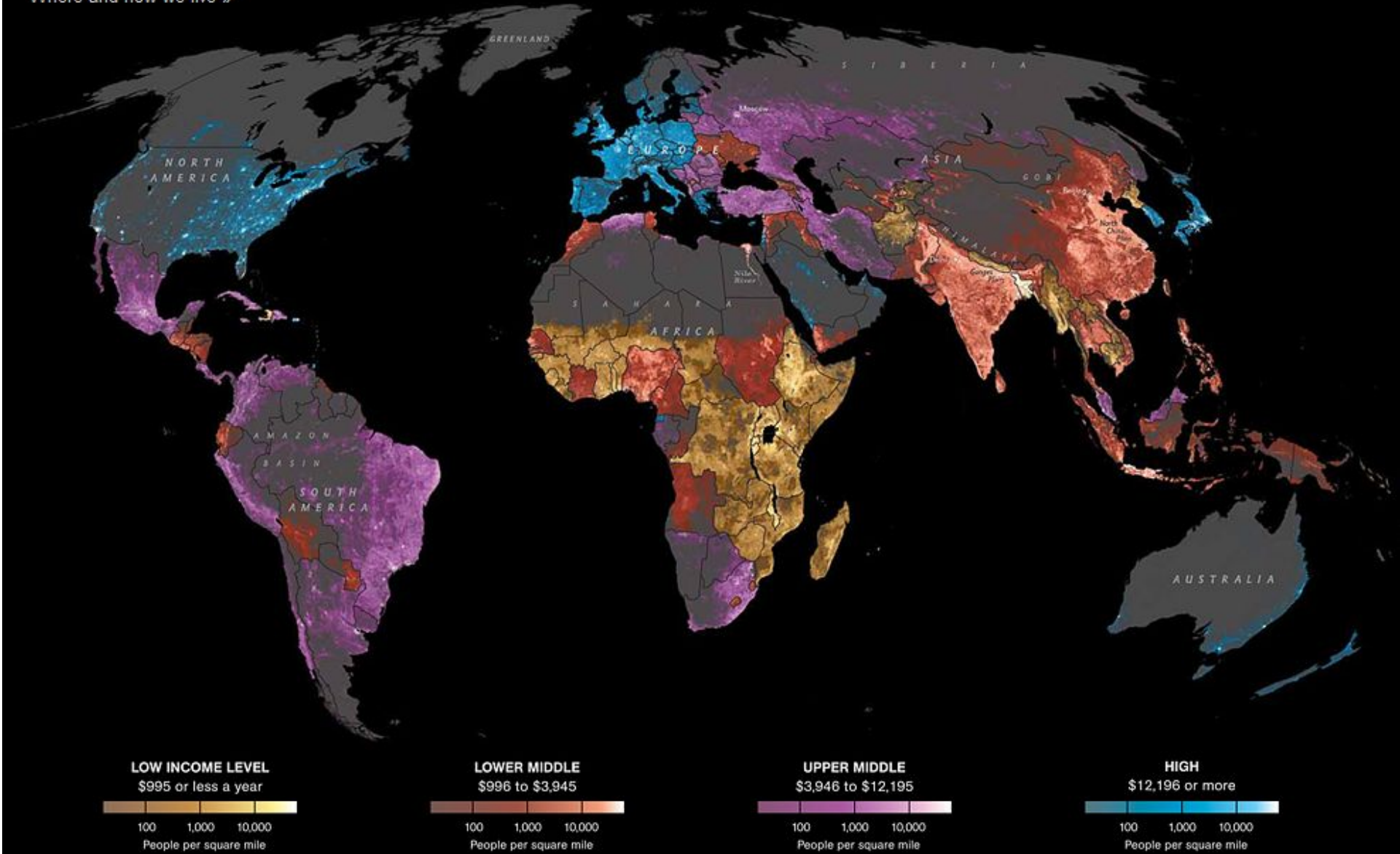


The World of Seven Billion

Where and how we live »



The World of Seven Billion

1 2 3 4

Population

Most future population growth will happen in the less developed countries, where birthrates remain highest.

LOW INCOME LEVEL
\$995 or less a year

1 billion



LOWER MIDDLE
\$996 to \$3,945

4 billion



UPPER MIDDLE
\$3,946 to \$12,195

1 billion



HIGH
\$12,196 or more

1 billion



Life expectancy at birth

Improved health care and nutrition have raised life expectancy from a global average of 52 years in 1960 to 69 years today.



Deaths under age five (per 1,000 live births)

Worldwide there has been remarkable improvement. Since 1960, the number of children who die before age five has fallen by more than half.



Access to improved sanitation (percent)

The UN defines this as access to toilets—even simple pit toilets—that keep excrement away from humans, animals, and insects.



Deaths caused by infectious disease (percent)

The top five causes of death by infectious disease are acute respiratory infections (such as pneumonia), HIV/AIDS, diarrhea, TB, and malaria.



Years of education

Increases in education affect not only economic development but population: The more education a woman receives, the fewer children she is likely to bear.



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Literacy rate (percent)

Global literacy is 82 percent. But for those who live where printed materials, even signs or product boxes, are rare, reading is a "use it or lose it" skill.



66



80



93



98

Fertility rate (children per woman)

In most of the world, the fertility rate has fallen. Among the reasons: decline in infant mortality, economic improvements, and education of women.



4



3



2



2

Rate of natural population increase (percent)

A country's annual natural growth rate is measured by subtracting the number of deaths from the number of births. It does not include migration, in or out.



2.27



1.27



0.96



0.39

Net migration rate (per 1,000 people)

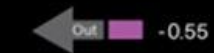
More than 200 million people—over 3 percent of the world's population—live outside the country in which they were born.



-0.58



-0.36



-0.55



2.57

Urban population (percent)

As of 2008, the world's population has shifted from mainly rural to more than 50 percent urban. Most urbanites live in cities of fewer than 500,000 people.



27



4



74



78

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Phone subscriptions (per 100 people)

Cell phone use has exploded in developing countries, leapfrogging over the more expensive infrastructure needed for hardwired phone lines.

Telephones Cell phones



Telephones Cell phones



Telephones Cell phones



Telephones Cell phones



Internet users (per 100 people)

Most of the world accesses the Internet through computers shared in libraries, offices, or Internet cafés.



Personal computers (per 100 people)

Computers are still a luxury for most of the world because of cost and lack of infrastructure that delivers reliable electricity and Internet connections.



Cars (per 1,000 people)

Perhaps the greatest symbol of rising income status, cars are also a leading source of CO₂ emissions. In India, sales have quadrupled since 1998.

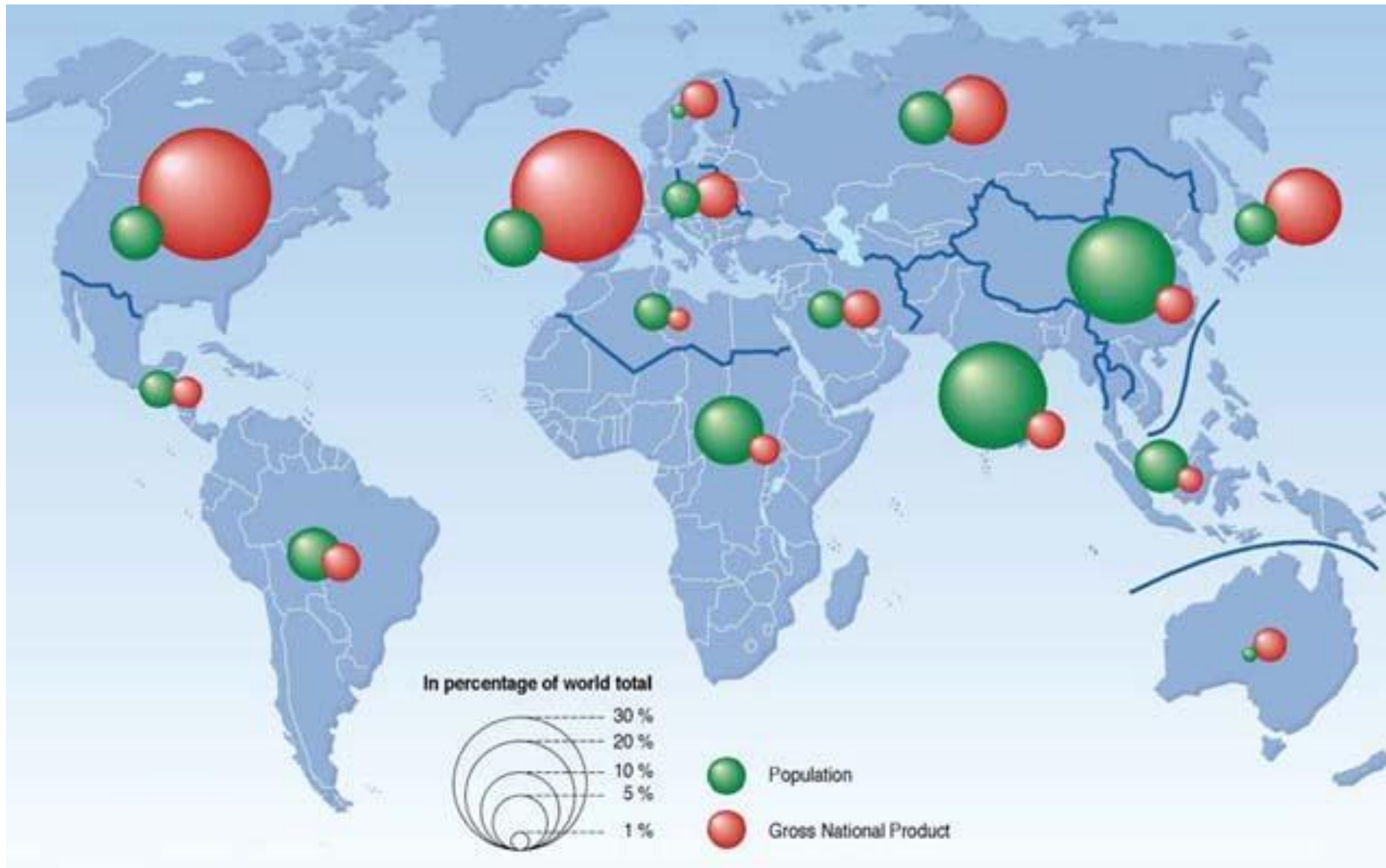


Carbon dioxide emissions (per capita, in metric tons)

Energy demand, largely for fossil fuels, continues to rise. China has surpassed the U.S. in total CO₂ emissions, but, per capita, U.S. emissions are four times higher.

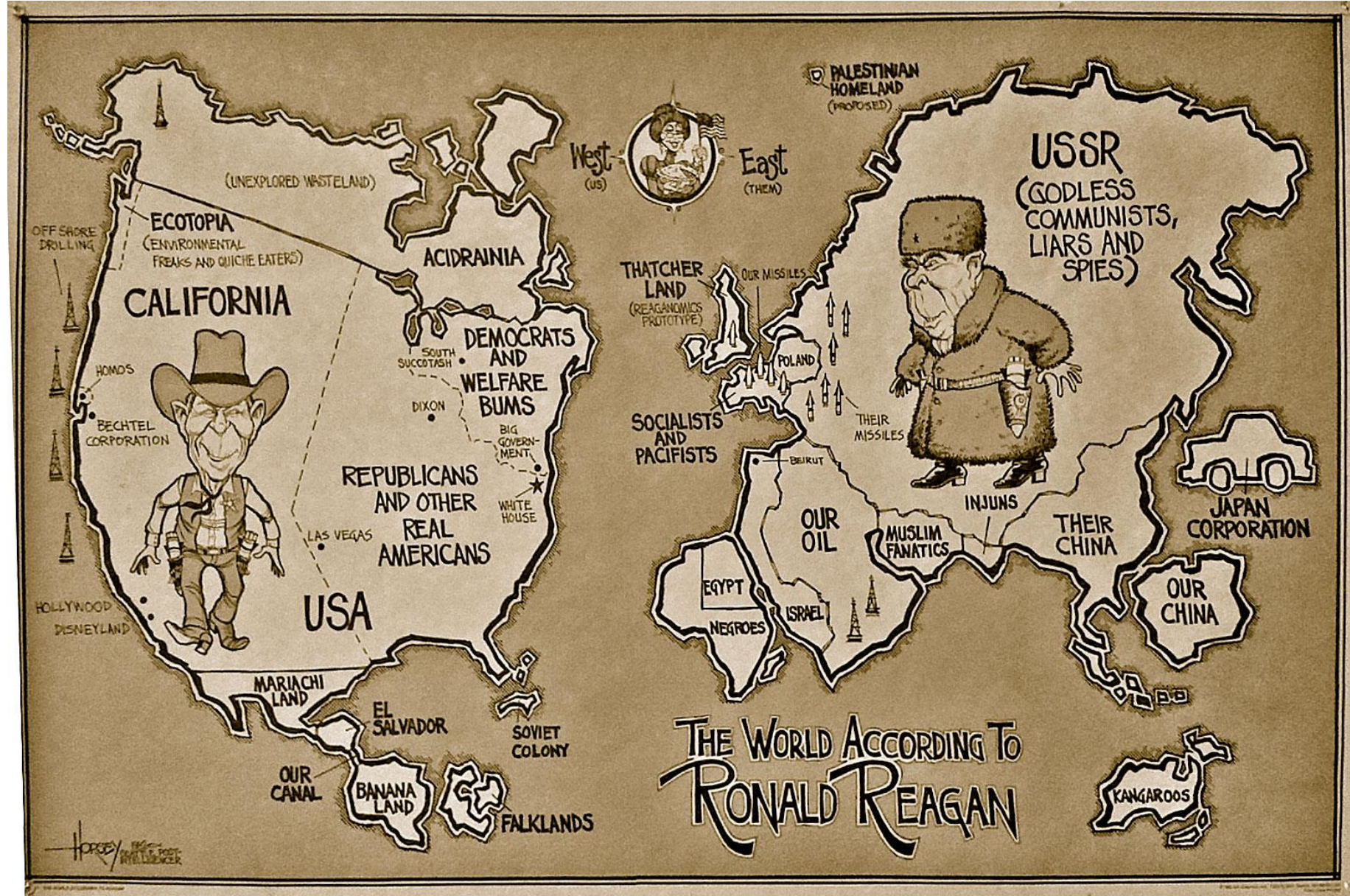


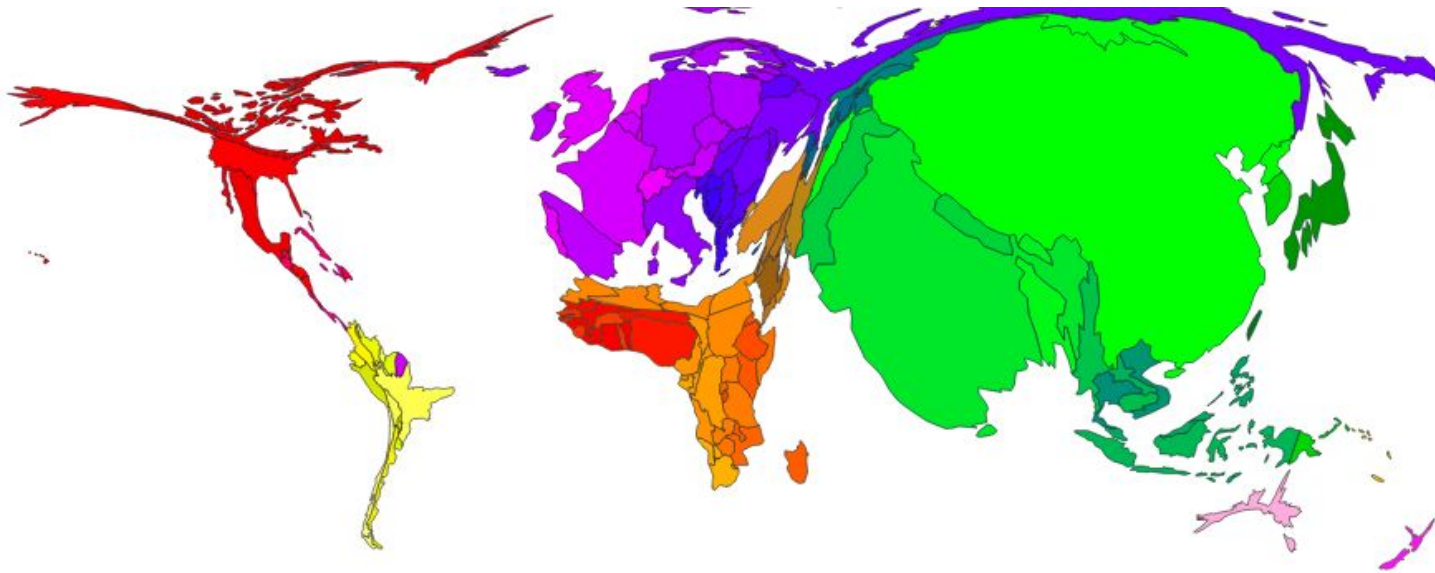
Population and GDP, % of world total, by regions



Source: UNEP GRID-Arendal, 2009

Мир по Р. Рейгану

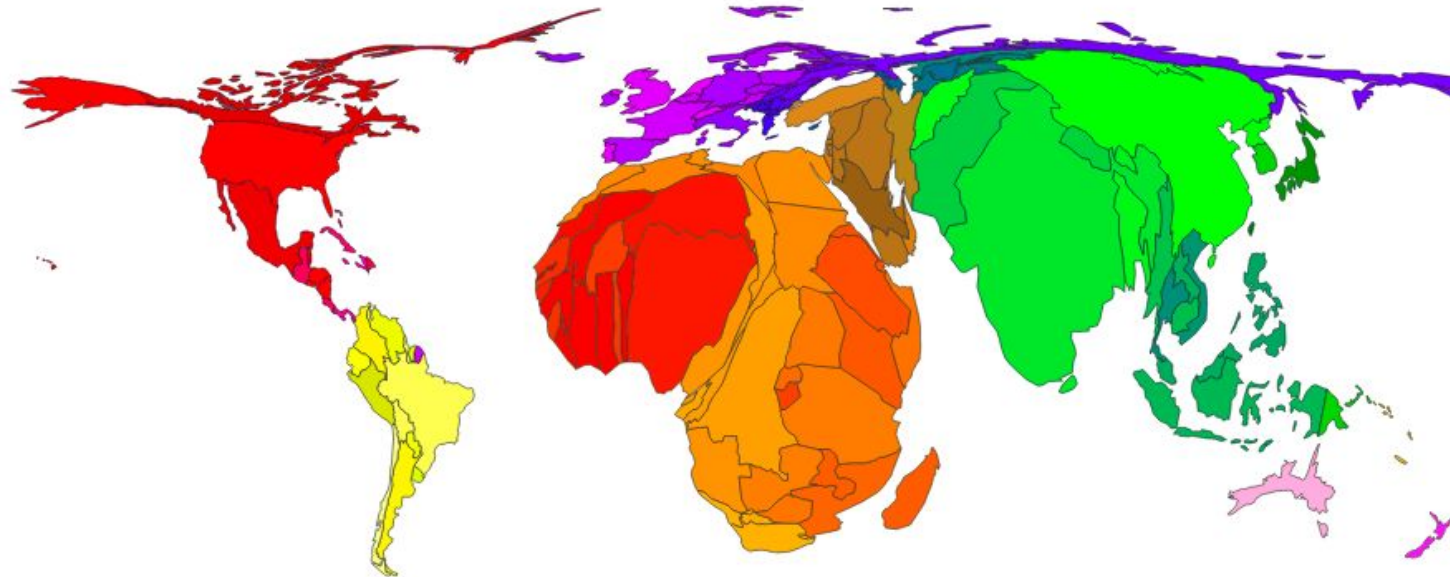




1800

1.0 billion

World Population

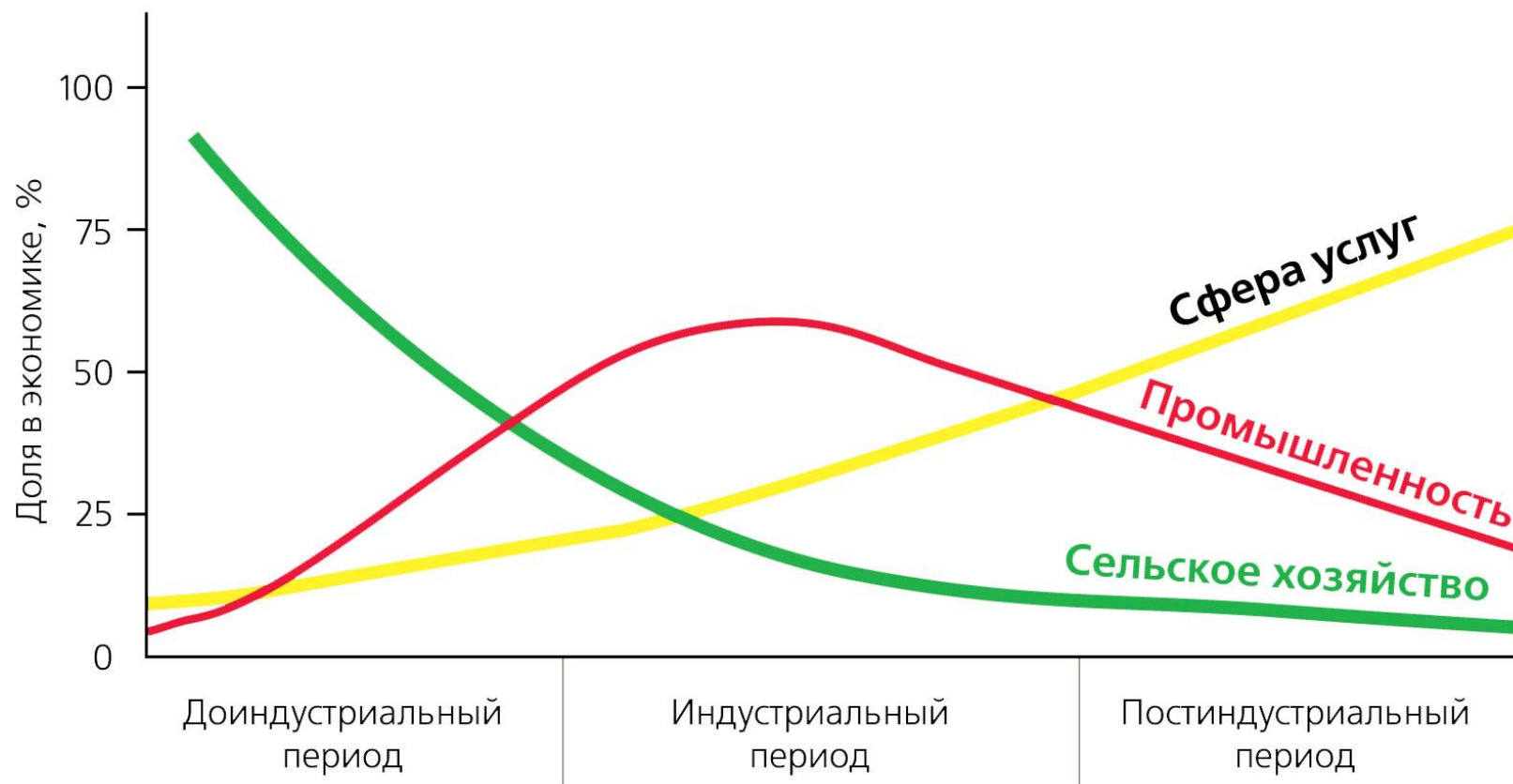


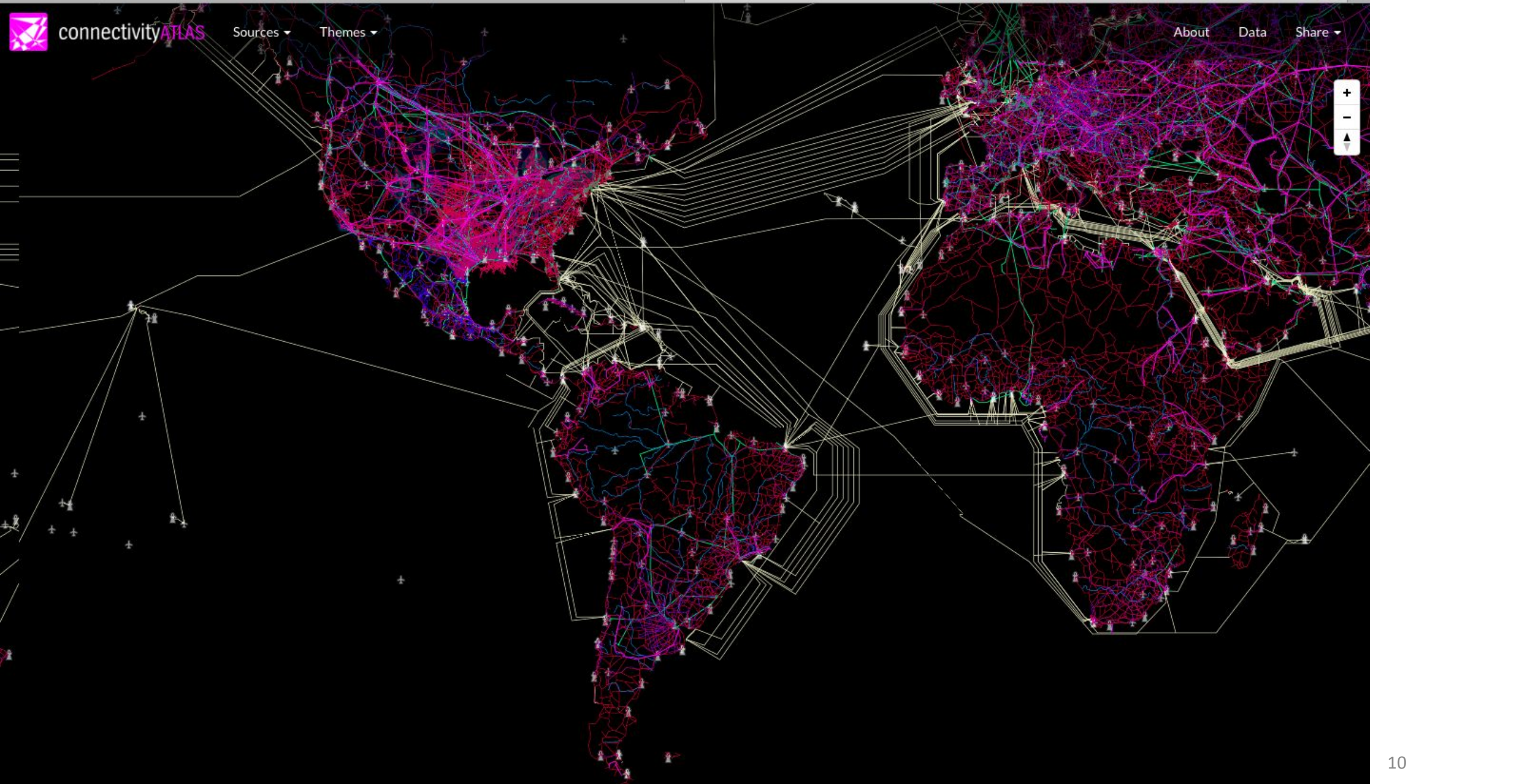
2100

11.2 billion

World Population

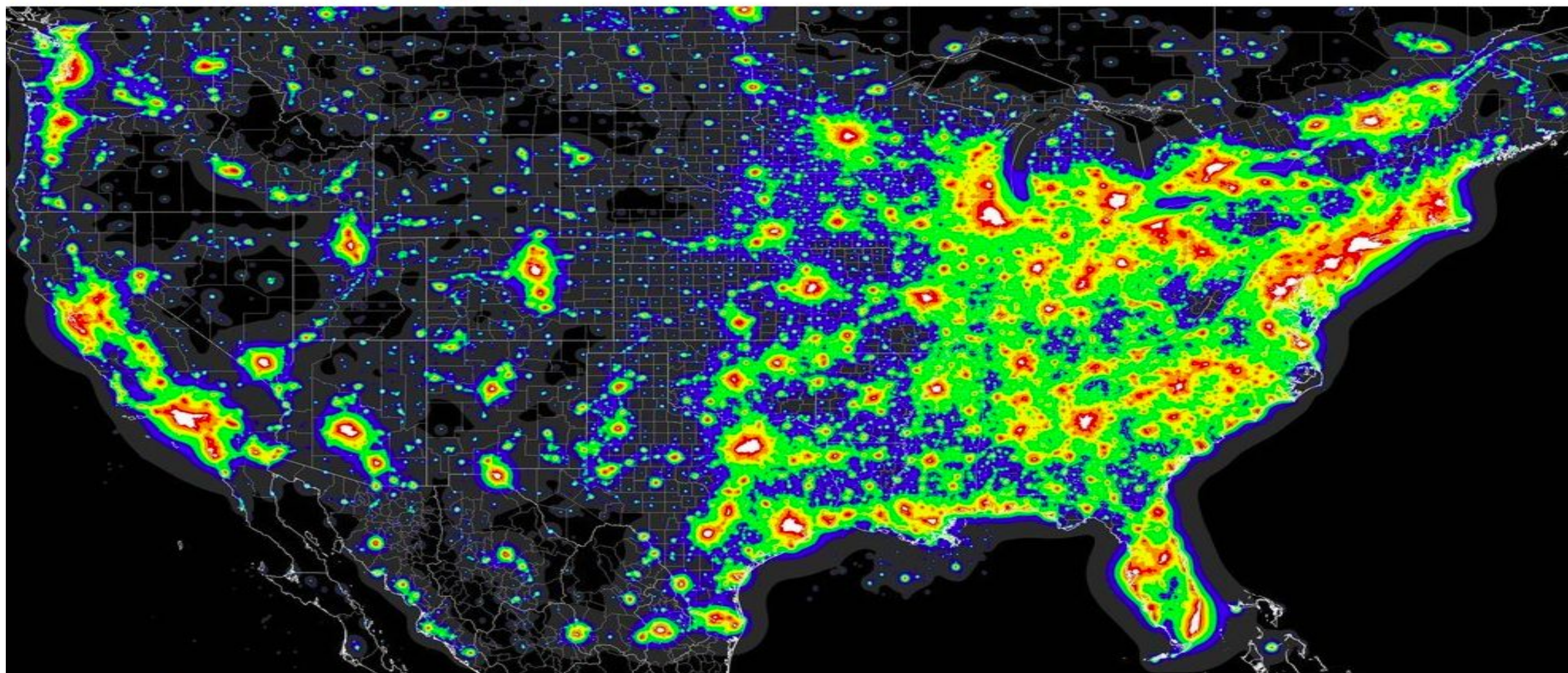
Динамика ВВП (модель Кларка)



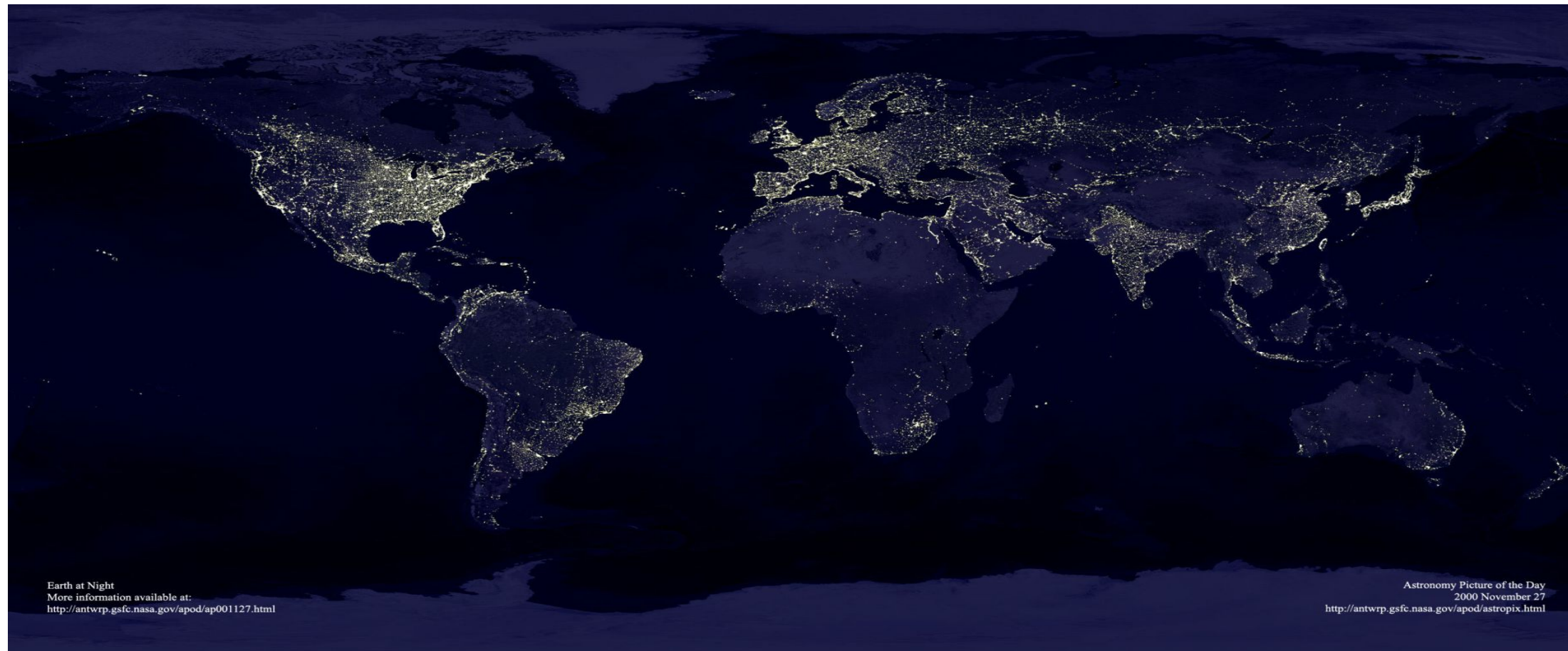


США – уровень загрязнения

10. Or alternatively, via light pollution...



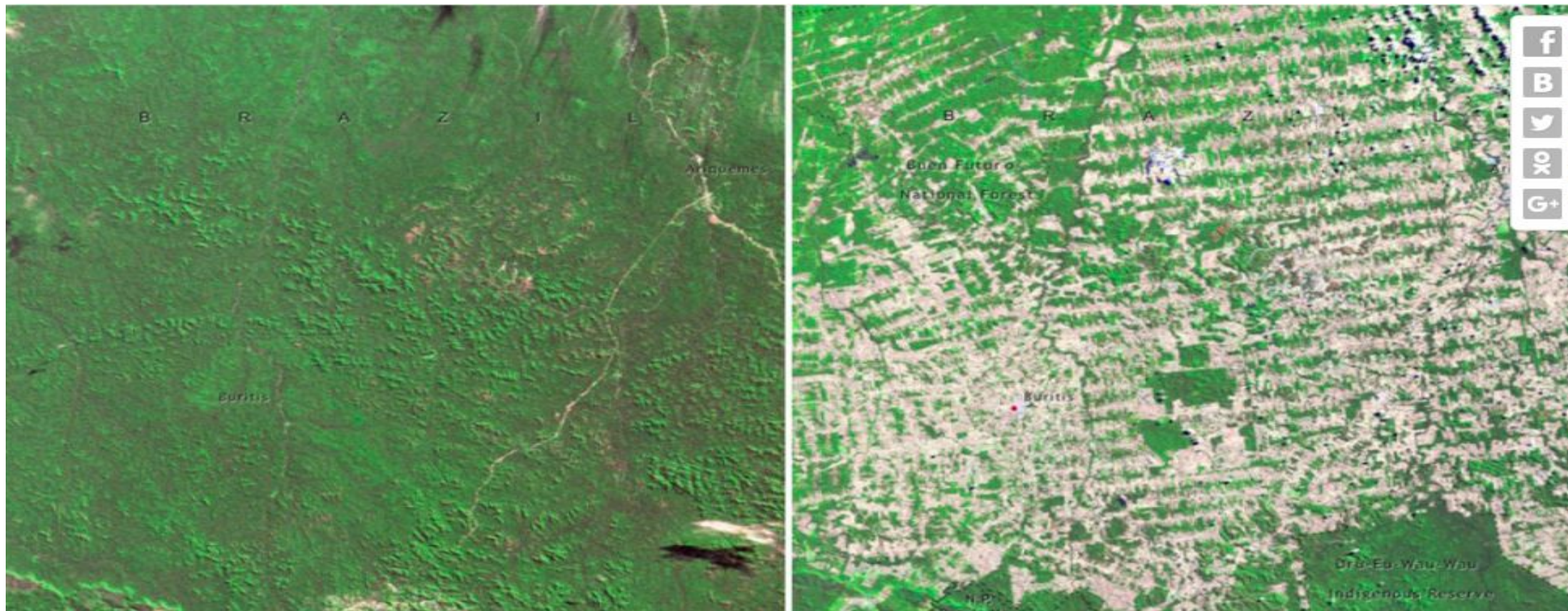
Космические снимки



Earth at Night
More information available at:
<http://antwrp.gsfc.nasa.gov/apod/ap001127.html>

Astronomy Picture of the Day
2000 November 27
<http://antwrp.gsfc.nasa.gov/apod/astropix.html>

Штат Рондония (Бразилия)



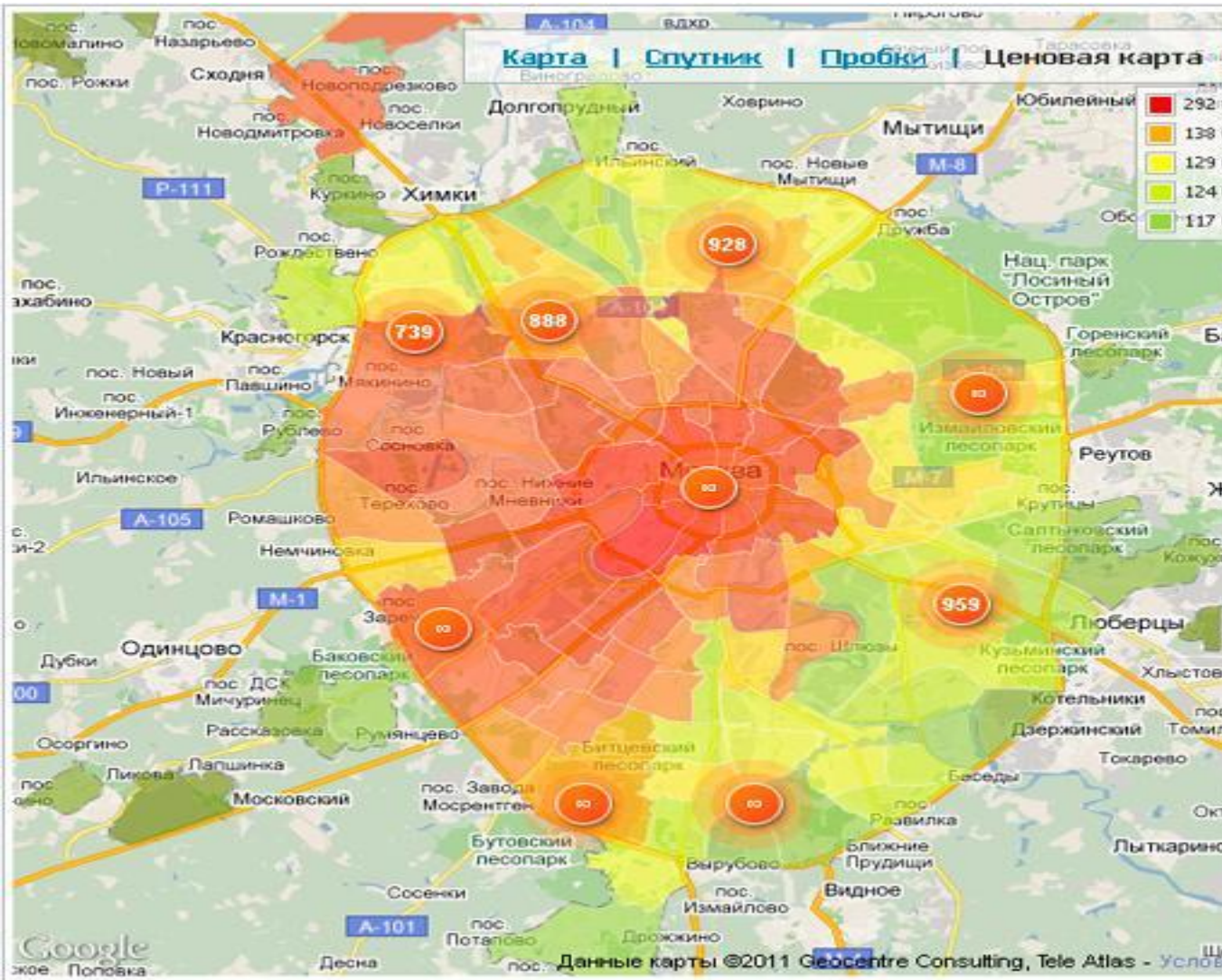
Леса в Рондонии, Бразилия. Июнь 1975 г. — август 2009 г.

Арал



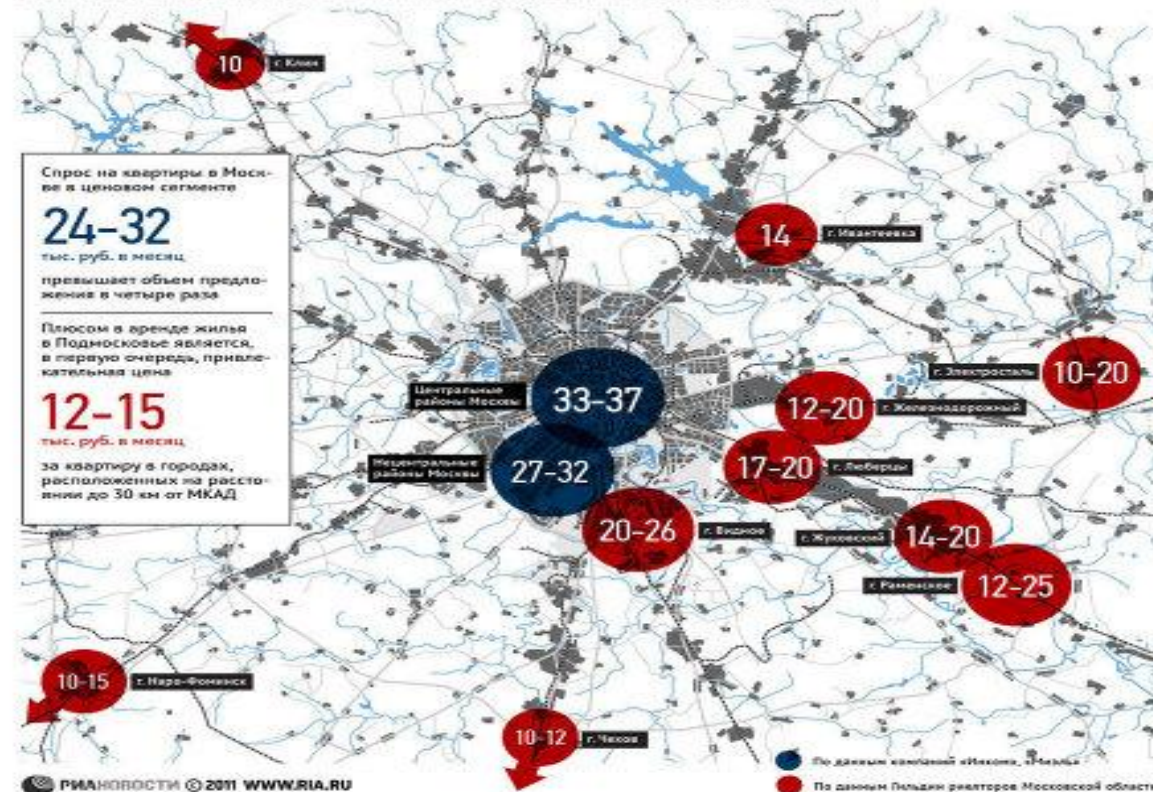
Аральское море, Центральная Азия. Август 2000 г. — август 2014 г.

Стоимость кв. метра и аренды



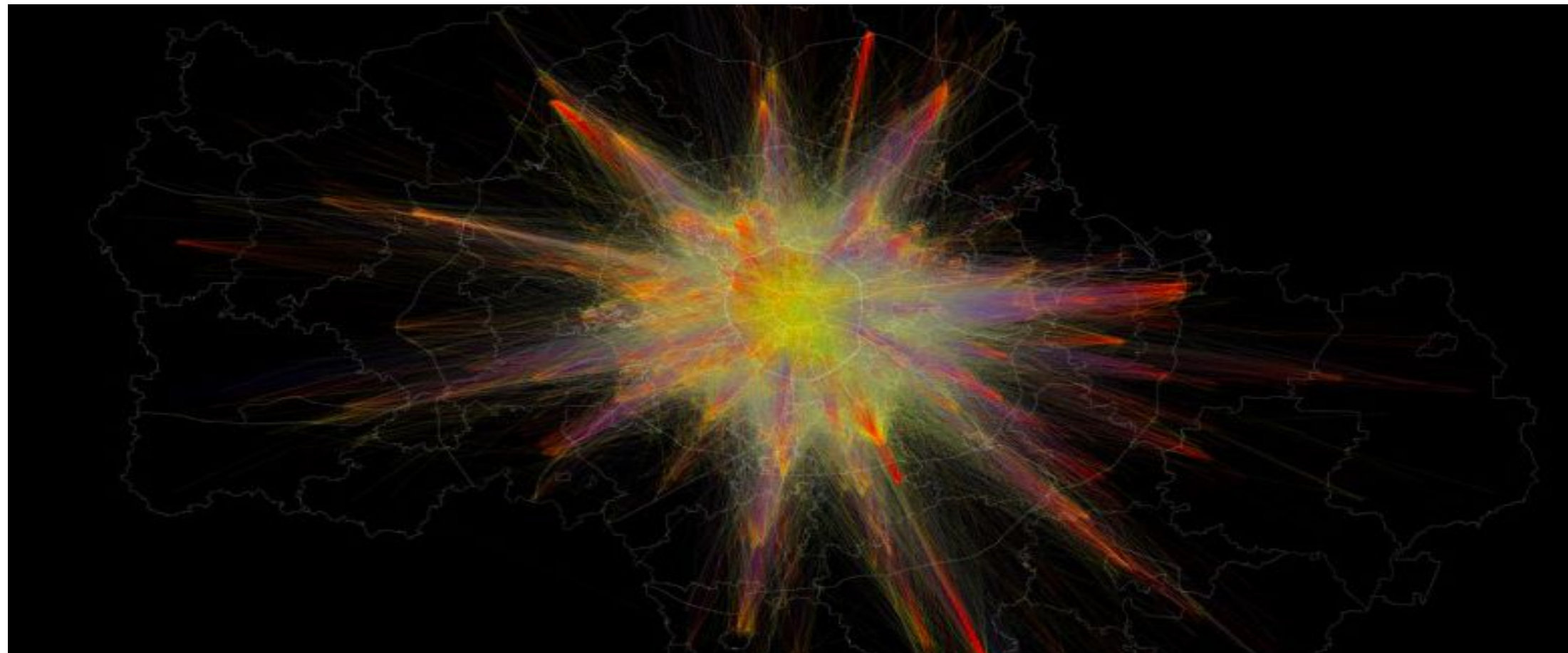
Аренда квартир в Москве и Подмосковье

Сколько стоит ежемесячная аренда 1-комнатной квартиры эконом-класса в столице и области



Использование данных сотовых телефонов для анализа мобильности в Московском регионе

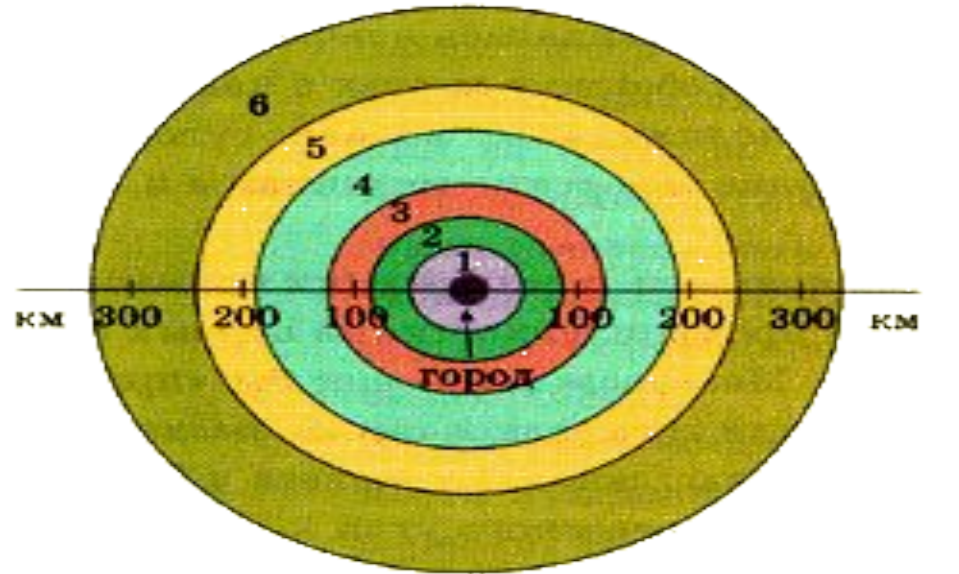
<http://habidatum.com/project/motions-muscovites-mobility-patterns/>



Условия выполнения модели

- 1) Государство изолировано от остального мира
- 2) Доминирует 1 город – центр рыночной зоны, единственный рынок сбыта
- 3) Город – на обширной однородной равнине с одинаково плодородной землей
- 4) Город снабжают фермеры, получающие максимально возможную прибыль при минимальных транспортных издержках и себестоимости
- 5) Транспортное сообщение оптимизировано – кратчайшим путем по дорогам одинакового качества – т. е. Стоимость перевозок прямо пропорциональна расстоянию

Зонирование в модели Тюнена

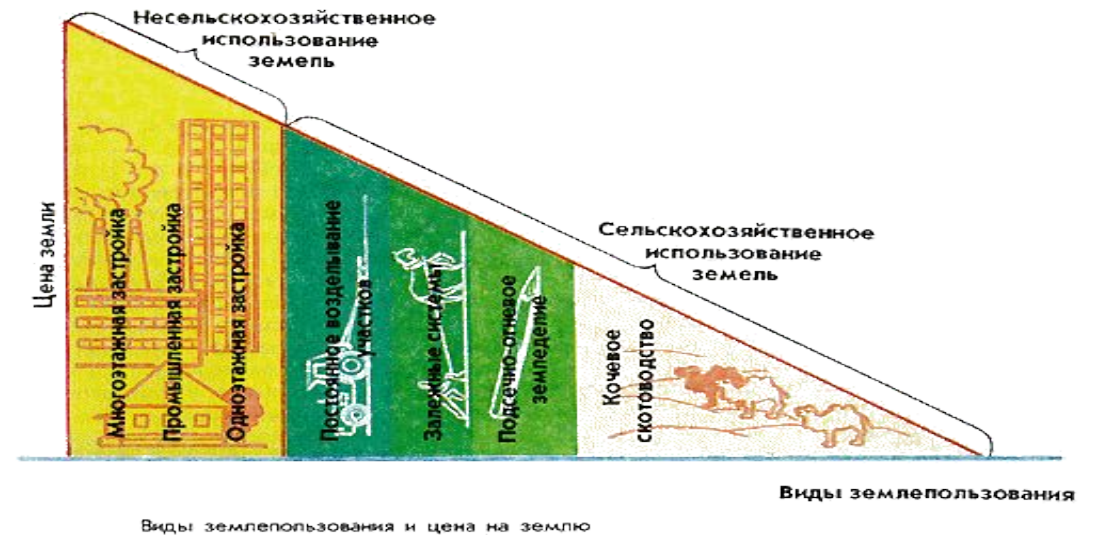


- 1 — товарное огородничество и садоводство
- 2 — лесное хозяйство
- 3 — интенсивное полеводство
- 4 — молочное животноводство
- 5 — экстенсивное зерновое хозяйство
- 6 — экстенсивное животноводство

- Взаимосвязь трех факторов:
 - - расстояние от фермы до рынка
 - - цена на продукцию
 - - земельная рента
- чем ближе фермер находится к рынку, тем большую прибыль он получает за любую продукцию

Закономерность размещения цены на земельные участки

- Стоимость земельных участков снижается по мере удаления от центрального места
- Снижение интенсивности использования земель по мере удаления от центра



Землепользование в Сенегале

- Снижение интенсивности использования земель по мере удаления от хижины

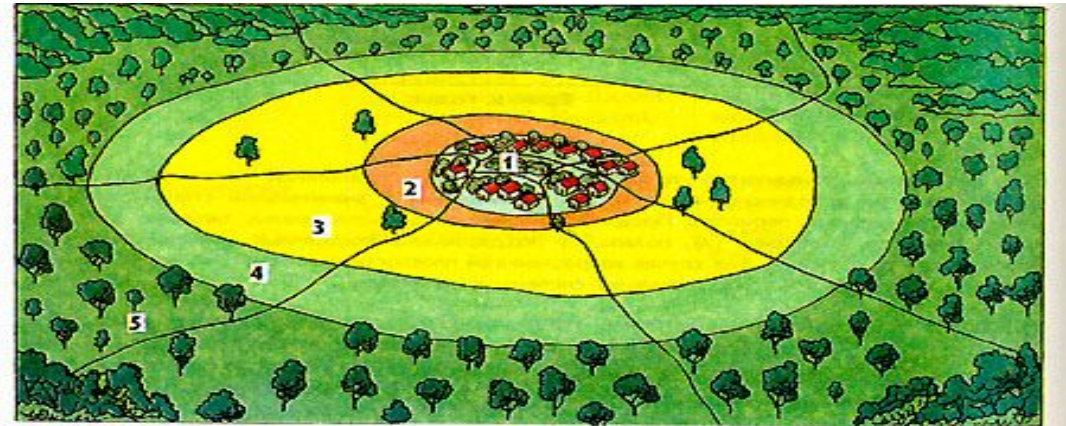
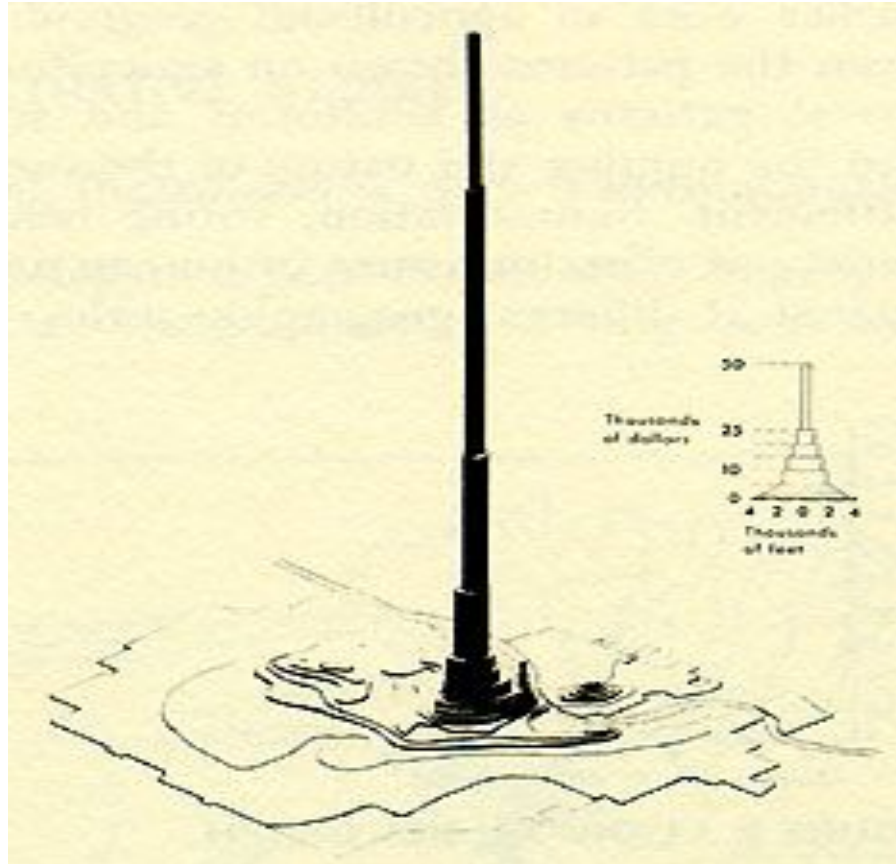


Схема землепользования на типичной ферме в Сенегале: 1 — дома и сады, 2 — постоянно обрабатываемые поля, 3 — интенсивная залежная система, 4 — интенсивная переложная система, 5 — экстенсивная переложная система

Цена на землю в г.Топика, США



- Цена на землю максимальная в центральном деловом районе и снижается к окраинам
- локальные пики цен на пересечении транспортных магистралей