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### Lecture - 23 In Conclusion

Hello and welcome to the Concluding Session of this edition of the NPTEL MOOCs course on Economic Growth and Development. In this concluding class, we will have an overview of all the lessons that we have done so far. As was mentioned in the beginning of the course, this is an 8 week course. And, we completed about 22 lessons across 8 weeks. So, in this concluding session, we will have an overview of all the lessons that we have done so far. And, we will also look at some of the implications of why we have been doing course on growth and development.

As I have also mentioned in the preamble to this course that this course is meant for a general audience, to understand the basic issues that arise with respect to these economic concepts of growth and development. There are certain set ways in economist in which economist are theorized about growth and development.

However, in our everyday discussions or arguments with respect to growth and development become a cross certain economic jargons, which through this course we have tried to deconstruct and make it easy for a general audience, to be able to engage themselves with the very basic arguments and debates with respect to growth and development.

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Week 1	Lesson 1	Concepts of Economic Growth and Development
	Lesson 2	Structural Features of Developed and Underdeveloped Countries
	Lesson 3	The Global North and the Global South
Week 2	Lesson 1	Growth versus Development - Some indices of economic development
	Lesson 2	"Modern" Kconomic Growth
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Week 5	Lesson 1	Growth and Inequality
	Lesson 2	Economic Growth and Public Support
	Lesson 3	Measures of Inequality
Week 6	Lesson 1	Introduction to Human Development - Putting People First
	Lesson 2	The Human Development and Capability Approach
	Lesson 3	Utilitarianism, Hasic Needs Approach and the Capability Approach
Week 7	Lesson 1	Measuring Human Development - I
	Lesson 2	Measuring Human Development - II
	Lesson 3	Other Human Development Indices
Week 8	Lesson 1	Multidimensional poverty, MDGs and SDGs
	Lesson 2	Gender 'mainstreaming' and Gender Hudgeting
	Lesson 3	In conclusion

So, let me take you through to some of the lessons that we have done over the period of the last 8 weeks. In week 1, we started discussing about the basic concepts of economic growth and development. And, we also look into what are the structural features of development, developed and underdeveloped countries. We understood that there are certain stylized facts there are certain empirical facts and evidences which have immerged with respect to the developed and the underdeveloped countries. And, that is what we tried to do in lesson 2 of week 1 and we ended week 1 with a lesson on the differences between the Global North and the Global South.

We saw that what are the, what is the what is the thinking that went behind or what is the politics that goes behind categorization of the global north and the global south. So, that was the component of week 1. In week 2 we looked at some of the other indices of economic development. And, we also saw the genesis of the term modern economic growth, how it came to be, who was the proponent of the concept of modern economic growth and, what were the characteristic features of modern economic growth.

In the in week 2, we also started looking at some of the high development theories, how development was being discussed what was the context in which economic development of the poor countries of the world was being discussed.

And that is something that we will revise in sometime. Week 3 we looked at the whole gamut of high development thinking, particularly with respect to balanced growth

models and unbalanced growth models. We also studied in week 3 various proponents of the balanced and unbalanced growth models. And, what are the similarities and what were the differences among them. In week 4 we focused primarily on the Harrod Domar and the Solow growth models, which are that 2 classic models of economic growth, which for the first time started talking about capital accumulation and application of technology for the economic progress.

Week 5, we discussed about growth and inequality, we saw what are the differences or what are the interconnections between economic growth and inequality. In this week we discussed a very important paper by written by the economist named Branko Milanovic, who theorized about global inequality. And, he theorized about how global inequality came to be your what are the perceptions surrounding global inequality, and what does that tell us about the poverty of nations.

In this week we also studied an important chapter from the book political economy of hunger, and we studied about economic growth and public support lead strategies of development. And, other we also took a brief look into various measures of inequalities that are frequently used in studies pertaining to growth and development. With week 6 we started discussing about human development and we saw what are the normative frameworks, what are the difference between positive frameworks, normative frameworks, and predictive frameworks.

And, we also had a discussion with regard to why normative frameworks matter. And, why they should be integrated into a studies on poverty and inequality, before being able to come up with policy conclusions a policy suggestions with regard to how to mitigate the problems of poverty and inequality.

In week 7, we studied about human development indices we saw that there are a number of indices have been computed by the human development reports over a period of the last 20, 25 years. We saw the evolution of the human development concept we saw, what are the different components set have being used with regard to the calculation of D H T I and along with the human development index we also saw the calculation of various other indices, which are used along with the HTI to be able to make a significant interpretations and conclusions with respect to human development issues.

In the last week the week 8, we studied about multidimensional poverty. We studied how it is important or how economist have started moving from looking at specific indicators such as those shown in the by the human development index and how we have moved to various other indicators. Because, the conceptualization of poverty itself is very different, by different people across communities, across regions, and across countries; and therefore, the U N D P has come up with a multidimensional poverty index. And, there are various ways in which the multidimensional poverty index has been calculated, and we saw in detail one form of being able to calculate P M and P I. And, and we also saw what is the how we can also calculate the contribution of specific components to multidimensional poverty index.

And, in this class we also saw the movement of global poverty and inequality related objectives from millennium development goals to sustainable development goals. And, we also so, what are the advantages of being able advantages and disadvantages of this movement from MDGs to SDGs. In the last class of week 8, we studied the basic difference between gender what is gender mainstreaming. We came to understand about gender mainstreaming as a matter of policy and we looked at one policy instrument that is of gender budgeting. And, how gender budgeting qualifies as one form of gender mainstreaming in the larger discourse of growth and development.

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# List of text books Adelman, Irma (1961), Theories of Economic Growth and Development, Stanford University Press. Behrman, J. R., Chenery, Hollis, and T.N. Srinivasan (1995), Handbook of Development Economics, Vol 1 to 3, North Holland. Ray, Debraj (2009), Development Economics, Oxford University Press, New Delhi. Todaro, Michael and S. Smith (2009), Economic Development, Pearson. UNDP (1990), Human Development Report 1990. UNDP (1995), Human Development Report 1995. Sen, Amartya (1977), Growth Economics, Selected Readings, Penguin.

Now, before I move on to some details again with for revising each of these lessons, let me also inform you about the about a list of textbooks, that can be used by the students anyone who is interested in the in studying it at the undergraduate level or at a post graduate level or for research purposes. These are some of the classic books that may be taken up for a study on growth and development of them, the book by Behrman Chenery and Shrinivasan, which is Handbook of Development Economics. There are different volumes to this book I have mentioned only volume 1 of Handbook of Development Economics.

But, this is one of the very basic books that can come in handy for anybody who wants to have a quick overview of how development theories and development models have come to exist over a period of time. That will also give one foundation for research in this area. Debraj Ray, Development Economics that is one of the basic textbooks and development economics that is followed in Indian curricular across colleges and Universities. And, unfortunately there have not been more revised editions of this book.

However, this book is one of the one of the very basic text books, which anybody who is interested in learning more about the structural features of developed and the underdeveloped countries the differences, the implications of the structural differences this book is a must read. Another, basic text which is often used for studies on growth and development is one by Michael Todaro and Stephen Smith. This is also an Economic Development.

And for studying about development issues I recommend taking up human development reports, I have time and again mentioned about the importance of the human development reports, that are published by the United Nations Development Programme of them I have identified 1990 and 95 reports, to be read as some of the most important documents with regard to how capabilities approach and, how the conceptualization of capabilities approach came to be particularly with respect to the human development achievements of countries across the world

Some of the other books which relate to studies on Human Development are by Fukudda Parr, Sakiko Fukudda Parr, and Shiva Kumar readings in Human Development. This is one book which gives you an introduction to the differences between capabilities approach, and some of the alternative approaches of development such as utilitarianism

or the human rights approach, or the or when we talk about different kinds of theories of justice, because human development is always confused as some sort of a theory of justice. However, it is also being projected against the more formalized theory of justice which is put forth by various philosophers such as John Rawls and so on.

So, this is an important reading for all those who were interested in going deeper into the concept of human development or the various approaches of human development. And, what are the contending or alternative approaches to human development? And, what are the differences and similarities among them?

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Along with this list of textbooks, some of the additional texts that I have time and again referred through throughout my lectures. In this course are of Branko Milanovic Charles Jones and John Saul these are 3 important texts, which talk about Branko Milanovic 2016 book talks about global inequality. And, much of what I have discussed in week 5 of this course has been taken from this text book of Branko Milanovic.

I have also referred to a number of papers written by Milanovic in this area. And, I have used all of them integrated all of these materials to come up with the lecture related to inequality, which I have discussed in week 5 of this course. Charles Joneses book on Introduction to Economic Growth, I think is one of the most interesting books which is written, and one of the most well written books on economic growth particularly with regard to the Solow growth model. And, this is a recommended reading for those were

interested in getting into the Solow growth model in more detail; John Souls, Development after Globalization, Theory and Practice for the Embattled South in a New Imperial Age.

This is an important book for those were interested in knowing more about the divide between the global north and the global south. And, what are the different kinds of frameworks within which this divide is being discussed, for those who were interested in following up this issue may follow may read John Souls 2000 book on development after globalization.

There are some other important links for following up on international issues and growth and development the UNDP link is something, which I have provided in various other slides earlier, or the UNDP website has a repository of knowledge with respect to development issues that have been taken up over a period of time.

And, some of the, and most of the reports with regard to human development have been put up on the UNDP website. And therefore, this becomes a very important repository of knowledge with regard to development data bases. The oxford poverty human development initiative this is a website, which I recommend for those who are interested in getting into details about measurement of deprivation or measurement of poverty, because there have various poverty measures and indices have been worked out, particularly since the late 1990s.

And, various groups have come together to refine the different methodologies of measurement of poverty and inequality. And, this website is a repository of documents and workshop materials and videos, which have been done particularly for understanding, what are the different conceptualizations of poverty and inequality by people themselves.

And, therefore, this is recommended link which may be visited by the students who have taken this course. To other important websites in the Indian context which has a very rigorous and thorough discussion on the contemporary issues of development and growth are Macroscan, and network ideas dot org this is group of alternative ideas on economics or what we have come to know today as heterodox economics, which rejects the new classical or the mainstream notion of how development and growth may be perceived,

and it also comes up with a more realistic explanation of how the development and growth correlates function within the Indian economy.

And these are 2 website that may be visited by the students. The food and agriculture organization and World Bank Websites provide a lot of information and data with regard to agriculture, to nutrition, to various statistics with regard to how the economy is across the world are functioning. And, there also good repositories of various data bases, that can be worked on by the research students. So, these are the links of the various websites, which I recommend that you visit if you are interested in carrying out work related to development and growth issues in any country context. Now, let us move to an overview of the lessons that we have done in each of the week in the lesson, the very first lesson of first week of this course.

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### Week 1 Lesson 1

- A working definition of 'economic growth'
- o Circular flow of income and output in the economy
- National income estimation Product method, Income method and Expenditure method
- o National income concepts
- ✓ Gross National Product
- ✓ Net National Product
- ✓ Gross Domestic Product
- ✓ Net Domestic Product
- ✓ Personal disposable income
- ✓ Per capita income
- o Real and nominal GDP: adjusting for inflation
- o GDP at market price and factor cost: distributive shares within the economy
- o Purchasing Power Parity: used for international comparisons of price and income

We started a course by defining what is economic growth? And, we understood that there is a clear distinction being made between growth and development, because growth has been identified or defined as increase sustain rise in incomes over a period of time. And to be able to understand this issue of sustained rise in incomes over a period of time they began picturising a simple economy consisting of 2 sectors, the household sector, and the firm sector, and howthere is a flow of goods and services between the household sector, and the firms, and how corresponding correspondingly. There are also flows of incomes of flows of expenditure between these 2 sectors of households and firms.

Therefore, we came up with this understanding of circular flow of income and output in the economy. And, because there is circular flow of income and output or circular flow of expenditures within sectors, we know that there is a concept of national income. So, in this lesson one we studied what is national income, how is national income measured. And, some of the mainstream techniques of measuring national income is by determining what is the gross value of output or a what we generally know as gross domestic product.

So, in this lesson we studied the definitions of what is gross national product, what is gross domestic product. We also studied some of the variants of other national income concepts such as net domestic product, net national product, personal income, personal disposable income. We all also saw the differences between nominal income and real income and how real income adjust for inflation, and to be able to come up with a more realistic interpretation of how the economy is performing over a period of time. We saw that how real income concepts are much more useful in the nominal concepts. So, adjusting for inflation becomes one of the important characteristics of being able to see how the economy has performed over a period of time.

We also got introduced of the concept of purchasing power parity in this lesson of this week. So, we basically saw how international comparisons of price and income are made between countries, we saw that the purchasing power parity can also be interpreted as a form of a price index, which is basically trying to peg a countries price with respect to us dollar. And, then see how much of goods and services or how much of baskets or what basket of goods and services can be purchased with 1 US dollar. And, particularly with respect to different countries across the world and we saw that how purchasing power parity conversions are made for specific country currencies to be able to come up with more meaningful comparisons of incomes across countries.

So, in this lesson we got introduced the basic concepts of how to define economic growth, how to understand the measurement of economic growth that is through the measure of gross domestic product. We saw that there are 3 basic methods of being able to estimate national income the product method, the income method, and the expenditure method. And, in the final analysis we also saw that because of the circular flow of incomes and goods and services. How the valuation of income bit valuation of output or income based upon all of these 3 method should be equal to each other.

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### Week 1 Lesson 2 Limitations of using GDP estimate as an indicator of development World Bank's country classifications by income (low income, lower middle income, upper middle income and high income) Country ranking by GDP by market exchange rates and purchasing power parity The vocabulary of developing countries Three Worlds, One planet (first, second and third world) Distribution of world population by the Triad, Third World, and Central and Eastern Europe + Turkey and Central Asia Distribution of global GDP Global GDP per inhabitant Occupation and production structure Value added in agriculture sector as precent of GDP Employment in agriculture sector as precent of GDP Employment in agriculture sector as precent of GDP Employment in gariculture sector as an inumber of gariculture sector as an inumber of gariculture sector a

In lesson 2 of week 1, we studied the limitations of using GDP estimate as an indicator of development. We discussed in some detail with regard to how the care economy, which is one of the important sectors for in terms of contributing to the quality of human capital and in an economy, is completely left outside of the valuation of GDP within a country. And therefore, that becomes one of the limitations of using GDP as a representative indicator of economic growth..

We also saw that the informal sector is left out environmental damages do not enter as a debit into the GDP calculation. So, while we did see that GDP is a significant indicator of economic growth. We saw that it is also under presenting various individuals and groups of individuals within a within a country simply, because of the fact that they are not being their numbers or their contribution to the economy is not being captured in the GDP estimate.

We also saw that even if we are being able to calculate GDP per capita or GDP per person in a country. Even this GDP per person is not being able to deal with the inequalities that exist within a country. And, the story of for the growth story of the 1990s or the post 1990s has clearly shown us. Through various experiences of different people across the world that inequalities have grown unprecedentedly.

So, in that sense the GDP indicator suffers serious limitations with respect to being able to tell us how people across countries are living on a daily basis. In this lesson we also

got introduced to the world banks country classification of income and we saw how the concept third world came to be, and we also saw the differences between the developed countries in the category. The difference in categorization between the developed countries in the developing countries, who constitute the third world, who constitutes the first world, what was the second world, and why the second world concept is no longer being used.

And, we also saw that how the third world or the developing countries are mostly what is considered to be the third world of the global south. And, then we also went on to see the structural characteristics of these countries, who are in the global south? We saw their contribution of agriculture to total GDP; we saw that employment in agriculture percentage of total employment, the human development index performance of the global south reserve with the global north, and the percentage of females in labour force.

So, we found that the value addition in agriculture sector as percentage of GDP is higher for the global south than the manufacturing sector. So, and we also saw that the employment in agriculture is very high as percentage of total employment in the global south than in the global north. Percentage of female in labor force is much less compared to in the global south compared to what we see in the global north. And, the proportion of organization is also for hire in the global north than in the south. Within demographic characteristics we saw that the fertility rates are much higher between the developing countries and the developed countries.

Even within the global south we saw that the from based upon the facts and figures that we collected from the world development indicators, we saw that countries in Sub-Saharan Africa have much higher fertility rates than those of the other countries in the develop in the developing south. Now, one of the implications of this that we also discussed is that, the dependency of population on the working force on the work force is very high in Sub-Saharan Africa countries than in the rest of the developing countries in global south. And, that also speaks volumes about the rates of economic growth rate of dependency of the population in these countries.

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	Traditional North-South Approach	Bretton Woods Paradigm	UN Paradigm
Worldview	Bipolar division between rich and poor countries	Inclusive globalization  Economic integration	Two-tiered globalization  Social exclusion
Geography of Poverty	Developing countries	Least-developed countries	Developed countries and developing countries
Determinants of Poverty	External factors (economic environment dominated by developed countries	Internal factors (non 'market-friendly' economic policies	Internal and external factors (conflict between economic objectives and social needs)
Political Platform	New international economic order	Liberalization of markets  Competitiveness of firms	Sustainable human development Inter-generational equity

In the last lesson of week 1, we studied 3 approaches to world poverty. We saw we basically discussed about the discussed in detail about the issues of global north and global south, but in the context of globalization. We saw what were the prescriptions of globalization, what were the prescriptions of the World Bank of the Bretton woods institutions with respect to globalization and, what were the discontent with respect to globalization coming from the emerging from the south. And with this in the backdrop we also saw how the approaches to studying world poverty has changed over a period of time.

And, then we zeroed on 3 approaches one was the traditional north south approach. We also saw the Bretton Woods Paradigm and the competing UN paradigm with respect to conceptualization of world poverty. So, based upon the traditional north south approach, the world view was that there is a bipolar division between rich and poor countries, we have rich countries and we have poor countries and they has to be separate set of policies for the rich countries or the poor countries. And, in a way the poorer countries need to emulate the richer countries to be able to reach the kind of development that has been experienced in the so, called richer countries of the world.

The Bretton Woods Paradigm worldview was to look at development in terms of inclusive globalization, and greater integration of markets, great economic integration deregulate the markets of the developing countries and bring about more in economic

integration by increasing competition among the market forces. Whereas, the UN paradigm looked at globalization as a 2 tired process, and while the UN paradigm did not de write the importance of market integration or economic integration of across countries. It did talk about social exclusion; it did talk about a large majority of population that are being excluded from the benefits of the so, called economic integration or market liberalization processes.

So, the UN paradigm was moving more towards social exclusion policies and how those people who are being excluded from the market forces need to be included through various kinds of government welfare programs and so on. With respect to the geography of poverty the traditional north south approach focused more on the developing countries, by prescribing policies for the developing countries, more in line with what the developed countries had been doing. The Bretton Woods Paradigm focused on the least developed countries whereas, UN Paradigm was talking about inequality in both the developed countries and the developing countries.

So, the UN Paradigm brought a fresh outlook to how poverty needs to be approached? Because, while absolute poverty in the developing countries was very high, relative poverty in the developed in the developed countries also show that there are very there are there is a section there is a sizeable section of population in the developed countries was being left out of the benefits of development.

So, in terms of Geography of Poverty UN Paradigm was focusing on both the developed and the developing countries. In terms of determinants of poverty the traditional north south approach focused on external factors, or economic environment dominated by developed countries. The Bretton woods paradigm focused on market friendly economic policies and the UN paradigm was focusing on the conflict between economic objectives and social needs.

I have in the earlier classes mentioned about the UN HTR report and globalization or adjustment with a human phase. So, the UN paradigm brought a fresh perspective to do to development thinking by saying that while markets are important, one also needs to focus on the conflict between economic objectives and social needs because there is a tradeoff. There is a tradeoff between meeting economic needs and creating and bringing about social exclusion.

So, there is a clear divergence between meeting economic needs and objectives in the social needs. And, there needs to be lot of policy focus with respect to these factors. In terms of a political platform the traditional north south approach was more of a new international economic order Bretton Woods paradigm spoke of liberalization of markets and competitiveness of firms whereas, the UN Paradigm was talking about sustainable human development and intergenerational equity.

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In week 2 of this course I brought in some of the alternative indices of economic development, but I did that by introducing the fact that human development and not just growth is important. And, I tried to bring in the importance of looking at indices of development by harping on what the very first human development report of 1990; told us about the glaring inequalities between the developed and the global north and the global south, the developed countries and the developing countries.

One of the conclusion that was that that was received, by the by the different countries was that the countries across the world had made significant progress in human development, human development achievements are increased, but the fact also remained at inequality levels had also increased unprecedentedly.

And, therefore the there was a need to look beyond the concept of GDP growth rates, beyond the concept of GNP or per capita income growth rates and, notwithstanding the fact that they were limitations to each of these measures of economic growth. So,

therefore, in this lesson we discussed about some of the earlier indices such as the physical quality of life index, the P Q 1 I index. We also look at the gross national happiness index which is computed by Bhutan.

We looked at the green GDP concept which has been worked on in many countries and environmental damages are being increasingly considered as a part of the development exercise, they have being considered as a debit in GDP calculations. And, we also looked at some of the we had an overview of some of the other sustainable development indices that can also qualified to be being able to capture development in different countries.

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Week 2 Lesson 2

Historical growth rates of the now industrialised world vis-à-vis the present day growth rates
Labour productivity seems to have increased from the late 19th century onwards.

Today, we enjoy vastly improved standards of living and consumption of goods and services
Importance of Prof. Simon Kuznets and his conception of "modern" economic growth

Kuznets' reflections on six characteristics of modern economic growth

a. High rates of growth of per capita output and population
b. High rates of increase in total factor productivity (TFP)
c. High rates of structural transformation
d. High rates of social and ideological transformation
e. International economic outreach
f. Limited spread of economic growth (large parts of the world still under-developed)

In lesson 2 of this week, we got introduced the concept of modern economic growth. We saw the Role of Economist Professor Simon Kuznets in being able to empirically test, the some of the in being able to bring out some of empirical facts with regard to how countries have been developing over a period of time.

And, Kuznets reflected on 6 characteristics of modern economic growth, that modern economic growth is characterized by high rates of growth per capita output and population, rates of increase in total factor productivity, rates of structural transformation, high rates of social and ideological transformation, limit international economic outreach and limited spread of economic growth.

Simon Kuznets based is research was based in the USA, but his study was based on the economic performance of the highly industrialized countries of the world. And, he came in and said that the one of the characteristics of modern economic growth has been the very high increase in total factor productivity. And, and that was not just labour productivity, but factor productivity with respect to all the factors of production. And, he saw the important role played by technology in being able to bring about modern economic growth.

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With the Kuznets ideas and modern economic growth, we made a transition into understanding what were the dominant trends in development thinking. And that is what we did in lesson 3 of week 2. We saw what was the major trends in development thinking that dominated the research on development and growth, whether it was in economics or in other social sciences.

And, corresponding to the trends and development thinking I also discussed about the chronology of appearance of the various economic growth models. The trends and development thinking that happened was followed more or less this path you know starting from the 1900s there was lot of dominance of development as universal history, then in the 1950s. And, it went on till about the 1960s and the 1970s there was lot of focus on economic growth. And, that was a time when various economic growth models started coming into place. There was also lot of talk with regard to how the developing

countries can catch up with the developed countries by following similar models of economic development

The 1990s was a clear shift in development thinking with compared to the previous decades, because in 1990s started delving deep into the issues of poverty reduction, by on the and the and the focus was more on progressive policies and legislations carried out by governments across the world based upon the policy suggestions made by the UN paradigm. With respect to the chronology of economic growth models, we looked at classical models of economic development, which I was talking about linear stages of growth model, structural change models, international dependence models, new classical counter revolution models, and then we have the contemporary growth model such as the new growth theory.

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### Week 3 Lesson 1

- Basic concepts: Who saves? Who invests? Marginal private costs, Marginal external costs, Marginal social costs, externalities, external economies
- 2. Balanced growth doctrine as proposed by Ragnar Nurkse, Rosenstein Rodan and Arthur Lewis
- Challenges posed by the Unbalanced growth strategists; major proponents being Albert Hirschman, Hans Singer, Paul Streeten among others
- Hirschman's thesis of creating imbalances in the economy through creation of convergent series of investments or divergent series of investments
- Following the path of development by creating excess capacities through social overhead capital or shortages by investing in directly productive activities taken by the private firms.
- 6. Total linkages should determine the size and amount of investments: backward and forward linkages

In the first lesson of week 3 we embarked into the high development theories. We looked into details of the balanced growth models and unbalanced growth models. We saw that one of a limitations of the high development growth model was a lack of mathematical precision, or mathematical formulation of how the growth chart growth can be chart the growth chart can be can be formulized for the developing countries of the world, but in this lesson we got introduced to the ideas of some of the very famous balanced growth theory such as Ragnar Nurkse. We studied the ideas of Rosenstein Rodan and Arthur

Lewis; we saw what were the challenges posed by the unbalanced growth strategies to the balanced growth strategies.

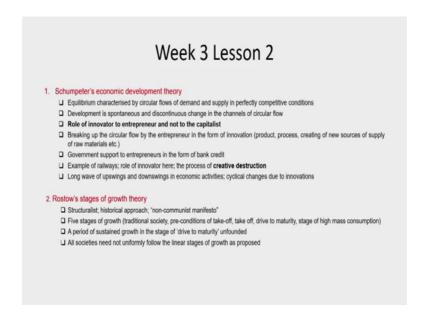
We saw the major proponents of unbalanced growth model such as Albert Hirschman, Hans Singer, and Paul Streeten. We studied in detail the ideas of Albert Hirschman with regard to how unbalanced growth should take place snd, how investments in social overhead capital will lead to a convergent series of investment and how that will lead to growth.

So, we studied Hirschman's thesis of creating imbalances in the economy by creating convergent series of investments or divergent series of investments, then we saw how following the path of development by creating excess capacity through social overhead capital shortages by investing in directly productive activities taken by the private firms.

So, we studied the concept of linkages we studied the study concept of backward linkages and forward linkages. And, we also understood Hirschman thesis, who said that the for being able to identify which is the best process of development, we need to see what is the total linkages. By adding up the backward and forward linkages and all those investments, which show the maximum total linkages need to be taken up first social overhead capital needs to be taken up first in those domains such that excess capacity is created, and that later on will lead to the lead to investment being taken up by the private firms.

In this lesson we also studied some of the very basic economic concepts with regard to what is savings, what is investment, we studied the basic concepts of marginal private cost, marginal external cost, marginal social cost. So that we could understand what are externalities and, how externalities are very important to the concept of investments in the high development thinking.

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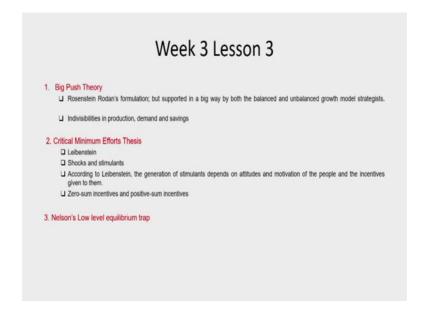


In a week 3 lesson 2, we continued a study on high development thinking and the focus here was on Schumpeter's economic development theory and Rostows stages of growth theory. Schumpeter was an important Schumpeter's theory was an important addition to high development theory because he was talking about the role of innovations carried out by the entrepreneur and not the capitalist. He was making a distinction between the role of capitalist and the role of entrepreneur. So, far before the advent of Schumpeter theory to development thinking, the focus was primarily on the 4 factors of production land labour, and other 3 factors of production land labour and capital.

But, with the advent of Schumpeter's theory of economic development, the focus moves to the role of innovations, whether it is of technological innovations or product innovations or innovations in terms of ideas, entrepreneur was playing an important role with regard to increasing investments and increasing capital accumulation. And, he made a very clear distinction between the role of entrepreneur and role of a capitalist.

And, the different roles provided to capitalist and entrepreneur and entrepreneurs could be credited to the theory provided by Schumpeter. Schumpeter also was talking about business cycles within the economy and he also spoke about the process of creative destruction which was important for being able to carry out any economic development.

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We ended week 3 with studies about big push theory and the critical minimum efforts thesis, we concluded the thinking with respect to high development theory. And, we saw one of the things that we saw or I underlined with respect to the high development theories was the critical role critical role played by the governments. One of the conclusions of the high development theories was that, whether you carry big push theory, whether you carry big push in investments, whether you have balance growth doctrine or an unbalanced growth doctrine, whether Schumpeter's, whether it was Schumpeter's theorization on innovations or creative destruction. The underlying factor with regard to the high development theories was the critical role of the governments.

All of these high development theories provided a bigger role to the government in being able to decide, what are the different kinds of investments that need to be carried out. And, the role of governments and thus there is a clear distinction between these early growth models and the later growth model such as Harrod Domar and Solow growth model, because role of government was been derided in the new growth models.

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### Week 4 Lesson 1

- Investment is at the centre of steady and stable growth: it generates income and productive capacity of the economy.
- Increased capacity can result in greater output or greater unemployment depending on the behaviour of income.
- Conditions can be stated for the behaviour of income that will allow full employment to be maintained over time. These conditions specify the growth rates, which can ensure full employment of labour and full utilisation of capital stock.
- □ These conditions, however, designate only a steady line of growth for the economy. The actual growth rate may differ from the warranted rate of growth. If the actual growth rate is greater than the warranted rate of growth, economy will experience chronic inflation. If the actual growth rate is less than the warranted growth rate, the economy will slide towards chronic deflation.
- Business cycles are viewed as the deviation from the path of steady growth. These deviations become self-aggravating and self-cumulating, but are limited in the upward trend by the "full employment ceilling" and in the downward direction by the floor of autonomous investment and consumption.

So, in week 4 we had 2 lessons in lesson 1, we studied the Harrod Domar growth model and lesson 2 we studied the Solow growth model. And, in Harrod Domar growth model we saw that investment was at the centre of study and stable growth.

The question that we were inquiring based upon the Harrod Domar growth model was what is a steady and stable growth? How much income it generates and what is a productive capacity of the economy? So, we studied that increase capacity can result in greater output or greater unemployment depending on the behaviour of income; we studied the different conditions that can be stated for behavior of income that will allow full employment to be maintained over time. And, we saw that these conditions designated only a study line of growth for the economy. And, based upon Harrod Domar growth model we saw that we came up with different concepts of growth rates, he was talking about the actual growth rate and the warranted growth rate.

And, the one of the conclusions were that was that these growth rates may differ. If they actual growth rate is greater than the warranted rate of growth and economy will experience chronic inflation and vice a versa. If actual growth rate was less than the warranted growth rate they would be chronic deflation. So, some of these concepts of inflation and deflation and how it affects the growth rate of a country was discussed as part of the Harrod Domar growth model. And, based upon the Harrod Domar growth model we also see how business cycles can be viewed as deviation from the path of

steady growth. Through Solow growth model we will tried to answer the basic question of growth and development.

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### Week 4 Lesson 2

How does the Solow model answer the key questions of growth and development?

First, the Solow model appeals to differences in investment rates and population growth rates and (perhaps) to exogenous differences in technology to explain differences in per capita incomes.

Why are we so rich and they so poor? According to the Solow model, it because we invest more and have lower population growth rates, both of which allow us to accumulate more capital per worker and thus increase labour productivity.

Second, why do economies exhibit sustained growth in the Solow model? The answer is technological progress. Without technological progress, per capital growth will eventually cease as diminishing returns to capital set in. Technological progress, however, can offset the tendency for the marginal product of capital to fall, and in the long run, countries exhibit per capital growth at the rate of technological progress.

This was an important lesson, because the Solow growth model is considered to be one of the classic models of growth, there were 2 things that we were primarily trying to see through the Solow model first. How the Solow model appeals to differences in investment rates and population growth rates and to exogenous differences in technology and how that can explain differences in per capita incomes.

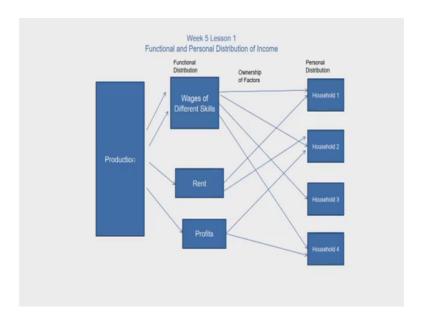
So, we were asking the question, why are some countries rich and why are the others poor? And Solow's answer to this question was that because we, because the richer countries invest more and have lower population growth rates. And, because of more investments and lower population growth made, growth rate, their rates of accumulation of capital per worker is much higher and therefore, labour productivity increases.

And therefore, labour productivity increases and more investments and lower population growth rates were critical to the development of the richer countries. And, this is something that was being posed some kind of a model for the growth of the developing countries. So, the second question that Solow we were trying to answer to the Solow model was why do economies exhibit sustain growth in the Solow model. And, the answer to that was technological progress as was pointed out by Solow, without

technological progress per capita growth eventually ceases as diminishing returns to capital sets in.

So, technological progress more rates of capital accumulation, lesser population growth rates, came to be understood as sum of a stylized facts with regard to how, why the richer countries have grown unprecedentedly and they have had sustained rates of growth for over a period of time.

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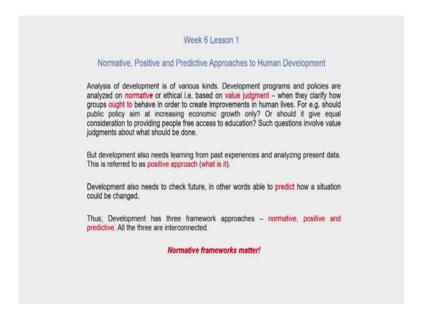
In week 5 we the focus of our discussion was on inequality. We saw that there is economic reason and there is a there is an ethical reason and there is a functional reason for studying inequality. One of the ethical reason for studying inequalities of course, the idea of social justice with regard to egalitarianism in a society, but they were there also functional reasons to studying inequality within a country, because when we are looking at different factors of production, we are looking at distributive shares of population within a country.

Then, we need to see what is the distribution of resources across different sectors. So, that it gives us more meaningful interpretation of how to view economic growth. So, in this week we studied we dealt in some detail into the issue of inequality, we first look at looked at what are the very basic principles of studying the economic principles of studying inequality, we also got introduced to Milanovic paper on global inequality. And, we saw that how the population size and the size of the country needs to be taken into

account while studying a global inequality. And, we also saw some of the measures of inequality, which are used frequently in the study of growth and development such as the Lorenz Curve and the Gini coefficients.

And, the Milanovic paper on global inequality was also based upon the Gini coefficients calculation based upon statistics collected household survey data collected from different countries of the world. So, Milanovic paper was some provided us some sort of a shift with regard to how inequality world inequality need to be seen not in terms of the measure of GDP per capita, but in terms of Gini coefficient calculated with for calculated for measuring inequality among household incomes and household expenditures across countries.

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In week 6, we started discussing the human development approach; we saw how the human development approach is contending with various other growth approaches. So, we moved from growth models to the human development approach.

We saw the importance of normative frameworks and, how the very conceptualization of development changes when we take various normative frameworks into account. We discussed an example from China, the case of pollution from China. And, we saw that how while the Chinese GDP he has increased and China has received the status of being one of the largest growing economies of the world.

We, also saw the environmental damages done to a city in China a particular lake being environmentally damaged, because of the kind of manufacturing process is taking place in the small in the town. And, how the quality of life of people have been affected, because of the environmental damages, and then we try to conceptualize how do people think of development? Is it only richness in terms of increasing incomes or it is also or can it also be conceptualized as richness in terms of leading a better quality of life, in terms of achievements of different human development indicators.

And, we saw that how a development thinking can be reframed based upon an integration of all of these frameworks the normative positive and the predictive frameworks.

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### Week 6 Lesson 2

- Objective of sustaining high economic growth rates unit of analysis is the economy
- When we shift attention to an approach of development in which people's choices are expanded expanding their freedoms – unit of analysis is the person
- So, two shifts are taking place when we alter our conceptualizations of development: first, the analysis shifts from the economy to the person, and second, the currency of assessment shifts from money to the things people can do and be in their lives, now and in the future
- So normative frameworks and ideas about what matters have enormous practical implications
- ☐ The people-focused approach, is also known as the human development and capability approach.

We went into more details of the capabilities approach the conceptualization of capability approach, how the conceptualization of development changes when our unit of analysis changes from the economy to that of people. So, when we are considering growth of incomes or economic development because of rise in incomes, our unit of analysis is the economy.

And therefore, we are trying to access, the total amount of goods and services produced in the economy and how the volume of production changes over a period of time? And, that is a valuation of economic growth, but when we when the conceptualization of development changes the unit of analysis also shift from being an economy to a person or a group of persons or a group of community or community.

And, when the very conceptualization of development changes, then we see that the correlates of development also changed. We are then not asking, what is the volume of production of goods and services in a given period of time in an economy, but we are asking the question with regard to held with regard to education, with regard to incomes of households, with regard to intra household distribution of resources and so on.

So, the questions with regard to correlates of development change, when the conceptualization of development itself changes. And, that was the focus of week 6 of this course, where we discussed in detail about the human development approach Amartya Sen's notion of capabilities approach and how that is as that is at the very basis of understanding human development.

In this week we also got introduced the differences between human development approach basic needs approach and capabilities approach.

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	Week 6 Lesson 3					
	Feature	Basic need approach	Capabilities approach			
1	Conceptual basis	People must have minimum subsistence	People should have equal freedom to choose their valued ways of life			
2	Poverty definition	Deprivation of consumption	Deprivations of opportunities			
3	Poverty reduction	Ensure adequate access to consumption	Ensure equal opportunities so that people can make choice			
4	Policy Objectives	subsistence	Empowerment			
5	Power relationship	Paternalistic: little scope for voice of the poor	Deliberative: people share concerns and shape policies			
6	Level of application	Generalized: but allowed regional diversities	Multiple levels, but emphasis on localisations.			

So, these were some of the differences that we highlighted on a conceptual basis, poverty definition, poverty reduction, policy objectives, power relationships and level of application, while utility (Refer Time: 49:20) focus was more on quantity the numbers of people who have experience richness of incomes the basic needs approach was a

focusing on the minimum subsistence received by people, capabilities approach lead a lot of importance to the freedom that people can have and the number of things that people value and have reasons to value in a given during their lifetime.

So, the conceptual basis of basic needs approach was the people must have minimum subsistence, for capabilities approach people should have equal freedom to choose their valued ways of life. In terms of poverty definition the basic needs approach focus was on deprivation of consumption and the capabilities approach was on deprivation of opportunities.

And, this is one of the important distinctions that we were making when we studied about the capabilities approach and the significance of looking at capabilities approach visa we utilitarianism or the basic needs approach, which are more ingrained in the concept of economic growth. So, while in basic needs approach the focus is on what are the deprivation with respect to consumption capabilities approach was talking in terms of deprivations in terms of opportunities received by people. DNA talked about ensuring adequate access to consumption C 8 talked about ensuring equal opportunity; so, the people can make choices. In terms of policy object is DNA had a more subsistence oriented approach, capabilities approach, and a more empowerment related approach in terms of power relationship.

And, this is one of the import things that we were trying to drive through the study of capabilities approach. The alternatives to capabilities approach that we had we that economist studied. So, far for example, the income approach of the basic needs approach had a more paternalistic understanding of how to view poverty?.

So, we are trying to understand poverty through our lenses, poverty of households, poverty of nations to our lenses whereas, in terms of capabilities approach it is more deliberative people share concerns and shape policies. So, it is not armchair policies armchair policy decisions which are being made there. Here peoples conceptions about how the view their property or how they view the living conditions are taken into account for being able to come up with more effective policies.

In terms of the DNA the level of application is more generalized and it does not allow for regional diversities whereas, the capabilities approach allows for emphasis with respect to localizations takes local diversities into account. And therefore, it is applicable at multiple levels.

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Week 7	Lesson 1
An Illustration	
Maximum life expectancy	78.4
Minimum life expectancy	41.8
Maximum adult literacy rate	100
Minimum adult literacy rate	12.3
Maximum real GDP per capita (log)	3.68
Minimum real GDP per capita (log)	2.34
Kenya life expectancy	59.4
Kenya adult literacy rate	60
Kenya real GDP per capita (log)	2.90
Kenya's life expectancy deprivation is	$\frac{78.4 - 59.4}{78.4 - 41.8} = 0.519$
Kenya's literacy deprivation is	$\frac{100.0 - 60.0}{100.0 - 12.3} = 0.456$
Kenya's GDP deprivation is	$\frac{3.68 - 2.90}{3.68 - 2.34} = 0.582$
Kenya's average deprivation is	$\frac{0.519 + 0.456 + 0.582}{3} = 0.519$
Kenya's Human Development Index (HDI) is	1 - 0.519 = 0.481

Starting week 7, we studied various human development indices, we began with the human development index the very basic human development index has was taken up by the 1990 HTR. We took example of Kenya and we calculated the human development index, we saw how arrange equalization method of calculation of deprivations is first undertaken and then the human development index is calculated.

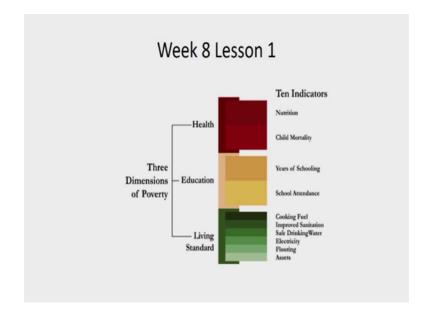
We saw the difference between achievements and deprivations, we saw that the HTR calculates the number of indices and the achievement index of HDI is just one among a whole gamut of indices that are calculated, with respect to deprivations. So, starting from week 7 we look that the achievement indices and the deprivation indices.

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Week 7 Lesson 2/3								
TABLE 1 HDL, GDL, HPI-1, HPI-2—same dimensions, different indicators  Participation Index Longreity Knowledge Decent standard of living or exclusion								
но	Life expectancy at birth	Adult literacy rate     Combined     enrolment ratio	Adjusted per capita income in PPP US\$					
GDI /	Female and male life expectancy at birth	Female and male adult literacy rates     Female and male combined enrolment ratios	Female and male per capita incomes (PPP US\$) based on female and male earned income shares					
HP-1 For developing countries	Probability at birth of not surviving to age 40	Adult illteracy rate	Deprivation in economic provisioning, measured by:  1. Percentage of people without access to after water 2. Percentage of people without access to health services. 3. Percentage of children under five who are underweight	-				
HPI-2 For industrialized countries	Probability at birth of not surviving to age 60	Adult functional illiteracy rate	Percentage of people living below the income poverty line (50% of median disposable household income)	Long-term unemployment rate (12 months or more)				

So, while HDI was HDI was an achievement index the GDI, which talked about differences between achievements between male and female. The human poverty index calculated for developing countries UN develop industrialized countries was looking at various kinds of deprivation faced, and how work deprivation indices and achievement indices are seen together to be able to come up with a better picture of development of different countries of the world.

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Starting week 8, we look at the multidimensional poverty index we saw that the multidimensional poverty index unlike the HDI has more indicators the latest MPI that we have that is calculated by the UNDP, taken from the methodological exercises carried out by various scholars with the oxford poverty human development initiative have 10 indicators. And, there is a precise methodology there has been worked out with regard to to how the MPI needs to be calculated based on household survey data, and this is one of the important shifts that took place with regard to measurement issues, while the HDI is based upon aggregated data which is collected at the national level.

The MPI is based upon data which is collected at the household level. So, it is necessarily based upon household level data. And therefore, is gives a much clearer and a much reliable picture with regard to human poverty.

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# Multidimensional and intersectional understandings of poverty Gender differences in the priorities expressed by poor people, differences that reflect the roles and responsibilities assigned to men and women by households and communities. Women's greater workloads giving rise to the concept of 'time poverty'. Quantitative assessments have shown that it is the intersection, rather than the addition, of different kinds of inequality, vertical as well as horizontal, the fact that these inequalities overlap, reinforce, and exacerbate each other, that explains some of the most acute forms of disadvantage, what is referred to as "extreme poverty". Gender inequality often cuts across both vertical inequalities and horizontal inequalities including race and caste. Its intersection with these other forms of inequality means that it is women and girls from the poorest caste, ethnic, and racial groups who have poorer levels of health, nutrition, and education, and very often suffer higher levels of violence than other women, including women from similarly poor backgrounds.

In lesson 2 of week 8, we looked at the Multidimensional and intersectional understandings of poverty, this was this came across in terms of a general lecture as to how there is a gender dimension to poverty and, how the conceptualization of poverty differs across gender. And, in this context we discussed in some detail with regard to the feminist contribution or the feminine the contribution of feminist literature to how to look at poverty. We saw what are the differences in the approaches of women in development and gender approach to poverty.

We also saw we also took up the instrument of gender budgeting as one of the as one of the instruments of how the discourse on gender has been mainstreamed in development. And therefore, we also understood the concept of gender mainstreaming.

So, this in a nutshell was what we have covered in this course. The scope of this course is vast and as I have already mentioned this course was taken up at a very introductory level, such that a some of the very basic concepts and ideas that goes around in being able to conceptualize a debate on, what is development, what is growth was conceived as a part of this course. And, for those interested in taking up research of further studies in this course may kindly go through the list of text books and articles that I have mentioned and I hope you have enjoyed this course.

Thank you.