What is Development Economics?

What is Economics?
 The study of how scarce resources should be allocated among competing wants.

In the Sen article (1983), he states development economics is "A comparatively young area of inquiry. It was born just about a generation ago, as a sub discipline of economics". Many ideas go back further into economic history however.

Sen argues there were four main themes in the first generation of development economics.
1) Industrialization (move from agrarian to industrial)
2) Rapid capital accumulation (savings and investment)
3) Mobilization of underemployed labor (move rural to urban)
4) Planning and an economically active state (coordinated planning and state intervention)

Sen argues that the empirical evidence suggests these four themes were not wrong so much as they were themes about income growth.

What we have learned is that income growth and economic development are not necessarily the same thing.

Sen argues that we should view income growth as a means to other objectives and those objectives characterize development. [p. 17-20]

Development needs to add in concern not only about growth of income, but also concern about the entitlements of people and capabilities these entitlements generate.

Entitlements – the set of alternative commodity bundles that a person can command in a society using the totality of rights and opportunities that he or she faces. Note famine work by Sen: food availability crisis vs. food entitlement crisis.

Capabilities – the freedoms a person has in terms of the choices of what to do with the bundles under his or her control.

What good is more food if you have parasites? What good is more income if you are not free to choose how to use it? Income growth is a means to more freedom, rather than an end in and of itself. Greater freedom is the goal (political participation / income growth tradeoff issue).

Todaro and Smith list three goals of development.
1) Provision of basic needs.
2) Self Esteem [both material as a way to gain self-esteem and the way income is gained if it respects culture and tradition]
3) Enhanced ability to choose.

In the recent past, definitions of development have been made in reference to the Millennium Development Goals (MDGs) and the successor Sustainable Development Goals (SDGs)

MDGs were adopted in September 2000. They were framed as development goals to achieve by 2015.

Goal 1: Eradicate extreme poverty and hunger.
Goal 2: Achieve universal primary education.
Goal 3: Promote gender equality and empower women.
Goal 4: Reduce child mortality.
Goal 5: Improve maternal health.
Goal 6: Combat HIV/AIDS, malaria & other diseases.
Goal 7: Ensure environmental sustainability.
Goal 8: Develop a global partnership for development.

18 specific targets and 48 indicators are associated with these goals.
http://unstats.un.org/unsd/mdg/default.aspx
Final Report https://www.undp.org/content/undp/en/home/librarypage/mdg/the-millennium-development-goals-report-2015.html

We can see that some areas and some indicators met the goals while others did not.

These are now updated to be the Sustainable Development Goals (SDG).
http://www.un.org/sustainabledevelopment/sustainable-development-goals/

Since September 2015, goals to 2030. 17 Sustainable development goals and 169 targets that are monitored with a set of global indicators.

Data is available here

There are annual SDG Progress Reports. This links to 2018's report but you can find the other years here.

https://unstats.un.org/sdgs/report/2018/

A recent chart gives a summary of progress broken down by area:

https://unstats.un.org/sdgs/report/2019/progress-chart.pdf

What is a developing economy?

To get some kind of hard and fast categorization, we can go to the World Bank for their take on the definition of a developing country. First we need to get a few definitions sorted out.

Gross domestic product is the total value for final use of output produced by an economy, both by residents and nonresidents. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources (more on the latter later in the semester).

Gross national income is the sum of the gross value added by all resident producers plus any product taxes (less subsidies) that are not included in the valuation of output plus the net receipts of income from abroad.

Roughly speaking, GNI=GDP + income residents receive from abroad for factor services (as in payments for use of labor and capital) minus payments made to nonresidents for factor services to the national economy.

The World Bank classifies countries based on GNI per capita, and as expressed in US Dollars.

Two main alternative approaches to expressing these figures in USD.

1) Exchange rate conversion. (see description of for details).

2) Purchasing power parity. Use a common set of international prices for all goods and services produced in a given country, valuing all goods and services in USD. PPP is defined as the number of units of a foreign country's currency required to purchase the identical quantity of goods and services in the local market as $1 would buy in the US. (see the Economist Big Mac example)

   a. Intuition – how much does a haircut or a shoeshine cost?

Classify countries using GNI per capita as converted to USD by the exchange rate / atlas method.

Classifications (changing, these are currently applicable). You can find these on the World Bank home page
https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

For the current 2020 fiscal year, low-income economies are defined as those with a GNI per capita, calculated using the World Bank Atlas method, of $1,025 or less in 2018; lower middle-income economies are those with a GNI per capita between $1,026 and $3,995; upper middle-income economies are those with a GNI per capita between $3,996 and $12,375; high-income economies are those with a GNI per capita of $12,376 or more.

# Economies are divided according to 2018 GNI per capita, calculated using the World Bank Atlas method.
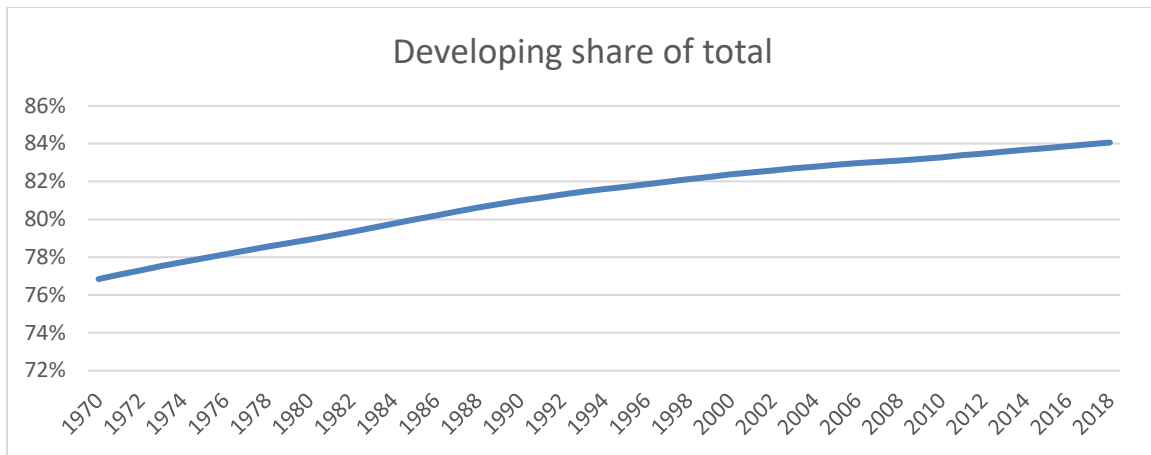
The groups are:
- low income, $1,025 or less;
- lower middle income, $1,026 - $3,995;
- upper middle income, $3,996 - $12,375;
- and high income, $12,376 or more.

http://data.worldbank.org/about/country-classifications

Developing is defined as low and middle (both upper middle and lower middle) income.

Population in developing and high income countries over time.

Developing share of total
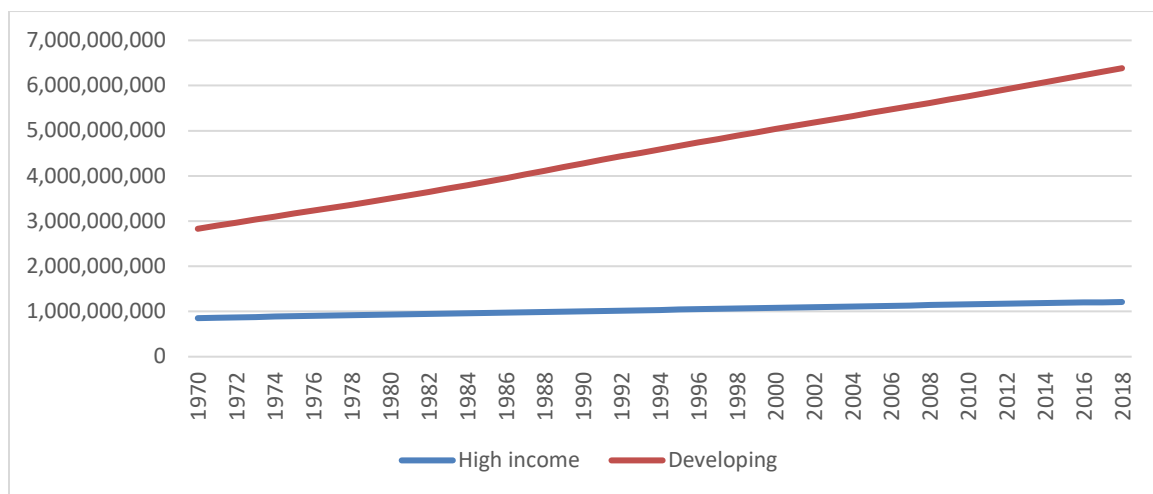
By the latest ranking, 84% of the world's population lives in developing countries.

Note also that the World Bank categorizes countries based on geographical area. They also have categorized by degree of indebtedness but have stopped. Also categorize by what kinds of programs a country is eligible for.

An alternative approach is to use the Human Development Index. (p. 59-64)

UNDP has published Human Development Reports, starting in the early 90's.

The HDI ranks countries on a scale of 0 (low human development) to 1 (high human development).

In the original version there were three components that to some degree reflect the objectives of development in the sense argued by Sen.

1) Life expectancy
2) Education (composed of adult literacy and gross enrollment index for primary, secondary and tertiary education).
3) Income index.

Life expectancy is based on a low of 25 and a high of 85.

Adult literacy and enrollment are based on 100% standard. Education index gives 2/3 weight to literacy and 1/3 to enrollment.

Income is based on a low of 100 and a high of 40,000. Note that income is logged to reflect the diminishing marginal utility of income.

$$HDI = \frac{1}{3}(\text{income index}) + \frac{1}{3}(\text{education index}) + \frac{1}{3}(\text{life expectancy index})$$

"The original HDI methodology was revised in 2010 for the 20th anniversary edition of the Human Development Report. How is it different?
The HDI remains a composite index that measures progress in the three basic dimensions—health, knowledge and income. Under the previous HDI formula, health was measured by life expectancy at birth; education or "knowledge" by a combination of the adult literacy rate and school enrolment rates (for primary through university years); and income or standard of living by GDP per capita adjusted for purchasing-power parity (PPP US$).
Health is still measured by life expectancy at birth. But the 2010 HDI measured achievement in **knowledge** by combining the expected years of schooling for a school-age child in a country entering school today with the mean years of prior schooling for adults aged 25 and older. The **income** measurement, meanwhile, has changed from purchasing-power-adjusted per-capita Gross Domestic Product (GDP) to purchasing-power-adjusted per-capita Gross National Income (GNI); GNI includes some remittances, providing a more accurate economic picture of many developing countries."
From http://hdr.undp.org/en/media/FAQs_2011_HDI.pdf

http://hdr.undp.org/en/content/human-development-index-hdi

According to the 2019 rankings, the best place to live is Norway, the worst is Niger.

High human development is 0.8 or above, medium human development is 0.5 to 0.8, and low human development is below 0.5.

Development is the process that leads to improvement in this measure.

The correlation between HDI rankings and GNI per capita rankings is 0.76, the HDI index and the GNP index is 0.92.

For your homework, you might want to get some of the information on your country that can be found here:

Country profiles. http://hdr.undp.org/en/countries

Can look at trends over time, disaggregated data, do comparisons across countries

There is some interesting research on HDI ranking by gender, race, ethnicity, and region within countries as well. (See gender related development index on the UNDP site for example, where the gender measure makes Saudi Arabia and Yemen drop 6 places but Philippines increases 6 places).

Also to preview a topic we will get to later, there is a Human Poverty Index and a Multidimensional Poverty Index that focus on depravations. This takes the same basic insight (development is not just higher income) to poverty (poverty is not just less income).

We will talk more about this when we consider poverty as a specific topic.
In seeking to define what development looks like, we might look at economic history.

What characteristics were common to the growth process of most developed countries? What did 'development' look like for those that are now called developed?

Kuznets identified characteristics of developing economies by looking at the history of developed countries.

1) High rates of growth of per capita output and population. Total output growing at about 3%, per capita output 2%, population at about 1% during period of rapid growth.
2) High rates of total factor productivity increase. The output per unit of input. The efficiency with which inputs are used in the production function. Appears to be more important than factor accumulation (more on this in growth theory).
3) Structural economic transformation. Ag to industry to services, larger scale of production, rural to urban / suburban.
4) Transformation in attitudes, institutions, ideologies. Rationality: science and technology and the approach they engender. Planning: thought out coordination of a strategy. Equality as a goal: promoting actively equality. Institutions: land tenure reform, change in education and religion's role, administration approaches.
5) International economic involvement. Reach out for raw materials, cheap labor and lucrative markets.
6) Reaching out and economic growth were not contagious – growth occurred in a particular nation while others the interacted with did not always grow.

But is the history of how currently developed countries developed the appropriate model?

There are some reasons why the historical growth patterns may not be applicable to situation for current LDC's.

1) The current natural and human resource endowments in developing countries are not like developed countries when the developed countries commenced rapid growth.

     a. In some cases they just don't have these resources

     b. In others, they do, but the extraction requires capital, and the capital comes from outside, so you lose control

     c. Technical skills of the population not equivalent to that of DC's in their early growth phase

     d. Technical skills exist outside, so tempting to import rather than develop.

2)Per capita income and GNP are less than DC's when they entered rapid growth phase in real terms. Also, back then they were top of the heap with lower GNP's, now there is this other group already there.

GDP per Capita in England Relative to Modern Economies.

Country	Year	Income Per Capita (1992$)
UK	**1992**	**16,302**
Mexico	1992	7,867
Bulgaria	1992	6,774
Iran	1992	4,161
South Africa	1992	3,885
England	**1860s**	**2,982**
Indonesia	1992	2,601
England	**1400s**	**2,382**
England	**1760s**	**2,359**
Egypt	1992	2,274
Bolivia	1992	2,066
India	1992	1,633
England	**1300s**	**1,464**
Ghana	1992	1,249
Kenya	1992	1,176
Nigeria	1992	1,132
Malawi	1992	607
Chad	1992	504

	0	1000	1820	1998
	(1990 international dollars)			
Western Europe	450	400	1 232	17 921
Western Offshoots	400	400	1 201	26 146
Japan	400	425	669	20 413
Average Group A	443	405	1 130	21 470
Latin America	400	400	665	5 795
Eastern Europe & former USSR	400	400	667	4 354
Asia (excluding Japan)	450	450	575	2 936
Africa	425	416	418	1 368
Average Group B	444	440	573	3 102
World	444	435	667	5 709

Maddison's estimates   http://dx.doi.org/10.1787/301542223888

3)Climate – developing countries are located predominantly in the tropics. Tropical soils have high soil erosion potential, tropics introduce the potential for high rates of depreciation, diseases not found in temperate climates. Temperate technologies may not work in tropical zones.

4)Population size, distribution, growth
   a. LDC pop growing faster than DC's at DC's early growth phase. Health care innovations imported, bringing down death rate in LDC's.
   b. Per capita land availability is less in LDC's than in DC's in early growth phase.
   c. None of the DC's had a population anywhere near as big as the largest LDC current populations when they were in their early growth phase.

5)Migration. Then, free movement. Rural population could go to industrial city in country, if nothing there, US, Australia, Canada… Now restrictive immigration laws. Also (conversely) note brain drain – back then they would stay in most advanced, now LDC educated people have another place to go.

6)Trade. DC's dominated world trade when they were entering growth phase, now LDC's have a small, shrinking, worsening terms of trade with the global economy.

7)Research and Development. Most R and D takes place in developed countries. It addresses topics relevant to developed country issues. Not always applicable to issues in LDC's. Hard to catch up when R&D is designed to address issues of the countries already out front.

8)Unstable political and social institutions. Nation-state issues in early growth phase of DC's had been more or less worked out historically, or at least were not the dominant issue. Many LDC's are only a generation or two old, and are struggling with arbitrary borders and establishing a national identity when other identities are more powerful.
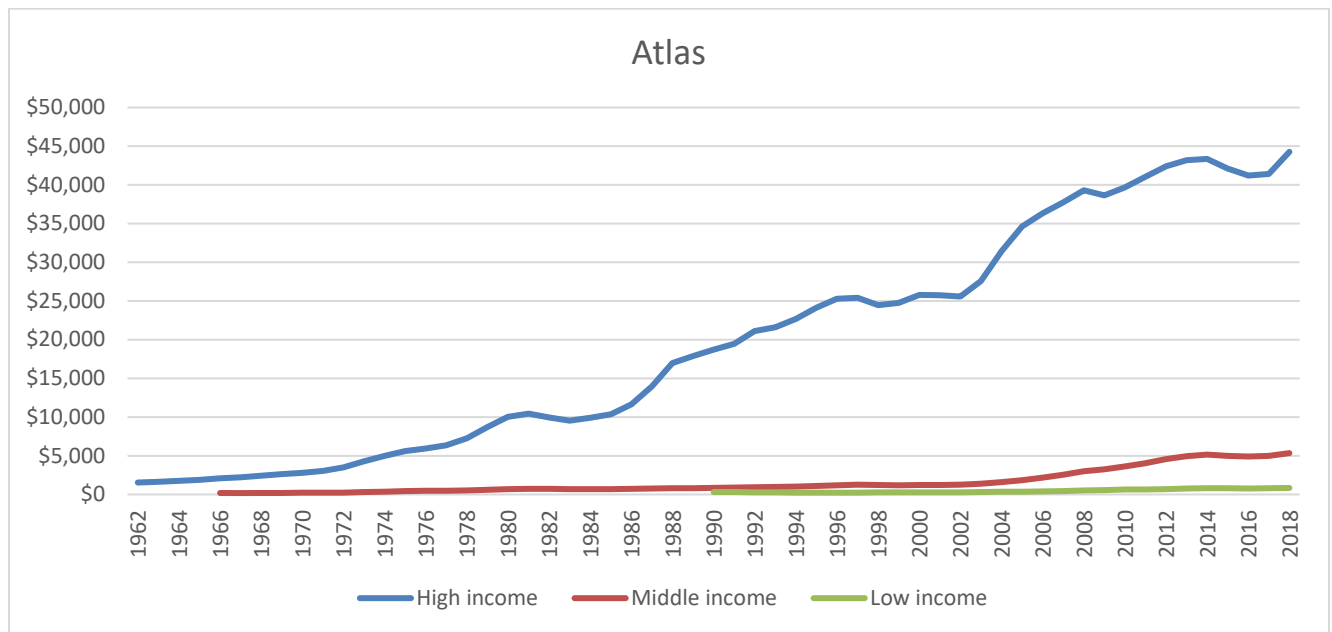
Some big picture references:

What is happening with income levels and income growth?
http://databank.worldbank.org/ddp/home.do

https://data.worldbank.org/indicator/NY.GNP.PCAP.PP.CD?locations=PE

https://data.worldbank.org/indicator/NY.GNP.PCAP.KD.ZG?locations=PE

Growth rate