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**The Importance of the Sustainable Development in
Terms of Quality of Life of the Future Generations**

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Abstract. Within last few decades, sustainable development has started to become more and more popular as a conception. It proves how important is to approach to this matter via society, economy and environment etc. in terms of life standarts of future generations. Especially by the end of the 20th century, as the new development tools gained more importance then this proved the necessity of sustainable development. Therefore this study was aimed on consideration of development progress in Turkey and Brazil. In this context, it has been discussed the progress levels of these countries in terms of sustainable development also it has been proved what policies need to be used in order to provide a more efficient sustainable development for Turkey.

Keywords: Sustainable development, Renewable energy, Development, Sustainability.

JEL Class: Q01, Q20, O10, Q56.

1. Introduction

The fact of sustainable development, as a conception came to the fore in the recent years. Taking up the quality of life of the future generations in the context of addressing to the society, economy and environment made the conception of sustainable development more important. The variety of the means affecting the sustainable development and their different functions indicate that the fact of the sustainable development has many aspects. This versatility makes mandatory to take up the sustainable development from different aspects.

The purpose of the study is to identify the degree of the importance of the sustainable development, to determine the factors necessary for a sustainable development and the paths through it can be achieved through. Firstly, is expressed the definition of the sustainability in the context of development and studied the historical process of the sustainable development. Besides, it has been explained the means of the sustainable development and their functions. On the other hand, in terms of the sustainable development, are taken up the examples of Turkey and Brazil and compared the policies they have applied. Finally, it has been discussed the point they have reached in the process of the sustainable development and

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determined the policies Turkey needs to ensure a more active sustainable development.

2. The Definitions of the Sustainable Development and the Historical Process

Although the sustainable development had been explained in different sources with different expressions the most common is the definition published in 1987 in the report of the World Commission on Environment and Development. Sustainable development is realizing of such a development, while meeting the needs of today's development not to eliminate the capabilities of the future generations to meet their needs (Kaypak, 2011). In another definition, expressed in the Urbanlogy Dictionary, sustainable development is: "using the environmental values and natural resources in rational way, without causing a terrible waste taking into consideration the rights and benefits of today's and future generations, regarding the principle and worldview of an environmentalist, aimed at providing an economic development" (Keleş, 1998). Therefore, we can define the sustainable development as to meet the needs of today directed to meet the needs of the next generations without restriction their capabilities and possibilities (Seyidoğulları, 2013).

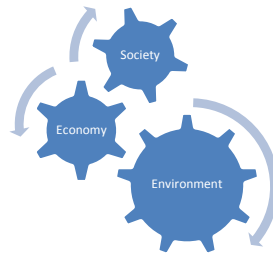


Figure 1. Components Forming the Societies

In 1999, Hart brought a different perspective to the concept of sustainability. He had seen the concepts of economy, society and environment in a close relationship. He had explained the sustainability in this axis. Hart had represented the sustainability in a different projection and explained that the economy is within the community. (Özmehmet, 2010). But in his opinion also the society exists together with the economy in the environment. (Figure 2). All of the descriptions indicate that, to achieve a sustainability is possible while taking up the environment, society economy as a wholes and the solutions coming from such an approach to the issue.

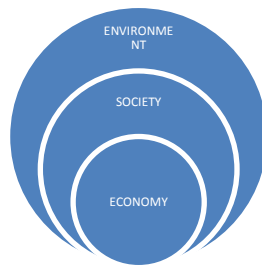


Figure 2. The Definition on the Sustainability According to Hart.

The concept of sustainable development had been expressed many times in the historical process and emerged in different forms. From the mid of 1960^s started to become evident a decreasing in the speed of the profits and falling down the productivity. Together with this development, which means narrowing of the accumulation of capital the capitalist system entered into the longest crisis wave of the century.



Figure 3. Steps Taken on International Level for Sustainable Development

As, in the core of the crisis lies lack of accumulation of capital overcoming of the crisis made become the emancipation of the capital an issue on the agenda; that is creation of possibilities for entering and going out of the field, where the capital would accumulate interest in a quickest and easiest way. It means globalization of the capital. So, the capital had been obtained a transinternational qualification. This development means to use the capital of the future generations to overcome the today's crisis and it had put on the agenda the discussion on the "Sustainable Development" (Figure 3).

Between 25-27 September of 2015, has been organized by the UN's Summit on the Sustainable Development. This summit had been based on the Commitments adopted at the Millennium Summit. In the context of a broad – based universal and sustainable development, eliminating the poverty, fighting inequalities and protection of the environment had become the main titles on the agenda of the Summit.

In the Summit our country participated too; (Sachs, 2012): i) Eradicate Extreme poverty and hunger, ii) Provide universal primary education for all; iii) Gender equality and women's empowerment; iv) Reduce child mortality; v) To improve Maternal health; vi) HIV/ AIDS, malaria and other disease combat; vii) Ensuring Environmental sustainability; viii) Setting up a global partnership for development objectives have been identified.

At the conference have been proposed on the agenda questions concerning the future. Among the main headlines discussed on at the conference were: reducing of the poverty in the frame of the sustainable development, green economy and the frame of the corporate sustainable development [Retrieved from].

3. The Means in the Sustainable Development and their Functions

The fact of the sustainable development is affected by many factors and therefore needs to be taken up from a variety of perspectives. The phenomenon of the sustainable development has many means and is intertwined with the society, environment and economy. Each of these means fulfills its distinctive natural functions. In terms of the sustainable development they may be collected under seven titles. They are; renewable energy sources, sustainable environment, technology, education, population, transportation, sustainable production and consumption.

3.1. Renewable Energy Sources for a Sustainable Development

Energy is closely related with the economic, social and environmental dimensions of the sustainable development. Ensuring of the safety of the energy supplying constitutes one of the most important conditions for a sustainable development and increasingly has become one of the vital interests for the actors at the international political scene (Lund, 2007). In this context, in order to minimize the environmental problems by taking into consideration the global threats must be produced alternative solutions for revision of the energy resources.

Energy permanently is, on the agenda for two reasons. First of all, the lack of resources and the second one the damages caused to the environment by the conversion technologies. Giving the relationship between the energy consumption and the standard of living, the amount of resources would never be enough and it appears that the sufficient amount does mean an infinite amount of energy. Therefore it could be expressed, that the way to reach to the infinity pass through the use of natural and renewable resources.

The renewable sources of energy could be collected under six headlines; solar energy wind energy, biomass energy, hydrogen energy and hydraulic energy, geothermal energy, wave energy of water power, including the fusion energy. (Figure 4) (Seyidoğulları, 2013).

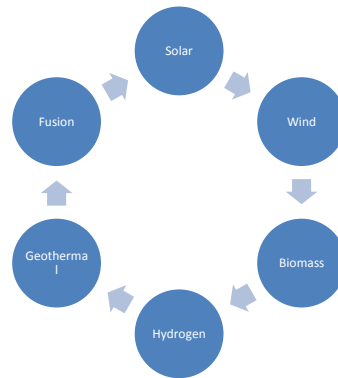


Figure 4. Renewable Energy Sources

In the sustainable development the renewable sources like, solar and wind energy, will support the countries known as fastest growing countries. The biomass and water energy are among the inexhaustible energy sources. The use of energy and the environmental impacts of it, estimated in the context of a sustainable development, could be said, that there is a strong relationship between them.

In order to constitute a sustainability must be increased the use of renewable energy sources, reduction of the environmental pollution and efficient use of the

energy resources. Therefore, in terms of a sustainable development, it appears that the renewable energy sources are the only alternative.

3.2. A Sustainable Environment for a Sustainable Development

The sustainable development will be possible only with a sustainable environment. But on the other hand the sustainability of the environment means providing of the sustainability of the natural resources. The level of the use of the resources should not exceed the speed of the rate of the self refresh; the rate of the pollutants released into the natural resources should not exceed the speed of the processing of the pollutants subjected to purification. Bio-diversity, human health, the quality of the soil and the water, the protection of the plant and animal life are inside of the phenomenon of the environmental sustainability.

The sustainable development, in fact, will be one of the priorities on the agenda of the future communities. But today's mankind is face to face with the environmental problems and in order to solve them it must be; egalitarian, social, just, to live with democracy, to believe in the humanitarian requirements and in the environmental values in whole. It must turn into a community adopted all of these values. In other words, economic prosperity, social justice, environmental protection, providing an improvement. All of these factors indicate that there is a need of complementary and reinforcing objectives ([Commission of the European Communities, 1998](#)).

3.3. The Technology in the Sustainable Development

Today's technologies are developing rapidly, but the demand conditions in the global markets are no longer focused on the technological functions of the products. They are focused on the human health. The biggest reason for this is the damage caused on the human health by the developing technologies. From Wi-fi to Smartphone, almost every of the electronic goods has many sides that can affect the human health adversely. These negative factors are set in front of the sustainable development and come on the agenda of the future generations.

The developing technology do not just affect negative the human health. The developments at the sphere of the medicine are accepted as factors and means necessary for a sustainable development. Many people said that thanks to the developing technology, they are attaining the health faster and do sustain a better life than they did in the past.

3.4. The Education for a Sustainable Development

The importance of the education in its general meaning is an indisputable truth, but beside it must be emphasized the importance of the education in the process of the sustainable development. Leaving a life of more quality to the future generations and turning it into a sustainable state would be possible only by education. In order to provide a life of more quality to the future generations it should be explained to the generations and to the individuals, in a rational way in the process of a lifetime ongoing learning, the importance of a clean environment and its transformation to the next generations.

3.5. The Population in the Sustainable Development

Ages ago the population was accepted as a basic factor whether the countries were powerful. Generally, countries with more population and more soldiers had won in the wars and the countries with relatively less population had been defeated. Today the population is still seen as one of the most important factors determining the power of the countries and their economic size.

In the calculations of the countries based on macroeconomy, the place of the population is important place. Also it has an important place within the future plans of the country. The quantity and quality of the population, and the distribution between the age blocks is important in terms of macro economics accounts

accuracy. The same factors play role in terms of whether the future plans of the country will be carried out. That is why, almost all of the countries work to carry out their population planning with variety of population policies. For example, like as in the definition of the economic science, while supplying the endless needs of the human with limited resources the rate of utilization of these resources is carried out in proportion right to the population

The trend, between the level of development and the number of the population of the country constitutes another subject of discussion. While the number of the population is large in the countries like USA the level of development is on upper rates and in countries like China and India, whose population is intensive, too, the level of development is on middle rate. Therefore in determining of the development level of the countries the amount of the population is not an important factor. The quality, the training and the productivity of the population are important factors, could be said. The potential of productivity is pretty important to make the development sustainable.

3.6. Transportation in the Sustainable Development

Generally, the transportation is a mean providing us to reach to many factors we need in order to sustain our life. For example, while a producer takes a distance by transportation means to produce goods, the consumers reach to these products thanks to the same means. But, while the means of transportation were meeting our needs, and ensure facilities, it should not be overlooked the negative sides of these means.

When looking at the negative aspects of the means of the transportation, without a doubt, the human health and environmental pollution are on the first position. The largest damage of the means of transport on the environment are the carbon emissions. The pollution of the air because of the used fuels and the increasing of the carbon monoxide gas in the air affect the human health and the environmental adversely pollution. The usage of clean energy that nowadays is being developed instead of the fuels harmful for human's health and for the environment is of a big importance in respect of having the future generations a sustainable life of quality.

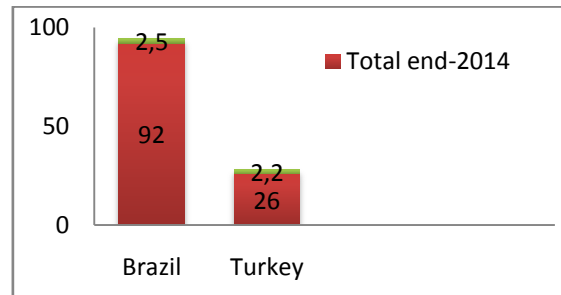
3.7. Sustainable Production and Consumption for Sustainable Development

"Sustainable Production" is: i) Not pollute the nature/not cause environmental pollution; ii) Energy and natural resources protection; iii) Economically viable; iv) For employees, community and consumers reliable and healthy; v) By practicing creative and social useful process and systems to produce goods and services for all working people (Rossi *et al.*, 2006).

Also to meet the endless human needs in the future with the scarce resources, is possible only by creating products and services in a way expressed above. In addition, a sustainable development and quality standard of living can be obtained with these products, is expressed.

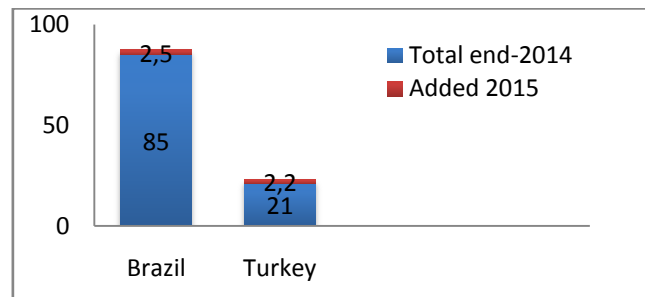
"To ensure a sustainable consumption without throwing into peril the future of the generations, within the circle of the life requires - ensuring a life of better quality, reducing of the waste, which include poison, reducing the use of the pollutant causing environmental pollution and the use of services, which can meet the basic needs." (Tanrıverdi, 2009). As is understood from the definition, the sustainable consumption is of big importance, thinking about the present and future of the generations. The sustainable production is necessary for a sustainable consumption, but the conditions called above should be fulfilled, is expressed.

4. Comparison in Sustainable Development between two countries: Brazil and Turkey



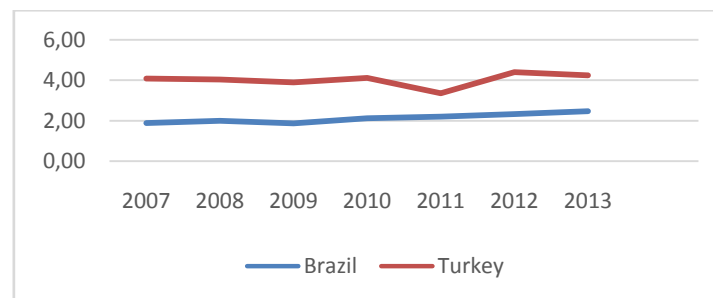
Graph 1. *Hydro – Electric Capacity*
Source: [Retrieved from].

Hydroelectric and solar energy capacity, is among the renewable energy indicators. When looking at the graph, the capacity of hydroelectric energy potential of Brazil as well as hydro power capacity added in 2015, the rate of growth is more than that in Turkey.



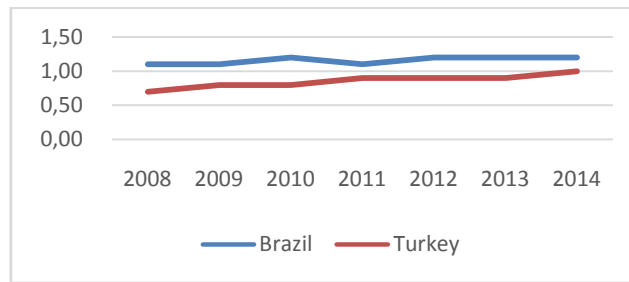
Graph 2. *Solar Energy Capacity*
Source: [Retrieved from].

The chart indicates the potential of the solar power capacity of the two countries. When looking at the graph again, the potential of the solar power capacity of Brazil and the added solar power capacity in 2015, the rate of growth is over than that in Turkey.



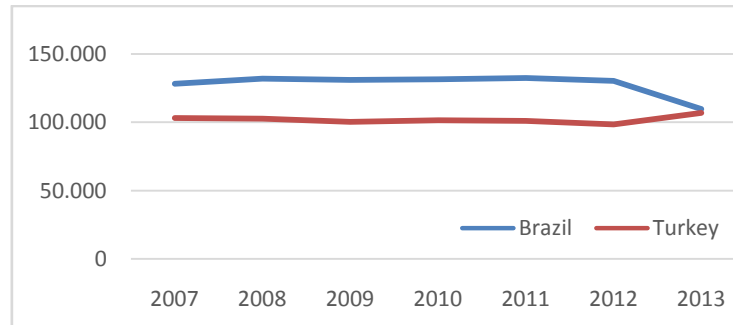
Graph 3. *CO₂ Emissions (metric tons per person)*
Source: [Retrieved from].

One of the most important indicators of a sustainable environment per capita is the amount of CO₂ emissions. According to the years the values of the two countries are indicated on Graph 3. When looking at the table, Turkey's per capita CO₂ emissions are about twice than that of Brazil. It can be expressed, the gap between the two countries, according to the years, showed a steady difference.



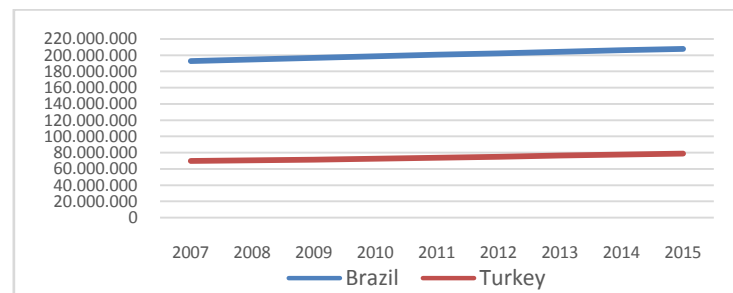
Graph 4. R & D Expenditures (% GDP)
Source: [Retrieved from].

One of the important indicators of the sustainable technology are the expenditures made for R & D. Graph 4 indicates the R&D expenditures of the two countries, according to the years. Brazil's R&D expenditures ratio of GDP, as of the years in the table, are higher than the R&D expenditures of Turkey. Beside the R&D expenditures of both countries according to the years are being raised, can be expressed.



Graph 5. The School Employed, Gross Primary (%)
Source: [Retrieved from].

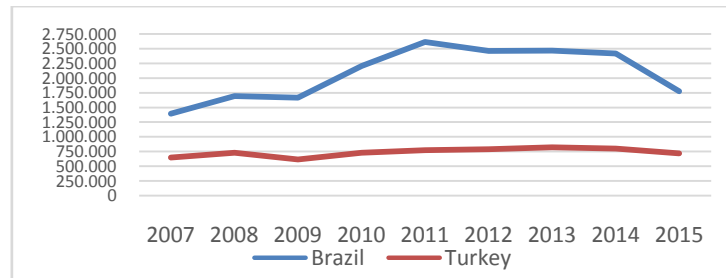
The proportion of school employed is an important indicator in terms of the education. When looking at Graph5 the ratio of school employed of Brazil is higher than the school employed in Turkey. In both countries the ratio of school employed by years is not a stable stance. However, Turkey's largely raising in 2013 and Brazil's largely declining is striking.



Graph 6. Population
Source: [Retrieved from].

As it will be seen from the Graph 6 the population of Brazil is approximately of two- and-a half times that of Turkey. The amount of the population plays an important role in terms of the policies and the socio- economic activities of the country. As the concept of the sustainable development is placed within this

equation, the difference in the population between the two countries can be considered as an important indicator.



Graph 7. GDP \$ (Current Method)

Source: [Retrieved from].

The GDP of Brazil and of Turkey are shown in Graph 7. The GDP is one of the most important macroeconomic indicators. When is looking at the GDPs, Brazil has about two times more income than that of Turkey, could be said. But, the difference in the GDP could not display a stable stance, according to the years of GDPs. In some years the difference is growing and in some years is narrowing.

General Evaluation

At the beginning the renewable energy sources are the most important factors for a sustainable growth. Comparison of the two countries, Brazil has a superior position, when it comes into question, the renewable energy. Therefore, to close the gap between the two countries it should ensure the use of energy of eco-friendly quality, to increase the potential of the renewable sources and to use these sources more effective.

For a sustainable environment one of the most important indicators is CO₂. Related to the amount of the emissions Turkey is on a disadvantaged position, compared to Brazil. In spite of the fact Turkey has a rich biodiversity and approved the “Convention on Biological Diversity” the steps taken by Turkey, relating this issue, are not supported by a stable and comprehensive law. To policies, needed to support the biodiversity, agriculture, industry and technology should be taken up as a whole. Beside the individuals must be aware about the issue of the sustainable environment and supported through various incentives.

The role of the technology in the sustainable development is big and it should not be underestimated. Being in the market under the form of goods and services and the adding values they had created reveal the effects of the technology on the sustainable development. To remain behind the R&D spending of Brazil indicates that our investments on the technology are not enough. In the use of technological devices the emergence of wastes of significant size constitutes in this respect another problem. (Gönel, 2010). In order to be solved this problem the state must use its regulator and supervisor institutions more effective and also the companies must be made take the measures required on this issue.

The education is the most important mean for a sustainable development, could be expressed. The individuals can maximize the private and social advantages of the sustainable development together with the education. The training processes being accessible for the masses ensures to appear individuals; useful for the society who produce new informations, which are increasing the well-being of the society and individuals, who are able to transfer these acquisitions to the generations of the future. When looking at the schooling rate of the two countries it is seen the Brazil is ahead indisputably. Firstly, Turkey should adopt a stable education system. Secondly, application a training policy stimulating the individuals to think rationally, and a training policy based on specialization would be useful, can be

expressed. The last point of the issue, connected with the education which should be taken up, is that the larger portion of the national income should be spent for the education and to inculcate to the individuals the idea of a continues training system, is expressed.

In terms of population, Brazil is ahead again. In the context of the sustainable development the population is an important mean. The population supports the development and specify the trend of the development. But it appears that the main determinant is the quality of the population rather than the quantity and the proportional distribution according to the age and sex. These qualities give information about the social and economic bases and play an important role in determining of the macro- policies of the countries. Therefore, it should be determined (fixed) the optimum amount of the population, family planning and transforming the population policies to all sections of the society, is expressed.

GDP and the growth rates of the countries are the major economic indicators. Compared Brazil and Turkey, it is seen that Turkey is at a rate of growth ahead but relating the GDP Brazil is ahead. Generally, in this respect, is expressed that there is a reverse relationship between the economic development and the environment. Therefore, in order to provide a sustainable development it needs to be lowered some costs that affect the environment and made new changes (Han & Kaya, 2010).

They are as follows: i) By allocation of the resources more emphasizing on the role of the prices; ii) The environmental accounting to be seen within the national accounting; iii) The use of appropriate discount rates in the infrastructure projects affecting the environment.

5. Conclusion

The fact of the sustainable development has become quite debatable in the recent years. Being a many- sided phenomenon, also in terms of the goals to be reached the sustainable development produces some challenges. The definition of the sustainable development and having of many means show the reality, that the goals of the sustainable development could not be reached with a single mean. In addition, the determining of the policies, which will be applied, the unique attributes of the countries and the means which would be applied play an important role, can be expressed.

A stable economic growth, effective population policies, income distribution polices and the application of comprehensive policies are the most important factors for the countries aimed at a sustainable development. In the process of the realization of these factors, all dimensions of the sustainable development should be observed simultaneously. But, in the realization all of these factors it could emerge problems. It is understand that the sustainable development would be applied in different ways in different countries. The implementation of a sustainable development, especially in the developing countries, is costly. In order to realize the sustainable development, on global scale the countries in question should be supported financially and technically.

Turkey had faced for the first time, the concept of the sustainable development in its sixth "Five Year Development Plan". It had been come to an agreement to work in this direction also in VIIth and VIIIth "Five Year Development Plans". In the Xth "Five Year Development Plan" that covers the years between 2014-2018 have been adopted new policies related to the sustainable development. The strategies of Turkey, needed to reach the goals of the sustainable development, are evident. According to that, it appears as one of the most important questions the reduction of the intensive use of energy, increasing its productivity, effective use

and management of the water resources. In the recent years, the logistics showed a rapid development and as result of it must be increased the contribution of the logistics to the potential of the general development. Beside, in the context of “green growth” the manufacturing sector should ensure a clean production, an eco-efficiency productivity and in this way to increase the competition. At first, being the climate change, should be adopted policies sensitive to the environment questions and to develop corporate structure, legislation and standards focused on the sustainable development.

While these steps are being taken, the responsible public institutions and organizations must not be just followers of these policies, but they should be the performers of the policies in question.

In the light of that explained and on behalf of being constituted a general opinion, as finally should be noted, for a sustainable development, the countries, at first, should determine a government’s policy and take steps needed for a better future and a continuous development. The point, that should be focused on with importance is that the sustainability of a life of quality of the future generations would be possible with a sustainable development. Therefore the phenomenon for the sustainable development should not be seen as a necessity. It should be turned into a lifestyle. In this way we can turn the heritage left us into a more quality and liveable state and to transfer it to the future generations.

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