# Human Capital Flight: The Cause of Underdevelopment

Achyut Wagle\*

Since the beginning of development discourse based on dualism of development versus underdevelopment, particularly since the end of World War II, a large number of explanations and theorized school of thoughts have come to fore. Despite so many theories and models about development in place, so much technological and scientific advancement mainly in communication and transportation, the extent of underdevelopment is more rampant than ever before. The income of the richest 1 percent (50 million) is the same as the income of the poorest 60 percent (2.7 billion people) of the world. More than half of world population survives by less than US\$ 2 a day. Apparently, these development theories have practically failed to address the problem of underdevelopment of the world. This reality--both in development discourse and development practice—make it imperative to rethink, mainly to specifically point out the causes of seemingly inescapable trap of poverty and underdevelopment. The recognition of the human capital flight as the most crucial cause of underdevelopment provides new basis for development discourse. On the contrary, Nepal has remained as one of the highly underdeveloped countries, the reason of which could be attributed to human capital flight.

#### I. BACKGROUND

Development and underdevelopment are relatively new concepts that were debated mainly after World War II. However the concept of industrialization, increased production and productively, and export trade as means to increase the prosperity of any nation-state were recognized generally with the advent of the state and particularly after the Industrial Revolution.

In the late 1940s and early '50s, development generally meant the replication of the experiences of industrialized countries. This included the application of know-how through the assignment of the experts, increased industrial output and export trade,

Public Relation Officer, Nepal Rastra Bank, E-mail: pro@nrb.org.np

expansion of education, development of infrastructure and distribution of welfare schemes by the state.

During early period of development efforts or in development discourse, there was little discussion on the causes and nature of development or lack of it, i.e. underdevelopment. Only in more recent times has the viewpoint of developing countries gained momentum in development theories (Kuhen, 1987). By now, there are a large number of explanations and theorized school of thoughts that underscore the causes of underdevelopment and have made attempts to bring the models of development into practice.

Interestingly, despite so many numbers of theories and models about development in place and so much technological and scientific advancement primarily in communication and transportation, the extent of underdevelopment is more rampant than ever before. The income of the richest 1 percent (50 million people) is the same as the income of the poorest 60 percent (2.7 billion people) of the world. <sup>1</sup> More than half of world population survives by less than US\$ 2 (ppp basis) per day.<sup>2</sup>

In other words, these development theories have practically failed to address the problem of underdevelopment, whereas development theories have been treated as the yardsticks to justify the development policies adopted mainly by the so-called developed countries and replicated by the underdeveloped ones. This scenario is enough to suggest that, these theories on economic development are rather lopsided than holistic in approach and, thus, many of such theories have proved to be practically ineffective to the extent of being able to address the cause of underdevelopment.

These lacunae in development theories are inherent largely due to three reasons:

- In the process of establishing a simple concept into a theory, statistical methods or econometrics are so coercively employed that the benign concept emerged out of purely humanistic consideration deflects, sometimes in unimaginable degree, by the time it is empirically established. Debates on economic development have been more relative to models than their actual scope of contribution to the development itself. In this process, the facts that economics and economic development are more of the issues of human concern than mathematical equations are completely forgotten.
- The major drawback of this process is: if something is to be statistically established, one must rely on existing phenomena that is measurable, which is bound to be descriptive than prescriptive. It can only reflect in what has happened but cannot generally recommend the problem solving mechanism embodying intrinsic intervening strength.
- Most of development theories and models have focused more on measuring the prosperity/poverty, equality/inequality or development/underdevelopment and formulation of equations and diagrams. Instead, their focus should have been on

<sup>1</sup> This is taken from http://www.bbc.co.uk/news, April 14, 2008. <sup>2</sup> "There are still around 1 billion people living at the margins of survival on less than US\$1 a day,

with 2.7 billion—40 percent of the world's population—living on less than US\$2 a day." (UNDP, 2007, p. 25). The report also notes that the alleviation is limited mostly to parts of Asia.)

- intervening in the existing issues and practices that are so far unable to address the status of underdevelopment. For example, a large number of renowned economists and development thinkers have measured and analyzed the income inequality on country-to-country or region to region bases, but only very few have recommended effective way out to distributive justice so that such gaps could be effectively abridged.
- The practices of dealing with the issues of poverty and underdevelopment in terms of various forms of averages, inductions and deductions has been highly misleading vis-à-vis actual realities and, very often cover-up the gravity and magnitude of the problem. Some economic concepts have accepted 'family as the basic economic unit' (Roberts, 1967). But in practice, individual nation-state is still treated as the basic economic unit in international dealings, national policy formulation and more importantly in measuring the economic performance. Therefore, the concept of family as economic unit normally remains euphemistic while adopting national policies on poverty reduction and providing international development assistance. This eventually leads the development process that does not directly interface with the human needs at the grassroots.

## II. RETHINKING DEVELOPMENT

These phenomena—both in development discourse and development practice--make it imperative to rethink, mainly about the causes of underdevelopment. This rethinking among others may need to redefine the development itself, to specifically point-out the causes of seemingly inescapable trap of poverty and underdevelopment, and while discussing development, need to gauge the appropriateness of the models not merely on the basis of mathematical or graphic validity but on the basis of their capacity to actually attack on the problems on the ground.

As it is, development already is one of the over defined terms, though it still remains to be completely comprehensive in meaning and, ironically, not a single definition has proved to be effectively instrumental in solving the problems of underdevelopment. In terms of ends, development could be 'maximization of happiness', 'enlarging the choices of the people' 'progressive changes in the socio-economic structure of a society,' 'a process of homogenization,' 'removal of sources of unfreedom', etc. (Sen, 1999).

In recent years economic growth & development are defined as different terms used in economics. Generally speaking, economic development refers to the problems of underdeveloped countries and economic growth to those of developed countries. By economic growth we simply mean increase in per capita income or increase in a country's output of goods and services, or more precisely product per capita (Osberg and Xu. 2008).

These days, the definition of development that emerged after 1990 that incorporated the 'human development indices' in its measurement is considered most comprehensive. The 'development' is defined as "the process of improving the quality of all human lives. Three equally important aspects of development are (1) raising people's living levels—their income and consumption level of food, medical services, education, etc. through relevant economic growth processes; (2) creating conditions conducive to the growth of people's self esteem through the establishment of social, political and economic systems

and institutions that promote human dignity and respect; and (3) increasing people's freedom by enlarging the range of their choice variables, as by increasing varieties of consumer good and services" (Todaro and Smith, 2004, p. 826).

By contrast, the underdevelopment, which is the common feature of so called developing countries, is defined as "an economic situation in which there are persistent low levels of living in conjunction with absolute poverty, low income per capita, low rates of economic growth, low consumption levels, poor health services, high death rates, high birth rates, dependence on foreign economies, and limited freedom to choose among the activities that satisfy human wants" (Todaro and Smith, 2004, p. 847). In some context, underdevelopment is also attributed to under utilization of available resources.

There is no apparent reason to disagree on the theoretical foundation and logical validity of these definitions, although each of them presents an incomplete perspective or partial truth. The vagueness of the very definitions of development undoubtedly needs fine-tuning or narrowing down to address the cause of underdevelopment. In that sense 'development' should mean both effort and process carried out in the underdeveloped sections of the population (geographic region here is not important) to bring them up to the level where their minimum needs of food, shelter, healthcare and education etc. are met at the first place.

#### III. THE HUMAN CAPITAL DEFICIENCY

Apart from various goals and processes of the development set by different schools of thoughts, models and theories, the most crucial questions here are:

- Why does the problem of underdevelopment remain unresolved even after innovation of so many development models and explanations and majority of world population is still cursed to live a miserable life?
- How can we effectively bring the world's poor population out of the underdevelopment trap?

Simple answers to these complex questions respectively are: absence and presence of a qualified implementation agent of development schemes and plans on the specified site where the development is desired. Such 'agent' could be a qualified individual or the institution made up of such individuals.

In more simplified terms, if the underdevelopment of any particular settlement or area is due to under utilization of the resources available, there must be an entity (person or institution) qualified to identify and mobilize these resources for the benefit of that particular settlement or area. Similarly, in raising people's income and consumption levels, providing health and education services or creating conducive atmosphere for growth of self-esteem of the people of underdeveloped area, adequate presence of skilled manpower or human capital to initiate and implement each of specialized tasks like these is inevitable.<sup>3</sup> Therefore, any model or theory of economic development, regardless of its

<sup>&</sup>lt;sup>3</sup> "Human capital refers to the stock of productive skills and technical knowledge embodied in labor. May early economic theories refer to simply as labor, one of three factors of production, and consider it to be a fungible resource—homogeneous and easily interchangeable. Other conceptions of labor dispense with these assumptions." For details, see www.wikipedia.org/

form and content, requires such skilled manpower to implement them on the ground. Despite availability of dozens of economic development models and theories, many of them highly impressive, academic and well articulated, the economic inequality is as pervasive and problem of underdevelopment is as starkly evident as ever before. Lack of human capital where it required the most is undoubted one of the major reasons for this situation.

The sole reason that these underdeveloped areas—be that countries, regions or mere settlements—have remained underdeveloped for centuries, is the absence of this skilled manpower respective to size and scale of the need. This absence is caused mainly by three factors:

- inadequate production of skilled manpower,
- little or nil attraction to outsiders to come in and
- human capital flight.

Among these three, the 'human capital flight' is the most crucial factor. This flight prevents the prospect of otherwise potential of geometric growth of skilled manpower in particular area/sector by means of trainings, experience-sharing and transfer of knowledge by social contacts. The presence of one set of human capital helps to attract the peers in the same or different field of expertise. In other words, if the human capital flight could be stopped from an underdeveloped area/sector, problems like inadequate production of skilled manpower and lack of attraction of such skilled people to the needed area are largely addressed automatically.

Nepal is a classic example of the countries fallen in the underdevelopment trap due to, among other factors, the human capital flight. With an estimated 1 million workers abroad in 2004 (primarily in India, the Gulf and East Asia), remittance inflows soared from 3 percent of GDP to 12 percent. The share of households receiving remittances has also increased from 24 percent in FY 1995/96 to 32 percent in FY 2003/04 (IDA, 2007). However, the HDI for Nepal still stands at 0.534, which gives the country a rank of 142<sup>nd</sup> out of 177 countries with life expectancy at birth of 62.6 years, adult literacy rate (ages 15 and older) of 48.6 percent, and GDP per capita (ppp basis) of US\$ 1,550 (UNDP, 2007). This clearly is an indication that only inbound remittances do not help the country to develop if there is a constant flight of human capital.

## IV. LABOUR MOVEMENT AND ECONOMIC DEVELOPMENT

The importance of human input in production, thereby growth and possibly economic development was identified long ago with the recognition of labour as one of the major factors of production by Adam Smith, the classical economist, through his book *The Wealth of Nations* in 1776. With the growth of means of communication and transportation, movement of this factor of production also increased significantly. (The movement of the people might also have been appeared as increased due to proper documentation, record and study of the impacts of such movements, although one can easily guess that there must have been great movements of human workforce at least within the limits of the continent, since the time immemorial.) Then after, a number of economists have come forward with theories and explanations related to labour or workforce movement and its bearing in entire development paradigm. But all these

theories have invariably treated the human workforce just as factors of production in quantitative terms. With the advent of the concept of human resource in late 1970s and early '80s, the quality of 'labour force' got incorporated into this concept.

The concept of "human capital" is not the same to the concept of labor power in the sense of the physical strength. Unlike physical labor as one of the other factors of production, the human capital is explained and justified by creative faculty of the human brain and the unique characteristics of knowledge that is expandable and self generating with use. This contributes to replace the economics of scarcity by the economics of selfgeneration, i.e. development.

Human capital refers to the stock of productive skills and technical knowledge embodied in labor. Originally, Adam Smith defined it as one of the four types of fixed capital that were: (1) useful machines, instruments of the trade; (2) buildings as the means of procuring revenue; (3) improvements of land and (4) human capital. He referred to it as "the acquired and useful abilities of all the inhabitants or members of the society. The acquisition of such talents, by the maintenance of the acquirer during his education, study, or apprenticeship, always costs a real expense, which is a capital fixed and realized, as it were, in his person. Those talents, as they make a part of his fortune, so do they likewise that of the society to which he belongs. The improved dexterity of a workman may be considered in the same light as a machine or instrument of trade which facilitates and abridges labour, and which, though it costs a certain expense, repays that expense with a profit." (Smith, 1968, p. 271) In short, Smith saw human capital as skills, dexterity (physical, intellectual, psychological, etc) and judgment.

Phenomenal increase in the migration of highly skilled, highly educated professional workers in recent years, particularly from developing to developed countries causing depletion or loss of intellectual and technical personnel in the countries where the need is more acute has initiated new form of debate in recognizing human capital and its impact in the deployment process of the underdeveloped areas. In some context human capital flight is equated as the brain drain or an emigration of trained and talented individuals to other nations or jurisdictions. There are several arguments by many economists for and against of such 'drain' and its impact in development.

A. W. Lewis established the inter-connection between the economic development and labour migration or movement when he wrote in 1954 "Economic Development with Unlimited Supplies of Labour." His proposition was that in many economies an unlimited supply of labor is available at subsistence wage. The main sources from which workers come as economic development proceeds are subsistence agriculture, casual labor, petty trade, domestic service, wives and daughters in the household, and the increase of population. The subsistence wage at which this surplus labor is available for employment may be determined by the minimum required for subsistence.

In such an economy employment expands in a capitalist sector as capital formation occurs. Capital formation and technical progress result not in raising wages, but in raising the share of profits in the national income. As the capitalist sector expands, profits grow relatively, and an increasing proportion of national income is re-invested. Capital is formed not only out of profits but also out of credit creation. The wages in the urban sector is higher by about 30 percent than the subsistence sector. This is how labor from rural sector is employed and the economy continually expands (Lewis, 1954).

There could be criticism of this theory from several academic angles, but from practical point of view, this model could not contribute to the development of the underdeveloped countries and areas. The implied argument of expansion of urban and industrialized economy should be considered as overall development of a country is bigotry as the subsistence sector is marred by the vicious cycle of poverty; and the prosperity and capital accumulation gained by the modern sector never got transmitted to the underdeveloped sector.

On the contrary to the Lewis' theory, the flight of the human capital from rural to urban or underdeveloped to very developed areas has severely jeopardized the prospects of development of underdeveloped area/country. Among several other concepts, the idea of 'brain drain' is also widely debated these days. Advantages and disadvantages of cross-border migration of the workforce—both skilled and unskilled—and impacts in the host and originating economies have also become the subject of academic interests.

The 'brain drain' has been defined " as an abnormal form of scientific exchange between countries, characterized by a one—way flow in favour of the most highly developed countries". It has pointed the main characteristics of brain drain as follows:

- a) There are numerous flows of skilled and trained persons from developing to developed countries;
- b) They are characterised by large flows from a comparatively small number of developed countries and by small flows from a larger number of developing countries;
- c) In these flows engineers, medical personnel and scientists usually tend to predominate;
- d) The above flows have grown with increasing rapidity in recent years;
- e) The higher the level of skill/training, the greater the susceptibility to migration tends to be (UNESCO, 1969).

It is widely accepted that there is significant socio-economic impact of labour migration of various categories, including the 'brain drain' on local communities. In one of the studies, it is summarized as the double-edged impact as presented below (Cucuruzan, 2007):

TABLE 1: Double-edged Impact

Positive Impact Country of Origin Country of Destination Brain gain (return migrants successfully Brain gain (highly skilled immigrants in top reintegrated) 3D jobs (immigrants-filling the gap) Remittances (income growth, increased consumption, long term investments) "Export" of unemployment Young immigrants – role in demographic change Opportunity for financing community based Increased number of tax payers national/local budget) Increased access to educational and health services for the migrants' families Diaspora's lobby Transfer of new work culture, best practices, knowledge

Negative Impaci	Negative .	Impact
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Country of Origin	Country of Destination
Demographic impact (youth loss)	Pressure on the social system (new vulnerable groups)
Loss of young/qualified labour force (youth loss, brain drain)	Population fears – immigrants as jobs' thieves, trouble makers, misfits
Conflicting relationships within the community (new socio-economic inequalities due to status change)	Conflicting relationships within the local community (immigrants and natives)
"Ghost villages"- "Flying villages"	The integration programmes vs. assimilation strategies (how costly?)
Vulnerable family members left behind (elderly, women, children) - higher dependence on migrant's resources (substitutes and not complements to family income)	
Failure of reintegration programmes for returnees	
Source: Cueuruzan 2007	

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## V. THE HUMAN CAPITAL DYNAMICS OF UNDERDEVELOPMENT

# The Scope

The scope of human capital perspective with respect to reduction of underdevelopment should be more specific but broader than the present definitions and understandings. So far, the human capital is defined as the 'skilled and knowledgeable labour' and this skill is weighed against their knowledge about the latest technical know-how adopted by the developed countries. Perhaps, their ability to faster adjustment to newer culture could also have been a yardstick.

The human capital for the purpose of addressing the problem of underdevelopment, therefore, should be defined as the workforce with the knowledge about social, economic and political issues of underdevelopment of the area of origination of such force. Specialized skill and creativity to address the problem of underdevelopment, and complete knowledge about the all forms of resources—human, natural and financial about the desired locality should also be included to categorize labour as human capital.

The idea of 'brain drain' also sprouted out of this highly generalized concept of human capital. The 'brain', which is considered as 'drained' needs to be evaluated on the basis of usefulness to address the problem of underdevelopment in the locality to ascertain if it were actually a human capital flight. Through this lens, the entire workforce that migrated might not have local utility value for development contribution. It actually might not have been necessarily the human capital flight. Therefore, for the purpose of this write-up, the definition of human capital flight is also more specific than skilled labour migration or 'brain drain.'

All these economic theories, reports and studies have one thing in common: all of them recognize the fact that the human capital has a role in development. But all of them equally in unison fail to recognize the fact that the main and only reason of underdevelopment of a particular country, region or area is the absence of human capital in such jurisdictions primarily due to the human capital flight. Therefore, first of all, the process to overcome the problem of underdevelopment should begin by identifying the nature of human capital required and the efforts to produce, retain and to diffuse the knowledge and skills. Again, the process should be in the order of recognition of such capital, production, retention and diffusion of it.

The issue of utilization and mobilization of such human capital, which has been the general concern of the most of the development economists so far, is not an issue. The creative faculty of the brain inherent in the human beings will find ways for it, and potential scenario of competition created by retention will enlarge the scope of both utilization and mobilization. As such, it is likely to have more output than forced assignment of responsibilities.

## Production of Human Capital

Production of the kind of human capital that is appropriate to meet the needs of underdeveloped country/area is the most crucial factor in unshackling the trap of underdevelopment. Education system designed according to the need of development-aspiring sectors is the main basis of supply of the human capital. In producing the human capital, two main components must be incorporated.

- All technical education should be given in the mother tongue of the population of practically manageable scale and,
- The curricula right from the high-school level should include teaching, learning materials with localized adaptation, at least on status, availability and potentials of human capital natural resource and demography and dynamics of local culture and history.

The current education system and practices particularly in the developing countries is just opposite to the above-mentioned two components. First, there is an amazing trend in education system that imparts education in the languages of the countries of the developed world, mainly English, French and Spanish in some developing countries of Africa and South America. This trend has multiple effects that contribute to perpetuate the status of underdevelopment; (a) itt produces manpower appropriate for the developed world with the investment of poor developing nations; (b) once the language barrier is overcome, there could be increased impetus for migration to the workforce which otherwise could have explored avenues to harness the local resources and to be employed at the local level, that in turn supports the development process; (c) the practice of giving technical education in mother tongue is not only in consonance to the concept of culturally compatible development, but it also drastically reduces the burden of future workforce of learning additional language and content of the course simultaneously; it helps to produce more technical manpower and a sense of ownership is also lost in imparting education in foreign language; (d) in absence of localized adaptation of the courses on availability of resources etc., there have been several duplication in executing

development projects. Local and indigenous good practices are gradually disappearing, local self sustenance is rapidly diminishing, local technologies and resources are underutilized and they are being replaced by more expensive alien know-how and expertise which is unaffordable, and might prove unfriendly in the long run. As the result, underdeveloped country/area perennially remains underdeveloped.

# Retention of Human Capital

In the context of human capital management in the underdeveloped sectors, retaining of it is probably the biggest challenge. Inappropriate education system blinds the person about even apparently existing potentials at the local level. Higher wage levels in the developed countries, language advantage was provided in the interest of those countries by wrong orientation of education system and seemingly lack of opportunity at local level work as push factors to human capital flight (Lee, 1966).

The policy of required human capital retention must be supplemented by an appropriately devised education system. A functional educational system that provides mainly technical education in mother tongue works as major factor for such retentions. As it is, it develops nationalistic feelings and sense of belonging with the locality in question. The acquired knowledge provides for a sense of self-gratification as the new knowledge also corroborates with the day-to-day life and familiar surroundings. In this situation, the economic and other incentives as the pull factors in migration in potential destination have to be much stronger (Lee, 1966). This is because the general human tendency for migration is that people are not willing to leave the place of origin where social and culture bonding that provide a sense of identity are stronger even if the economic rate of return is smaller than in the potential destination. The underdeveloped country/area should be able to utilize this phenomena.

# Diffusion of Knowledge and Skill

Generally adequate diffusion of knowledge and skills in the underdeveloped sectors is an uphill task. But, once proper policies of recognition, production and retention for the human capital are in place, primarily by means appropriately designed education system, the diffusion becomes a spontaneous process. In the particular context of underdeveloped country/area, where literacy and formal education levels are low, transfer of useful knowledge through practice and interaction can contribute significantly in the development process. Formal trainings and academic exercises unquestionably have their own value. It may be emphasized here that the chances of diffusion of knowledge and skills needed for the development of underdeveloped area increases significantly only if the technical education is imparted mainly in the mother tongue, national or local (familiar) language.

## VI. CONCLUSION

The recognition of the human capital flight as the most crucial cause of underdevelopment provides new basis for development discourse. Viewing the human

capital just equivalent to skilled labour is not adequate. The creative faculty of the human being which is obviously not easily measurable but has great value and knowledge about the resources of the development-aspiring area are added variables in defining human capital.

The concept 'The Human Capital Flight: The Cause of Underdevelopment' requires a lot of groundwork and academic research to provide for convincing empirical foundations. However a cautious approach must be adopted such that excessive uses of statistical methods once again do not dilute the main concept itself. It is apparently an established phenomenon already.

On the basis of mainly considering a country as the economic unit, there are ample examples where economic progress has been highly impressive by retention of human capital through the policy of providing technical education in the mother tongue. Japan is the most glaring example as its education policy has been to impart all forms of knowledge in the mother tongue. Impressive growth of China fueled by cheap production cost is largely due to retention of the human capital. There are several other examples where the countries with poor economic performance have excelled with the contribution of a single generation of properly educated workforce that could be retained in the country. It is high time that we start acting in this direction to address the issue of underdevelopment.

To conclude, Nepal needs to evaluate the development models and practices it adopted in the past and mend the development practices to bring the country out of the poverty trap. The education system must be reviewed first so that the trained manpower could be retained here. There are two trends of out-migration of the Nepali workforce. One, unskilled or semi-skilled labour force temporarily migrates, remits its limited earnings back home that is just enough to sustain for his family, and returns after its productive ability is effectively diminished. Two, the workforce with better educational training at the expense of this poor country's resources migrates and assimilates in the developed country culture. The country suffers double losses by investing heavily in the English-oriented education, and ultimately loosing the person so educated in the interest of the developed world that did not invest in creating this human capital. This drain of resources both in the form of capital and human capital is pushing the country further in the vicious cycle of poverty. Immediate intervention in the education system and ongoing flight of the human capital can effectively contribute to the development efforts.

## REFERENCES

Cucuruzan, Romana Emilia. 2007. "Migration Flows, Sustainable Development and Neighbourhood Policy in the New EU Countries." *Working Paper*. Babes Bolyai University, Faculty of European Studies, Cluj-Napoca, Romania.

International Development Association (IDA, 2007). "Interim Strategy Note for Nepal." Washington, D.C.

Kuhen, Frithjof. 1987. "Causes of Underdevelopment and Concepts for Development." *The Journal of Institute of Development Studies*, Vol. VIII.

Lee, E. 1966. "A Theory of Migration." Demography 3:47-57.

- Lewis. A. W. 1954. "Economic Development with Unlimited Supplies of Labor. Manchester Journal, 29-30.
- Osberg, Lars, and Kuan Xu. 2008. "How Should We Measure Poverty in a Changing World? Methodological Issues and Chinese Case Study." Review of Development Economics 12:419-441.
- Roberts, G.W. 1967. "The Family as an Economic Unit and as a Basis for National Planning. In Hankinson, R.K.B., R. Kleinman and P. Ekstein (eds.), Proceedings of the 8th International Conference of the International Planned Parenthood Federation, Santiago, Chile, April 9-15. London: IPPF.
- Sen, Amartya. 1999. Development as Freedom. Oxford University Press.
- Smith, Adam. 1968. The Wealth Of Nations, 1776. Reprinted. London: Oxford University Press.
- Todaro, Michael and Stephen Smith. 2004. Economic Development. Eighth Edition. Pearson Education.
- UNDP. 2007. Human Development Report. New York: United Nations.

UNESCO Report published in 1969.

www.bbc.co.uk/news

www.wikipedia.org/