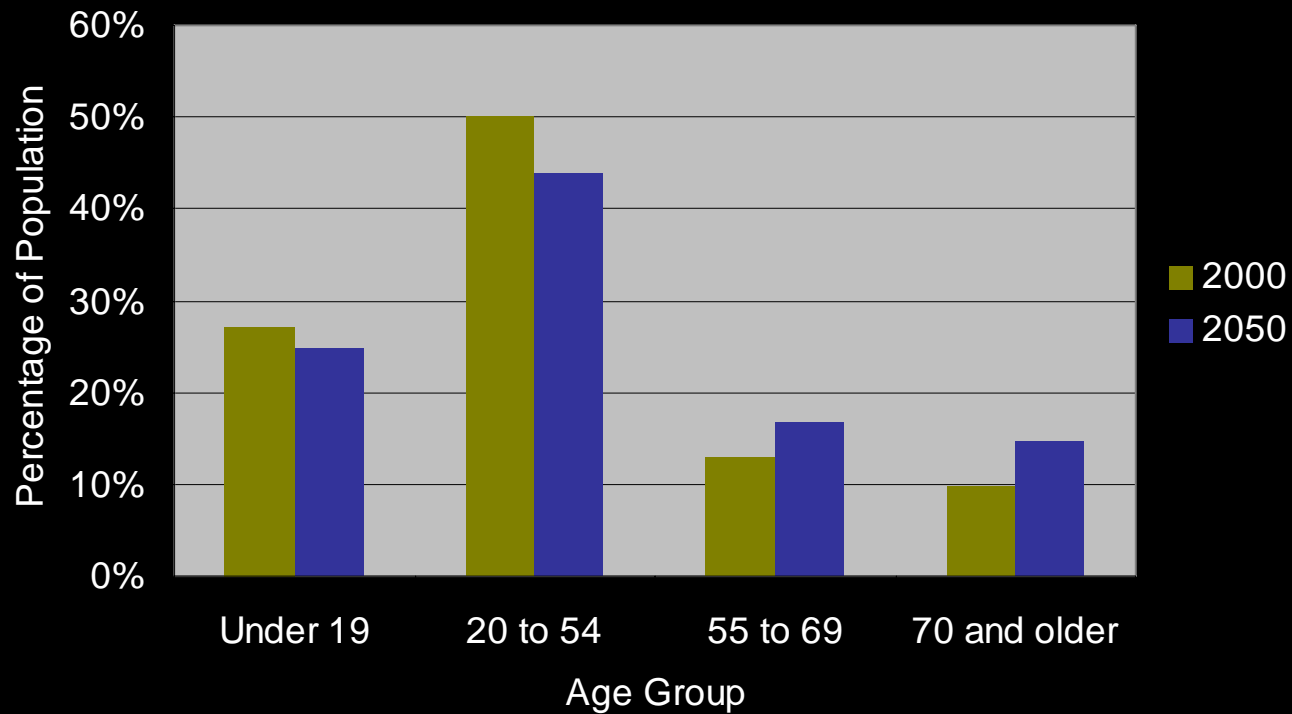
Hispanic
population growing
in PAM

SOURCE: Woods & Poole, Inc.

Issues Facing PAM : growth

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PAM is aging



12 million people
over 70 by 2050

SOURCE: Woods & Poole, Inc.

Issues Facing PAM : growth

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Population growth
means new
construction

PAM will build **84 billion square feet** of new construction between 2000 and 2030.

Source: *Toward a New Metropolis: The Opportunity to Rebuild America*, Arthur C. Nelson, Brookings Institute, 2004.

Issues Facing PAM : growth

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Buildings
constructed post-
2000 will represent
**half of the built
environment**
in 2030.

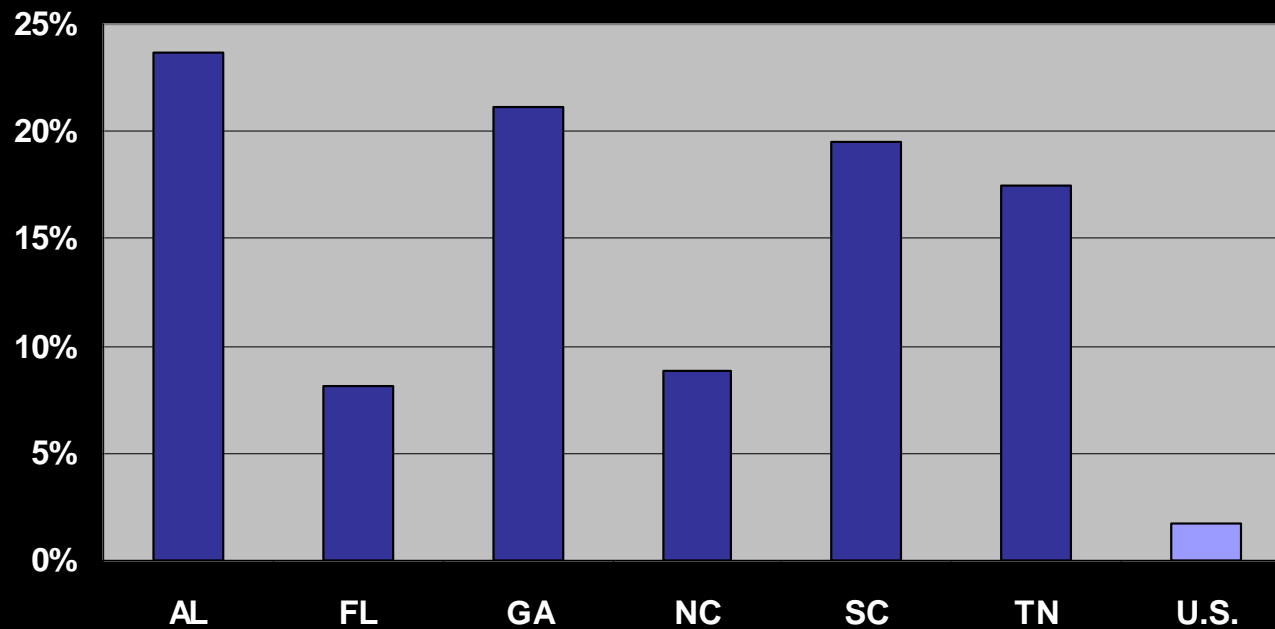


A chance to do it
right

Issues Facing PAM : consumption

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Change in Water Consumption, 1990-2000



PAM water consumption increasing faster than U.S.

SOURCE: USGS

Issues Facing PAM : consumption

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1993

SOURCE: Fulton County GIS, Georgia

Issues Facing PAM : consumption

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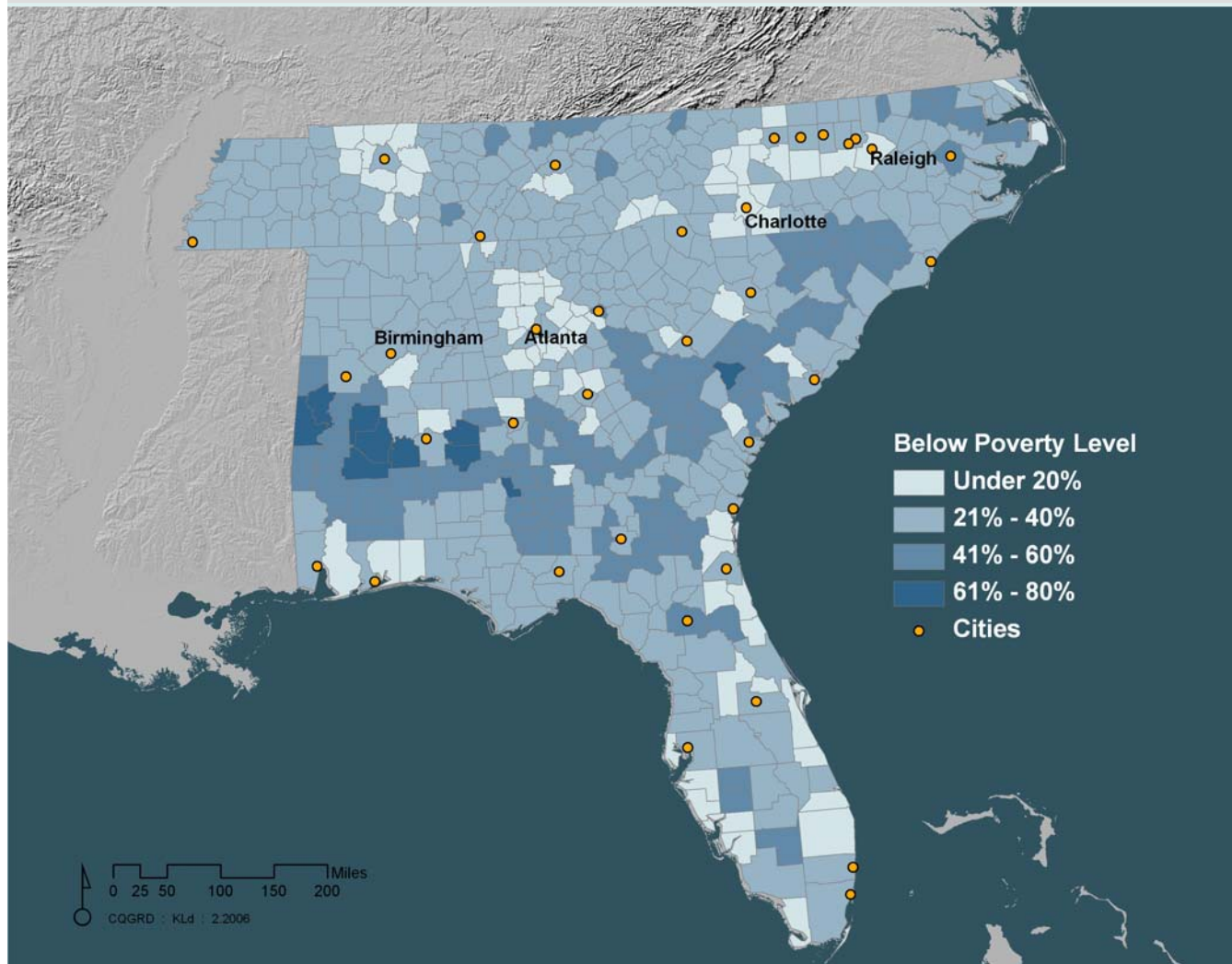
2002

Per capita land consumption in **PAM** is **0.67 acres per person**; the **U.S. average is 0.36**.

SOURCE: Fulton County GIS, Georgia; USDA Natural Resources Inventory

Issues Facing PAM : disparities

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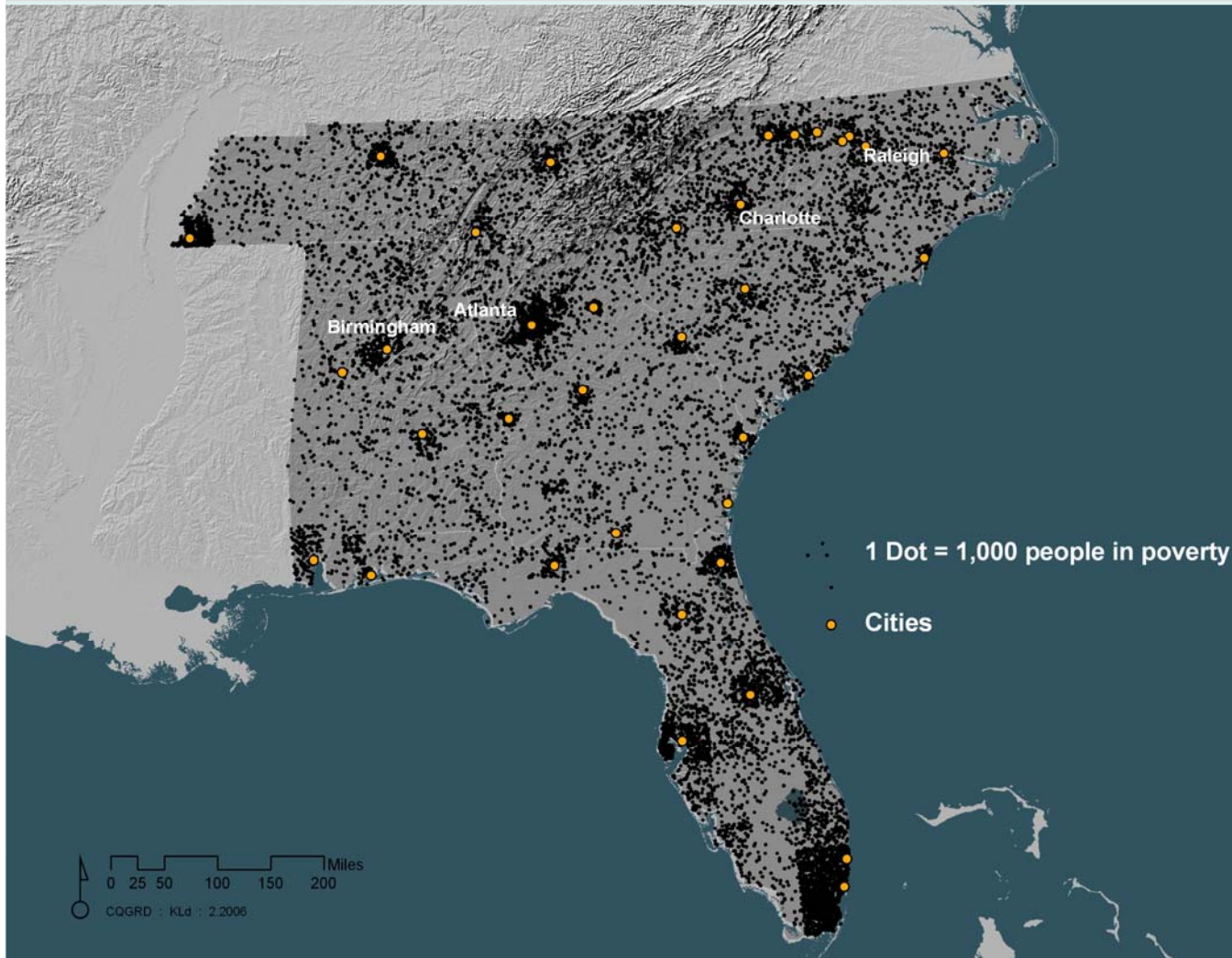


PAM faces high
rates of rural
poverty

SOURCE: U.S. Census Bureau

Issues Facing PAM : disparities

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PAM has high concentrations of poverty in metro areas

Almost **12 million people** living in poverty.

SOURCE: U.S. Census Bureau

Issues Facing PAM : disparities

- PAM states significantly **improved math scores** between 1992 and 2005
- 3 PAM states significantly **improved reading scores**
- The U.S. as a whole significantly improved both math and reading scores during the same period

A notoriously underachieving education system has made great strides, but still has much work to do

Issues Facing PAM : infrastructure

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In the four core cities the cost of traffic congestion rose from **\$716 million in 1993** to over **\$2.3 billion in 2003**.

That's a **234% increase in congestion cost** with only a **28% increase in population**.



SOURCE: Texas Transportation Institute

Issues Facing PAM : infrastructure

Over **27% of households in PAM are reliant on septic systems**, compared to 21% in the northeast, 19% in the midwest, and 12% in the west.

Septic systems are 100% consumptive, straining already stressed water resources. One house on septic consumes as much water as 6.6 homes on sewer.

Lack of infrastructure results in over consumption of natural resources

SOURCE: American Household Survey; Metro Atlanta Chamber of Commerce

Issues Facing PAM : competitiveness

For the four core cities have experienced an **annual economic growth rate of between 5.2 and 8.4%**.

Unfortunately, these economic achievements have not been shared by all of PAM.

Metro economic
growth

Issues Facing PAM : competitiveness

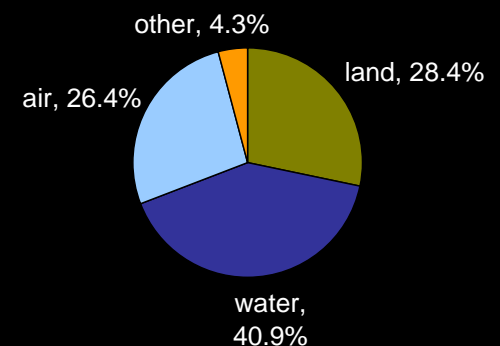
PAM has **four of the top 25 U.S. Foreign Trade Freight Gateways** (by value) with a combined total of over **\$123 billion in trade**.

Charleston is the second busiest container port on the East and Gulf coasts, handling 1.2 million TEUs (twenty-foot equivalent units) in 2003. The Port of **Savannah** handled 1.1 million TEUs and is one of the fastest growing containers ports in the country. The other top gateways are the **Miami** and **Atlanta** Airports.

SOURCE: US Department of Transportation, Bureau of Transportation Statistics

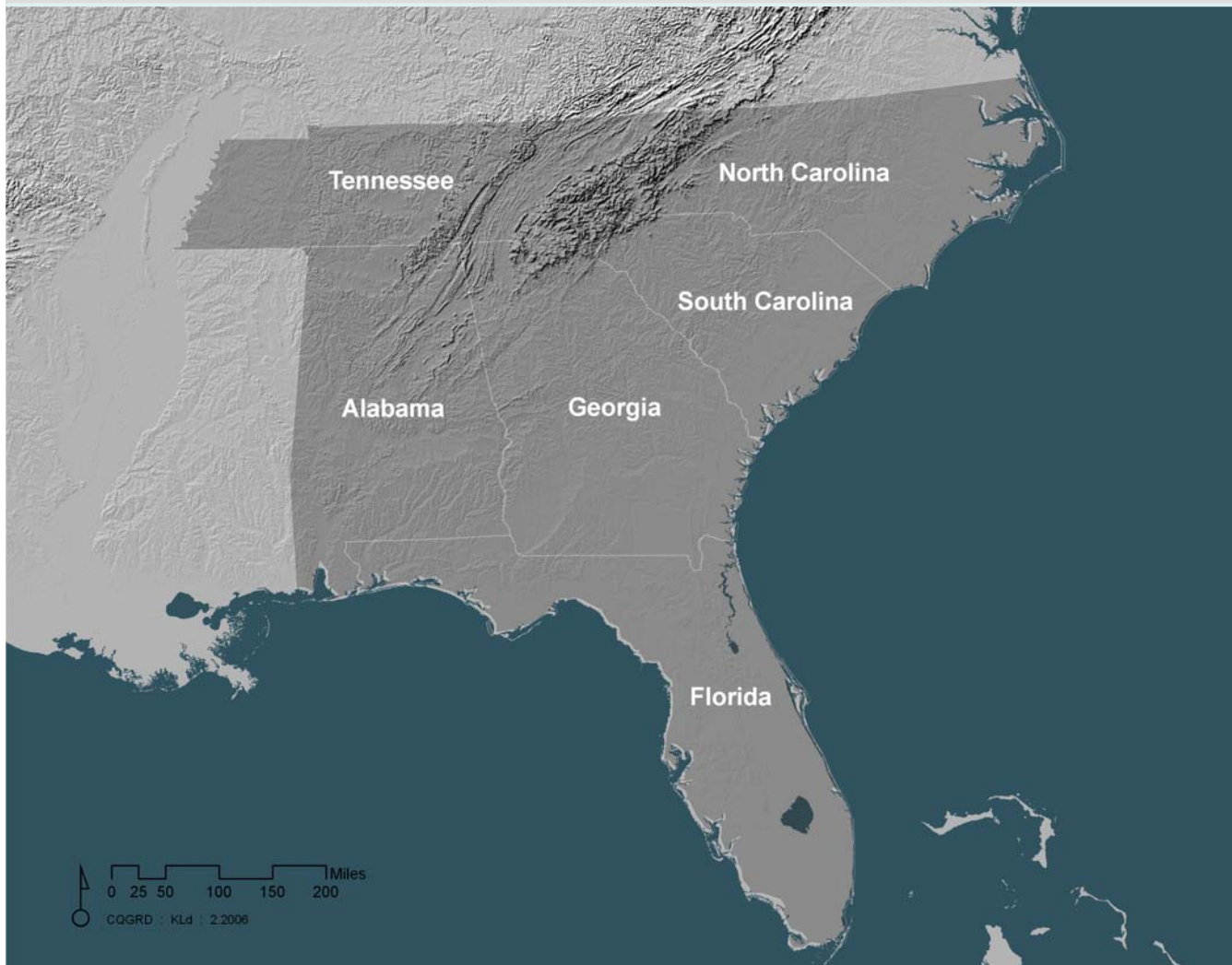
Gateways to
the world

Mode Share for Trade (by value)



Issues Facing PAM : fragmentation

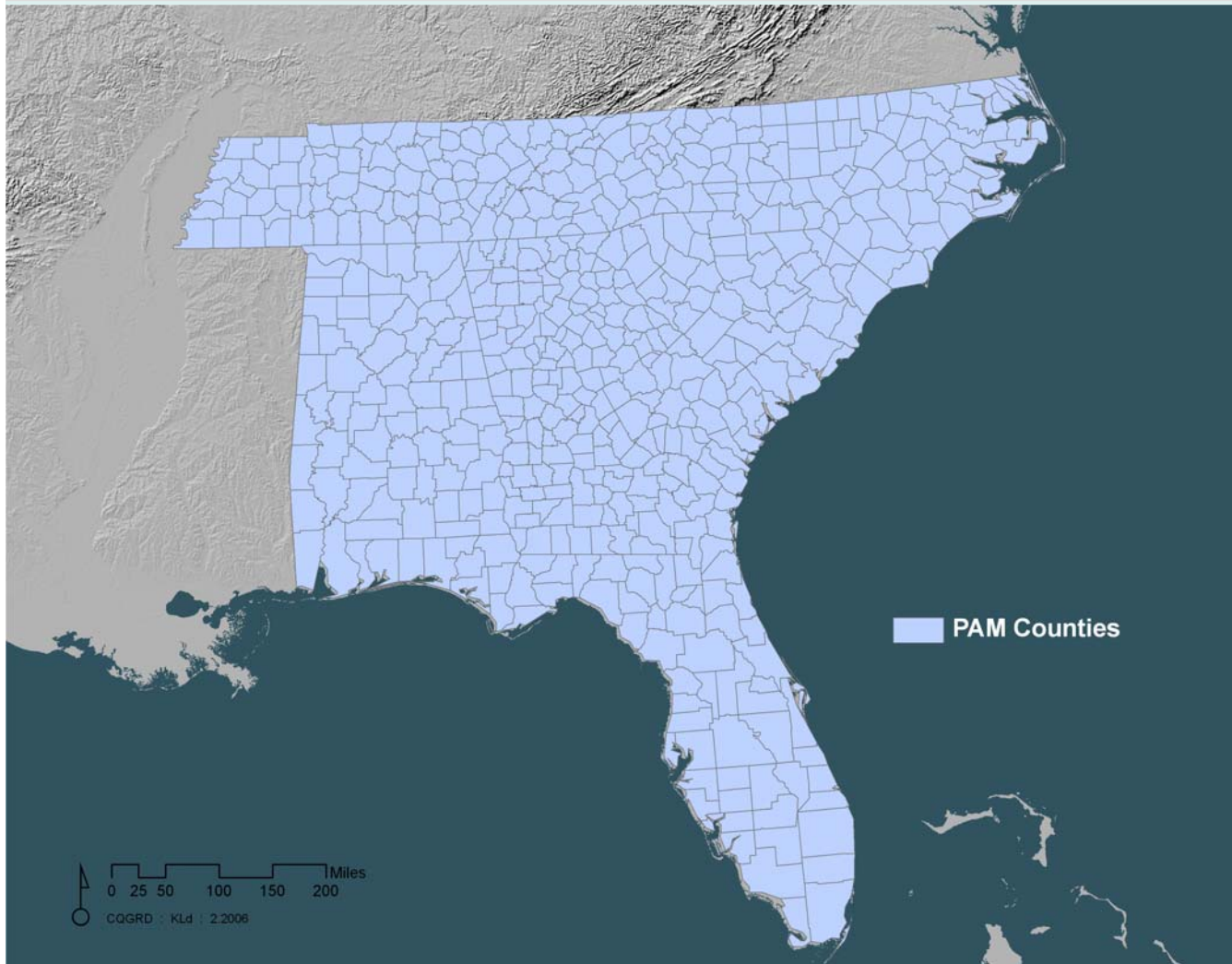
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6 states

Issues Facing PAM : fragmentation

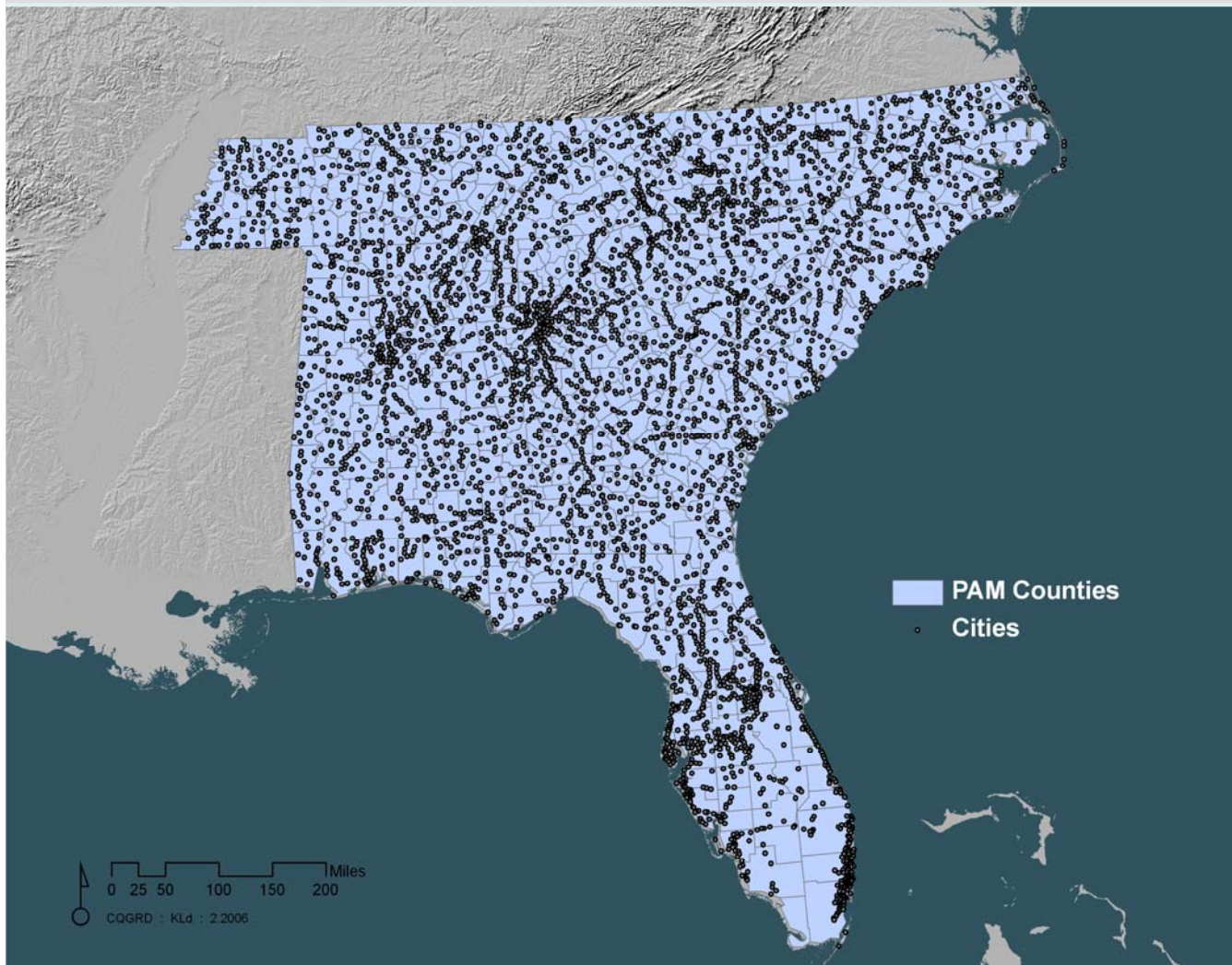
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534 counties

Issues Facing PAM : fragmentation

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4,400+ cities

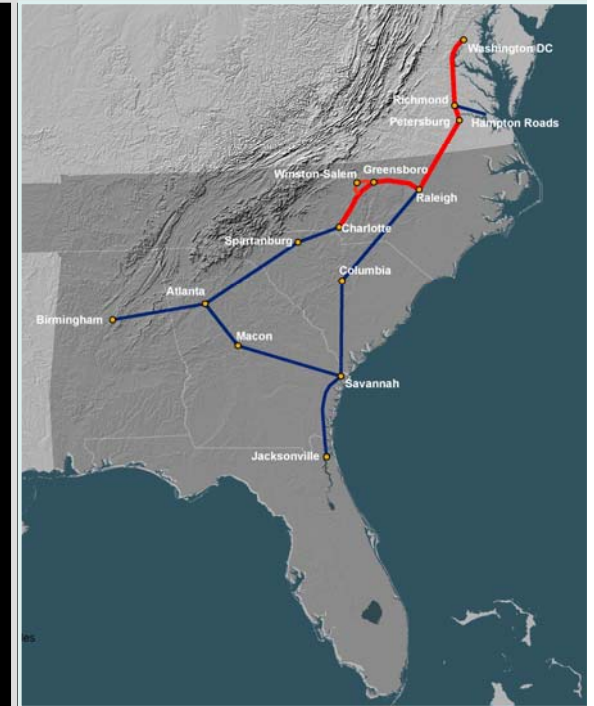
Demanding **innovative solutions** and **collaboration**.

SOURCE: U.S. Census data, 2000

Strategies for PAM

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- **Transportation Options:** Southeast High Speed Rail
- **Green Infrastructure:** innovating financing to protect lands
- **Spatial Planning:** a third century of national growth and development



PAM Benchmarks

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2004	Pocantico Policy Roundtable
Spring 2005	Georgia Tech Sustainability Course
Mar 2005	SuperCities Charrette in Madrid, Spain
Apr 2005	RPA Regional Assembly
Sept 2005	NARC Conference
Oct 2005	ACSP Conference
Spring 2006	Georgia Tech Sustainability Course
Jan 2006	Think Global, Act Regional Symposium
Feb 2006	CQGRD MegaRegion Web site, www.cqgrd.gatech.edu/megaregions/
Feb 2006	Georgia Governor's Conference
Feb 2006	Pocantico Policy Roundtable
Apr 2006	APA Conference
May 2006	Environmental Design Research Association



Think Global, Act Regional Symposium

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Sen. Johnny Isakson



Myles Greene Smith,
Georgia Power



Mayor Shirley Franklin



Joseph Palladi, Georgia DOT



Armando Carbonello, Lincoln Land



Barry Nock, Clemson University



Mayor Arthur Kirkindall, Madison, AL

Highlights:

- January 2006
- Introduced PAM
- Hosted 100 people from six states
- Included ULI Mayors' Forum
- Resolution for multi-state emergency preparedness coordination
- Call for future PAM discussions

Future PAM Efforts

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- **facilitating visioning**
- **promoting leadership and “followership”**
- **advancing MegaRegion theory**
- **continuing PAM research**

For more information:

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