

HUMANE DEVELOPMENT: THE PORTRAIT OF EDUCATION IN BRAZIL

Desenvolvimento Humano: O Retrato da Educação no Brasil

Arnaldo Jose de Hoyos Guevara¹, Daniela Gasperin², Fernando Fukunaga¹

¹ School of Economics and Business Administration,
Pontifical Catholic University of São Paulo, Brazil

² Member of Group of Studies and Research on Futures,
Pontifical Catholic University of São Paulo, Brazil

E-mail: arnoldodehoyos@yahoo.com.br, palestrante@daniellagasperin.com.br,
fernandofukunaga@me.com

Abstract: : The Human Development Index (HDI) was created to emphasize that people and their capabilities must be the ultimate criterion for assessing a country's development, and not only your economic growth. In 2012, the United Nations Development Programme(UNDP) in Brazil, the Institute of Applied Economic Research (IPEAD) and the João Pinheiro Foundation took the challenge of adapting the Global HDI methodology to calculate the HDI municipalities. The HDI municipalities consolidates a dialogue informed and based on development from HDI. This study aims to portray the dimension of education in 5,565 cities in 27 states in Brazil. The result shows that 50% of the States are classified as inadequate, 24% as satisfactory, 16% as unsatisfactory and only 10% as a reference. This evidence makes it possible for the construction of plans of action, such as an incubation program for States classified as unsatisfactory and benchmarking program for countries classified as reference. The education improves the quality of the human factor and modifies the entire picture of the country, because there is no country that has managed to develop without investing in education.

Keywords: Human development; Humane development; Education; Brazil

Resumo: O Índice de Desenvolvimento Humano (IDH) foi criado para enfatizar que as pessoas e suas capacidades devem ser o critério primordial para avaliar o desenvolvimento de um país e não apenas seu crescimento econômico. Em 2012, o Programa das Nações Unidas para o Desenvolvimento (PNUD) no Brasil, o Instituto de Pesquisa Econômica Aplicada (IPEAD) e a Fundação João Pinheiro assumiram o desafio de adaptar a metodologia do IDH Global para o cálculo do IDH Municipal, o IDHM. Este trabalho tem como objetivo retratar a dimensão da educação, que é um dos três fatores básicos, em 5.565 cidades em 27 estados do Brasil. O resultado mostra que 50% dos estados são classificados como inadequados, 24% como satisfatórios, 16% como insatisfatórios e apenas 10% como referência. Essa evidência sugere a construção de planos de ação, como um programa de incubação para Estados classificados como insatisfatórios e um programa de benchmarking tomando como base países classificados como referência. A educação melhora a qualidade do fator humano e modifica todo o quadro do país, pois não há país que tenha conseguido se desenvolver sem investir massiva e eficientemente em educação.

Palavras-chave: Desenvolvimento Humano; Desenvolvimento Humanizado; Educação; Brasil.

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INTRODUCTION

Human development is all about human freedoms: freedom to realize the full potential of every human life, not just of a few, nor of most, but of all lives in every corner of the world, now and in the future. Such universalism gives the human development approach its uniqueness. The Human Development Index (HDI) was created to emphasize that people and their capabilities must be the ultimate criterion for assessing a country's development, and not only your economic growth. The HDI can be used to question the choices of national policy, asking how two countries with the same level of per capita with different results¹.

The HDI is composed of 3 dimensions: the health dimension is measured by life expectancy at birth, the dimension of education is measured by the average years of schooling for adults aged 25 years and over, and years of education to school children entering age, and finally the size of the standard of living is measured by per capita gross national income. The figure 1 presents the 3 dimensions¹.

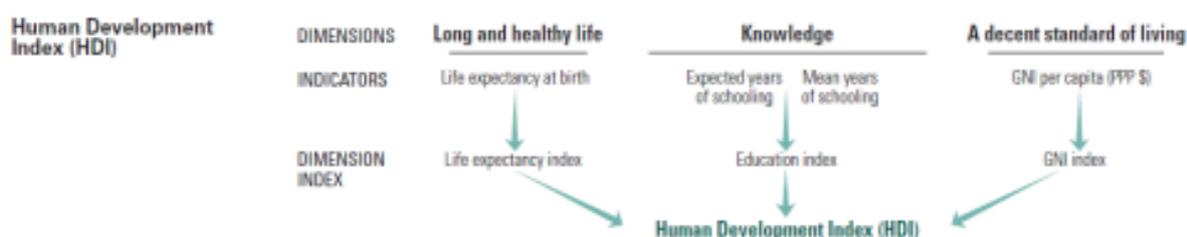


Figure 1 Human Development Index
Source: Human Development Report, 2016

In 2012, the United Nations Development Programme (UNDP) in Brazil, the Institute of Applied Economic Research (IPEAD) and the João Pinheiro Foundation took the challenge of adapting the Global HDI methodology to calculate the HDI municipalities (IDHM). After the Brazilian municipalities IDHM, all three institutions have taken on the challenge of calculating IDH level of metropolitan regions in the country. The IDHM consolidates a dialogue informed and based on development from HDI. The map of human development in Brazil democratizes information under municipal and metropolitan, whose goal is to exploit society, strengthen local capacity, improve public management and empower citizens. The map consists of the Human Development Index in 5,565 cities in Brazil, of 27 Federation Units (UF), in addition to the 20 Metropolitan Regions (RM) and their respective Human Development Unit (UDH). In addition, the atlas provides more than 20 indicators of

¹Human Development Report 2016. Human Development for Everyone. United Nations Development Programme (UNDP). Online at: <<http://hdr.undp.org/en/2016-report>>

demographics, education, income, work, housing and vulnerability¹.

In Brazil, it is observed that investments increase in early childhood education, but the reality of the country is far from expected. The Brazil presents the lowest per pupil spending on early childhood education (\$ \$1,696), about 4 times lower than the OECD average (\$6,670). While OECD countries investing increasingly in education, Brazil is going downhill. This fact, is perceived by the size of the population that ends the high school and the increase in adult and youth education (Franca, 2013).

This study aims to portray the dimension of education in Brazil, since the country occupies the 53rd place in education, among 65 countries evaluated by the Programme for International Student Assessment (PISA)². Even with the social program that encouraged the registration of 98% of children between 6 and 12 years, yet the country has 731,000 children out of school³. Beyond the challenge of literacy for all children up to the age of 8, the goal is to arrive at 6 in 2022⁴.

DEVELOPMENT

Human development

The principle of universalism is one thing; translating it into practice is another. Over the past quarter-century there has been impressive progress on many fronts in human development, with people living longer, more people rising out of extreme poverty and fewer people being malnourished. The human development has enriched human lives, but unfortunately not all to the same extent, and even worse, not every life¹.

Human development must be centred on people and the expansion of your well-being. Understood as the expansion of the scope of choices and the ability and the freedom to choose. The process of expansion of freedoms includes social, economic dynamics, and environmental policies. Dynamics necessary to ensure people opportunities. In addition to the enabling environment so that each exercise your potential⁴.

Exercise the potential means to extend the freedom of people to have long, healthy and creative lives, so anticipate other goals and that have reason to value and to engage actively in defining equitable and sustainable development of the planet. People are, at the same time, the beneficiaries and the thrusters of human development⁵.

The Brazilian IDHM considers the same three dimensions of the Global HDI, but suit global methodology to the Brazilian context and to the availability of national indicators. The IDHM (three components: IDHM longevity; IDHM education; IDHM income), and a little of the history of cities, States, and metropolitan areas in three important dimensions of human development during two decades of Brazilian history. The IDHM is a number that varies between 0 and 1. The closer to 1, the greater the human development of a federal unit, municipality or metropolitan area².

Search human development by improving the quality of life, however humanize must go far beyond the accumulation of wealth and the growth of gross national Product and other variables related to income. Without disregarding the importance of economic growth, we need to see beyond, we need to expand the freedom we have. Educational advances need to develop more comprehensive social individuals that interact with the world we live in and influencing the world².

¹ Atlas of Human Development in Brazil. Online at: <<http://www.atlasbrasil.org.br/2013/>>

² Programme for International Student Assessment (PISA). Online at: <<http://portal.inep.gov.br/pisa>>

³ Brazilian Institute of Geography and Statistics (IBGE). Online at: <<http://www.ibge.gov.br/home/>>

⁴ Index of development of basic education (IDEB). Online at: <<http://ideb.inep.gov.br/>>

EDUCATION

Educational goals proposed by HDI seek expansion and the elaboration of a concept of development that aims to combat all forms of human deprivation. Economic policies geared to social improvements are those that purport to increase literacy, schooling and other social and political opportunities. The UNDP documents published since the 1990 has pointed out that the education is the appropriate way to create the individual capacities not only professionals, but also policies. The reports focus on the need for Governments to invest in educational policies increasingly expanded and able to enable individuals to a political participation that can take their demands to the public sphere¹.

Education supports the reduction of economic disparities and strengthening regional economies. To correct social asymmetries is the duty of the State to promote equal conditions of education in the different social statements. It is noted that preventive measures are most effective when inserted universally, i.e., to all individuals of the nation. Thus, public policy build foundations for children's education quality and accessible to all (Santos, 2015).

Since education improves the quality of the human factor and modifies the entire picture of the country, because there is no country that has managed to develop without investing in education. This is the most important investment to make, so there is not only growth, but the authentic development. The Peru and Indonesia are the countries with the highest percentage of students in this regard and the Orientals, got the best results, such as, China, Singapore and South Korea².

According to the Organization for Economic Cooperation and Development (OECD), about the size of the Brazil education appears among the 10 countries that have more students with low academic achievement in mathematics, reading and science. In Latin America, in addition to Brazil, Peru, Colombia and Argentina have also had bad results. In the countries surveyed, 4,500,000 up students 15 years of age did not reach the basic level of learning this is equivalent to one in every four students³.

Human development stresses the need to invest in human capabilities and ensure that these capabilities are used for the benefit of all. The largest participation enhances the utilization of capacities and the abilities, as there is a strong relationship between improvement of educational levels and advances in participatory processes support the deepening of democracy.

¹ United Nations Development Programme (UNDP). Online at: <<http://hdr.undp.org/en/content/human-development-report-2010>>

² Organization for Economic Co-operation and Development (OECD). Online at: <<http://www.oecd.org/>>

³ Sen, A. Development as Freedom. Publishing company: Anchor Books, 2000. 384 p.

METHODOLOGICAL PROCEDURES

This study is quantitative in 5,565 Municipalities in Brazil, of 27 Federation Units⁴. In addition to the 20 Metropolitan Regions (RM) and their respective Human Development Index (HDI). The selection criteria used the database of the Map of human development in Brazil that offers more than 200 indicators IDHM of demography, education, income, work, housing and vulnerability. This study aims to analyze the relationship between HDI and on the dimensions of income IDHM longevity, and especially education. So was selected the following variables (table 1).

Table 1 Description of Variables

Indicator name	Definition
IDHM_E	Municipal human development index-Education Dimension. Synthetic index of the dimension that Education is one of the 3 components of IDHM. Is obtained via the geometric mean of the sub-index of frequency of children and young people at school, with weight of 2/3, and the sub-index of education of the adult population, with 1/3 weight.
IDHM_L	Municipal human development index-dimension Longevity. Dimension Longevity index that is one of the 3 components of IDHM. Is obtained from the indicator life expectancy at birth, by means of the formula: $[(\text{observed value of indicator}) - (\text{minimum value})] / [(\text{maximum value}) - (\text{minimum value})]$, where the minimum and maximum values are 25 and 85 years respectively.
IDHM_R	Municipal human development index-Income Dimension. Index of the Income dimension which is one of the 3 components of IDHM. Is obtained from the Income per capita indicator through the formula: $[\ln(\text{observed value of indicator}) - \ln(\text{minimum value})] / [\ln(\text{maximum value}) - \ln(\text{minimum value})]$, where the minimum and maximum values are R\$8.00 and R\$4,033.00 (August 2010 prices).
ESPVIDA	Life expectancy at birth.
E ANOSES TUDO	Expected years of schooling.
ESCOPEC OATV	Education of the economically active population with 10 years or more, who have 15 or more years of education and instruction. Is a variable of indicator market and workforce.
ALFABET	People literacy of 10 years or more of age, with 15 years or more of education and instruction. The variable refers to literacy and education indicator statement.
POPRESI	Resident population in Brazil. The variable refers to the General characteristics of the population of population and demography.

Source: Map of human development in Brazil, 2017

PRESENTATION AND ANALYSIS OF RESULTS

The results show that the distribution IDHM is between 0.599 a 0.718. The Box-Plot demonstrates the concentration in the storied track. The median is the right of the range. The outliers are left the range. The normality test of Anderson-Darling indicates that the data follow a normal distribution. The municipality with the highest features of 0.862. The median indicates that 50% of the municipalities have IDHM less than or equal to 50% 0.665 and others have IDHM greater than or equal to 0.665. The IDHM middle of the municipalities is 0.659, with standard deviation of 0.071. With 95% confidence, we can say that the average is in the range of the indexes between 0.657 and 0.661 and the median in the range of 0.662 and 0.669. The table 2 shows the variables which have correlation with degree above 0.800 and with high degree of reliability

Table 2 Correlations among Variables

Variable (y)	Variable (x)	Degree correlation
IDHM_E	IDHM	0,951
IDHM_L	IDHM	0,852
IDHM_R	IDHM_E	0,820
ESPVIDA	IDHM	0,852

Source: Prepared by the authors, 2017

The variables ESCPOPECOATV, ALFABET and POPRESI were included and analyzed from the trend analysis (S-Curve). Variable ESCPOPECOATV can be observed that the predicted values for the variable analyzed follow the growth trend of the historical series, however, from the seventh grade there is a greater growth (figure 2).

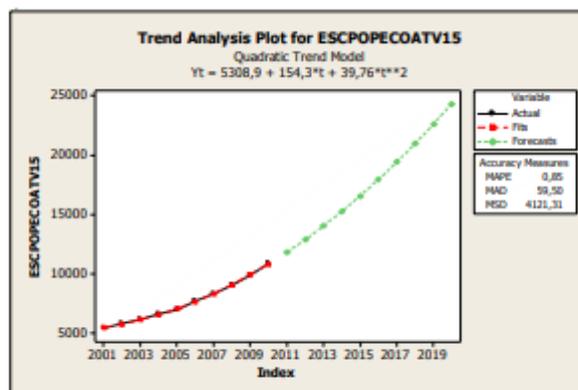


Figure 2 Trend Analysis to "ESCPOPECOATV", Quadratic Curve
Source: MiniTab (16.1.0)

Similarly, the variable ALFABET can be observed that the predicted values for the variable analyzed follow the growth trend of the historical series, however, from the fifth year an increase greater than the pattern of previous years (figure 3).

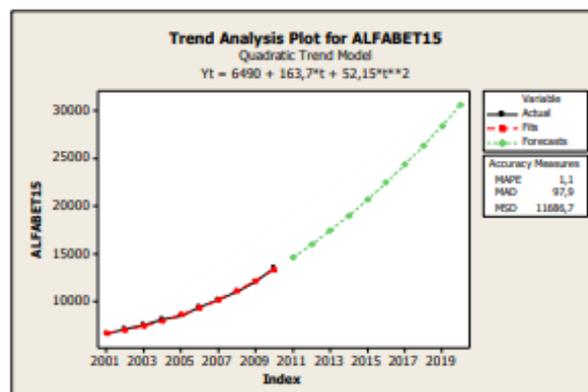


Figure 3 Trend Analysis to "ALFABET", Quadratic Curve
Source: MiniTab (16.1.0)

The variable POPRESI can be observed that the predicted values for the variable parsed does not follow the pattern of the growth trend of the historical series, from the ninth grade there is a fall, which means the reduction of the population resident in Brazil. We emphasize that this forecast was made based only on the values of the historical series of the variable itself (figure 4).

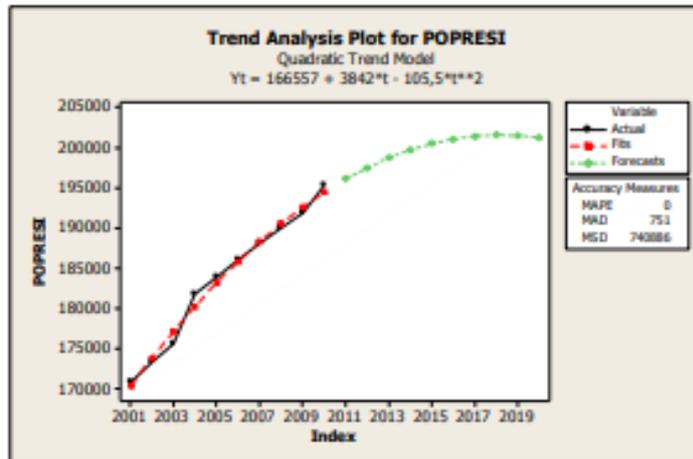


Figure 4 Trend Analysis to "POPRESI", Quadratic-curve
 Source: MiniTab (16.1.0)

As producer of the 27 States of Brazil, we can observe that the similarity in your most is above 80%, except for the Federal District (DF) which is below 45%. The similarity of the States allows us to observe the opportunity of several groupings, however two groups are larger and feature a degree of 81.59%. Analyzing the clusters from the perspective of the map of Brazil, there are no borders between the States of a same group, being a State that was isolated, Distrito Federal (DF) (figure 5).

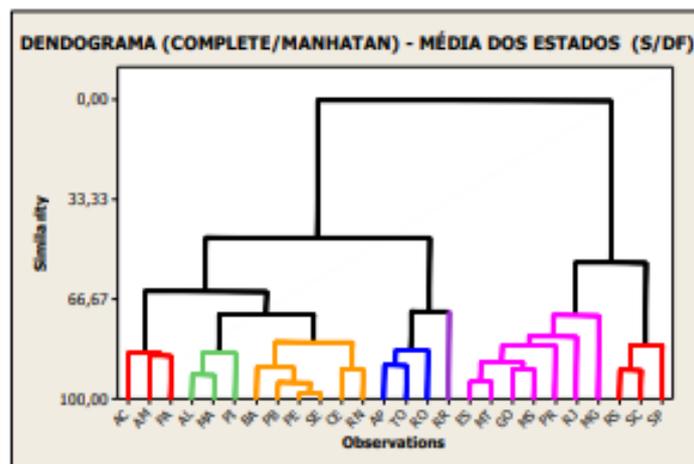


Figure 5 Group Regarding the States
 Source: MiniTab (16.1.0)

The classification of these new groups generated by observation of clusters generated three distinct groups (figure 6).

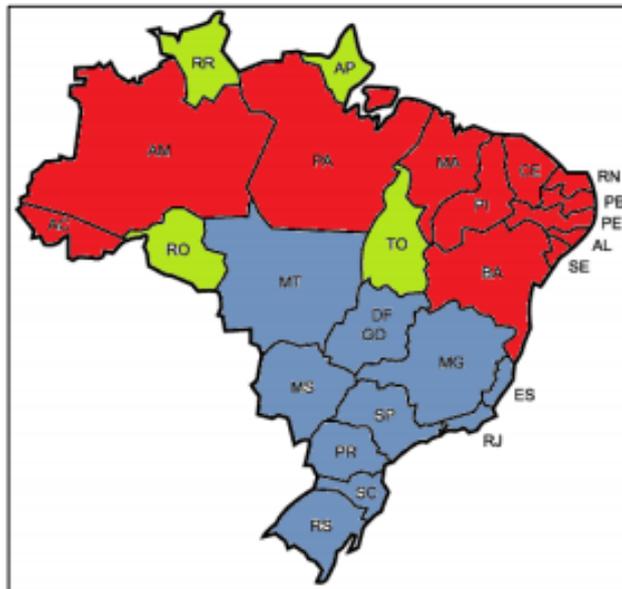


Figure 6 The Color of the Education in Brazil
Source: Prepared by the authors, 2017

According to the analyses, we realize that there is a difference between the groups, when it comes to the HDI in the education dimension. This research portrayed the education dimension through a ranking among the States of Brazil, which were classified in reference, satisfactory, unsatisfactory and inadequate. We can see in the results presented in Figure 7 that there are three States, six States classified as satisfactory, four States as unsatisfactory and 13 States classified as inadequate. This last group is alarming since it represents 50% of the States, noting that exclude the DF analysis for being a State that showed bias in the results.

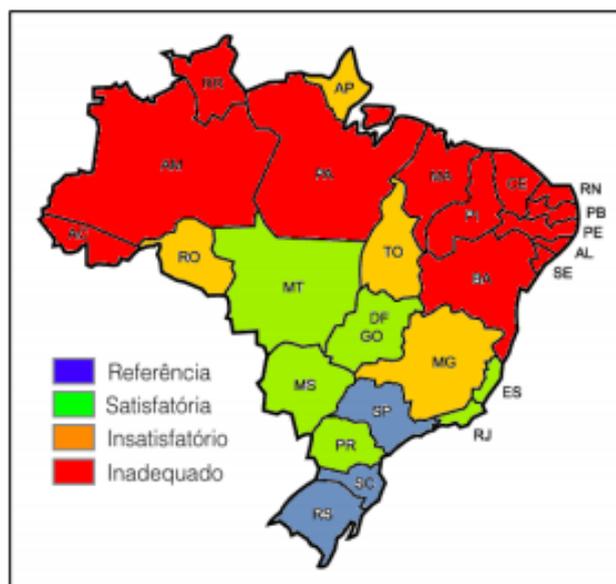


Figure 7 Panel of Education in Brazil
Source: Prepared by the authors, 2017

The analysis of conglomerates began creating new groups, but this time by the similarity of States in relationship variables related directly or indirectly with your education and not by geographical proximity. Were generated three new groups which reflect the situation of education in the country. It is possible to identify any similarities between the ranking of education and these new collations, the States classified as satisfactory and reference are about the same in the third group that in fact boast better indicators of the dimension.

The principal component analysis and stepwise regression of variables related to education helped us put together the elements of the equation of ranking. The construction of a qualitative classification allowed Group States by scoring levels and not just by the position. The result shows that 50% of the States are classified as inadequate, 24% as satisfactory, 16% as unsatisfactory and only 10% as a reference. This evidence makes it possible for the construction of plans of action, such as an incubation program for States classified as unsatisfactory and benchmarking program for countries classified as reference.

The results of the dimension of education show the inequality in the country and show a significant correlation between income and education indicators, as well as the indicators of health and life expectancy, which refer to the income is a major factor for human development in Brazil. In Brazil, the discussion from the perspective of complexity on education refers particularly to the French philosopher and sociologist Edgar Morin. Several studies call attention to the principles of complexity and the need to rethink education in the country, mainly the resignification of the pedagogical practices.

Morin (2011) highlights the dialogic principle as an important concept of complexity. This principle refers to the ability of association between two terms that are antagonistic, but complementary. For example, order and disorder are antagonistic, but they can be at times complementary, to collaborate and produce organization and complexity.

In relation to the principle of dialogic, the involvement of the contrary implies the development of a pedagogy that considers the conflict, that says it all, the parties and their relationships rather than isolate them. From this vision, the fragmented curriculum would place a curriculum that allows communication and dialogue between knowledge, promoting the construction of the whole (Sakowski, Tóvolli, 2015).

The pedagogical practice implies the adoption of a methodology which stimulates the students themselves to produce your knowledge. In this way, the teacher would have the role of facilitating dialogue between knowledge, respecting the diversity of each, since each student has your own learning style and your own way of solving problems (Santos, 2008).

The multidimensionality of the problems in education of Brazil require multidimensional solutions developed by innovative and interdisciplinary collaborations among researchers and experienced researchers of the next generation. Addressing such dimensions from research, policy and practice requires an ecological approach that meets the multiple and interconnected areas to produce social mechanisms that shape the life experiences of individuals (Carter, 2014).

CONCLUSION

This article aimed to present the portrait of education of Brazil, which allowed a reflection on which strategies should be taken to improve the development in the country. The results show the possible for the construction of plans of action, such as an incubation program for States classified the unsatisfactory and benchmarking program for countries classified as reference.

Human development has the role of creating opportunities, including education helps in overcoming poverty and the development of a country. Such affirmative, makes us think in difficulty to explain why the existence of inequality. If educational policy comes to offer education for all, why do you persist the inequality of opportunities?

Human development is an inalienable right, which all are enabled to participate in the economic, social, cultural and political, to contribute and enjoy the rights and freedom of the accomplishment. The central role of freedom in the concept of human development, depends on the impact on the freedom of the people. Freedom is in the sphere of States through public policies focused on education, health, credit, social security, among others, seeking to improve the quality of life and longevity of the citizen, in addition to training to get results on global economic and local.

Thus, economic growth must be transformed into concrete achievements to society. The actions should promote the development of healthier children, universal education and quality, expansion of political participation of citizens, environmental preservation, balance of income and opportunities among people, greater freedom of expression, among others.

Humanization is a result of the capabilities and opportunities created by freedom. This approach focuses on human life, not only in the aspect of income but mainly in the real opportunities of life. She proposes a perspective enabling the people so that they can exercise their individual choices, as well as participate in the processes in the family, community and national level. The humanized development extends opportunities for individuals, because the human relations need to be equitable, and by improving the quality of life of the present generation, generate opportunities for future generations, so that the process of sustainable development.

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