

SUSTAINABLE DEVELOPMENT AND ITS APPLICABILITY THROUGH REGIONAL DEVELOPMENT AGENCIES¹

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ABSTRACT

Enabling the use of regional resources and including local actors in policy making processes are integral components of the sustainable development paradigm. Thus, the view that Regional Development Agencies would mitigate the adoption of sustainable development practices became evident. In this study, implementation of the sustainable development policies via development agencies will be examined. A method which is used towards this aim is to analyze studies which are related to the subject and discussing. As a result of these discussions, it has been seen that, while some targets have already turned into reality, Turkey still has a long road ahead in terms of attaining sustainable development at the regional level.

Keywords: Sustainable Development, Regional Policy, Development Agencies.

Jel Codes: Q01, R58, R59

SÜRDÜRÜLEBİLİR KALKINMA VE BÖLGESEL DÜZLEMDE KALKINMA AJANSLARI ARACILIĞI İLE UYGULANABİLİRLİĞİ

ÖZET

Sürdürülebilir kalkınma politikalarının uygulanmasında, bölgesel düzeyde bölgesel kaynakların kullanımı ve yerel aktörlerin politika belirleme sürecine katılımının daha uygun olduğunun anlaşılması ile birlikte günümüzde bölgesel kurumlar olarak Bölgesel Kalkınma Ajanslarının sürdürülebilir kalkınma politikasının uygulanmasını kolaylaştırılacağı görüşü ortaya çıkmıştır. Bu çalışmada, sürdürülebilir kalkınma politikalarının bölgesel düzeyde kalkınma ajansları aracılığı ile uygulanabilirliği konu edilmektedir. Bu amaca yönelik olarak benimsenen yöntem ise konuyla ilgili çalışmaların incelenmesi ve tartışılması şeklindedir. Bu tartışmalar neticesinde Türkiye’de bölgesel düzeyde sürdürülebilir kalkınma konusunda bir takım ilerlemeler gerçekleştirildiği gözlenirse de henüz alınması gereken uzun bir mesafenin olduğunun da altı çizilmektedir.

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1. INTRODUCTION

In the past, natural resources were thought to be in a self renewing character. In this line of thought, priority was given to economic growth and environmental issues are overlooked. This point of view which also reflects the progressive perspective of Modernism measured human well-being with consumption and made the material wealth the first goal to be achieved. This approach, brought also various social problems in addition to the deterioration of the balance between productive human activity and the environment (Dulupçu, 2001: 1).

At the end of the 1960s, the devastating effect of rapid economic growth on the environment became evident (Torunoğlu, 2004: 1). The limits to growth paradigm that emerged in 1970s put forward an argument that economic growth would bring about the destruction of the environment. However, today's view is that a sustainable development approach could enable a better environmental equilibrium, or at least help prevent its further deterioration (Alagöz, 2007: 2).

In fact, the way we perceive some concepts such as development, growth and welfare must be revised. As Amartya Sen puts it, in a world where environmental and distributive problems are being increasingly prevalent, it will become impossible to view income level and the welfare acquired by that income level as equivalent to each other. "*Changes in the environmental conditions... (changes in temperature, rain, spates etc.) can affect the contribution of a given income level to a person.*" (Sen, 2004: 99)

The unsustainable nature of the current development paradigm also bears its own contradictions within itself. For instance Baudrillard mentions "*the emergence of new scarcities*": "*clean air, green fields, water, silence*" having been produced by the development paradigm that has been sustained until recently but itself is unsustainable (Baudrillard, 2008: 62). 'Development' was supposed to bring about abundance; not new scarcities that are this much dangerous and this much threatening to ourselves.

Sustainable development is a concept which is used very often and which is also oversimplified. However the concept is indeed a very important one with all its differing facets (Gürlük, 2010: 86). Although the concept is claimed to have lost importance, the problem of using economic resources in a way which is both efficient and sustainable still occupy the agenda of governments (Tiryakioğlu and Tuna, 2016: 208).

Hence, it is conceivable to assess the Conference on Sustainable Development that the United Nations (U.N.) organised in Rio on July 2012, 20-22nd in this respect. The U.N. organised yet another conference –Rio+20- twenty years after 1992. Also, the final declaration of a G20 summit in Antalya, Turkey in 2015 states commitment to the 2030 Agenda for Sustainable Development of the U.N.

(Yıldırım and Nuri, 2018: 13-16). But despite this raised level of awareness, the distance actually covered on the issue of sustainable development is far from being satisfactory; and this in turn causes critical voices to rise towards the concept of sustainable development itself (Şahin, 2004). While the debate over sustainable development continues on both national and international levels, its regional component remains in the background.

On an international scale, organisations and programmes such as the World Commission on Environment and Development (WCED) and the United Nations Environment Programme (UNEP) have frequently addressed issues of pollution, poverty and environmental deterioration. On the national level, many countries have formed their own sustainable development agendas, and on the local level organisations such as the Local Agenda 21 have tried to establish the framework for local authorities to lead their sustainable development programmes (Shearlock et al., 1999: 79-80).

The evolution of the concept of sustainable development and its applicability on a regional level is the main subject of this study. The following section elaborates on the concept and the approach of sustainable development. The third section investigates regional policies and the capacity of regional development agencies in implementing them. Applicability of regional policies in Turkey is discussed in the fourth section and final section concludes with a discussion of relevant observation.

2. THE SUSTAINABLE DEVELOPMENT APPROACH

Rapid technological and industrial development in the 20th century, while enabling a fast pace of economic growth; had also important negative effects on the environment (Torunoğlu, 2004: 2). The economic growth paradigm which neglects the environment began to change in the mid-1960s. Especially a report published by the renowned ‘Club of Rome’ attracted attention towards the limits to growth. Various transformations came into play in the 1980s including trade liberalisation, reducing government deficits and even dismantling of some government institutions. These strategies were criticized from two aspects. The first criticism was that the economic growth did not benefit all sections of the society equally. Income inequality, poverty and undernutrition are still the foremost problems facing the world today. The other criticism was concerning the damage done to the environment. In this vein, a change in the development concept to overcome those problems became inescapable. This new concept is the ‘sustainable development approach’ (Haris, 2000: 3-5).

One of the leading studies on economic growth and its sustainability, is the comprehensive report that the Club of Rome initiated in 1972, namely the ‘Limits to Growth’. In this report the unsustainable nature of the current growth paradigm of the time and the urgent need for a new development approach were put forth (Meadows et al., 1979).

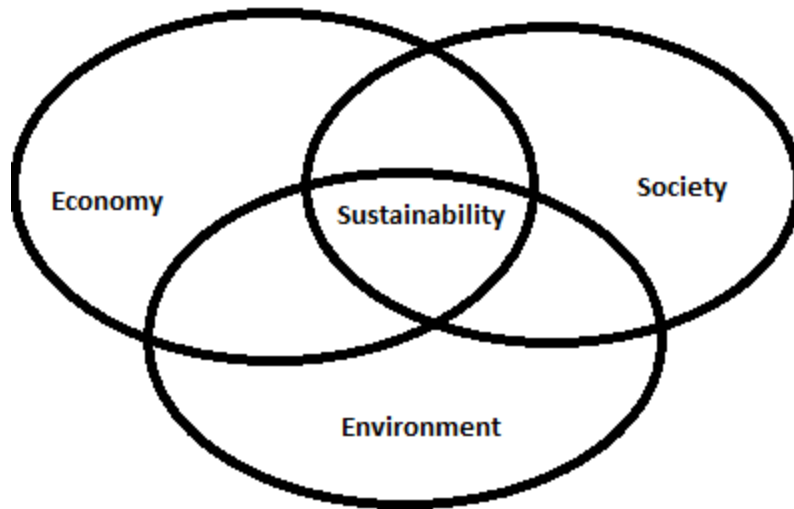
The term, sustainable development was beginning to be popular throughout the world since the 1980s. Being related to environmental policies in the beginning, the term later showed its implications also on the determination of economic and social policies. Widespread use of the concept, occurred with

a report named ‘Our Common Future’, which is also known as the Brundtland Report (Estes, 1993: 1; Menfi and Algan, 2003: 1-3). In this report, sustainable development concept is defined as satisfying today’s needs and expectations, without sacrificing the future (United Nations, 1987: 24). However this definition was deemed ambiguous, incoherent and static by some. And the Commission also faced criticism for not maintaining properly what was sustainable and what was not and for not indicating how the process were to be applied (Biswas, 2005: 71).

Sustainable development gained more ground with the reports of international organisations such as the World Bank and the United Nations (Torunoğlu, 2004: 1) With the Rio Summit which took place in the year 1992, an approach which includes social problems in addition to environmental issues was adopted, and the need for a global effort to tackle social and environmental problems was underlined (Dulupçu, 2001: 1).

The Sustainable Development Model is the only model which includes the environment factor within its analysis in the long-run. This model deals with economic growth and environmental issues by taking into account both efficient use of resources and preservation of the environment. This approach tries to integrate social change, economic development and environmental issues (Sönmez and Bircan, 2004: 6). This point of view can be observed through Figure 1. Sustainability in an economic sense refers to efficient production of goods and services. Environmental sustainability refers to the act of preventing the renewable and nonrenewable resources from excessive usage. And social sustainability is mainly concerned with income inequality, health and education, gender equality and participatory democracy (Haris, 2000: 5-6).

Figure 1. Interaction Between Environment, Economy and Society

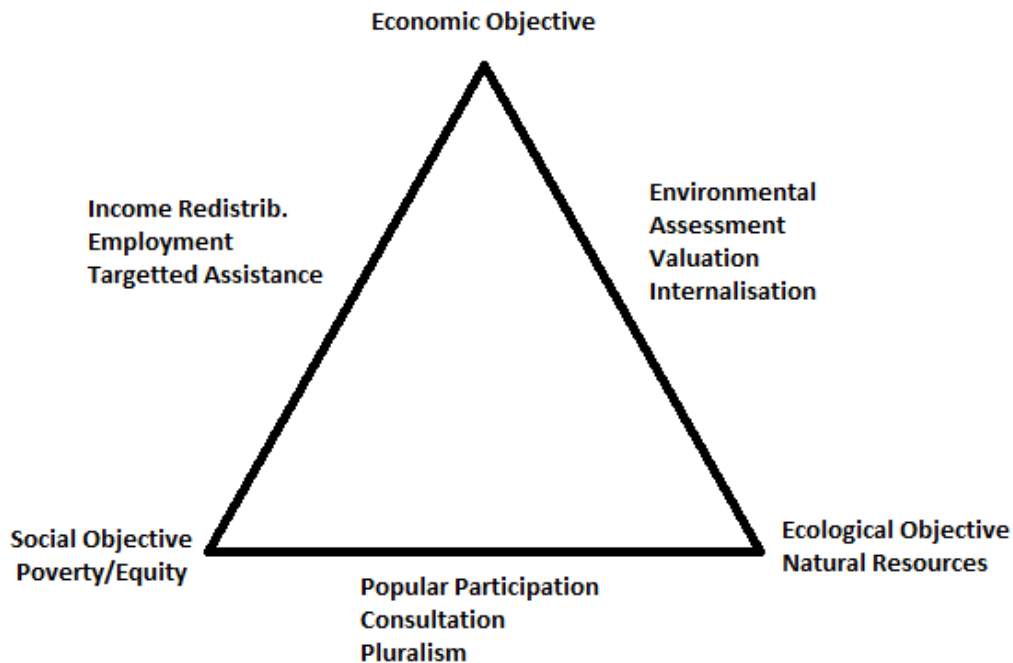


Source: Shearlock et al., 2000: 81

Munasinghe (1993) also notes the economic, social and environmental aspects of development. In the economic sphere, optimality and efficiency in the use of resources stand out. Material and biological sustainability is the focus in the ecological sphere. Finally, in the social sphere, the aim is to maintain the sustainability of our social and cultural system and prevent harmful conflicts. Poverty reduction and ensuring a safe future for succeeding generations also fall into the domain of social sphere (Munasinghe, 1993: 3).

Sustainable development requires those three spheres to be taken together when it comes to economic development. In fact, the interdependence of those three concepts plays a crucial role in maintaining sustainable development. For instance, economy and social spheres interact on the issues of income inequality, poverty reduction and unemployment. Furthermore, when the socio-economic well-being of a society improves, its approach to environmental issues also changes in favor of sustainability. In other words, such a society would have a more stable demand for natural resources. Participation, consultation and pluralism stand out in the area of interaction between the social and environment spheres. A high level of democratic participation must be assured in the management process of environmental resources. The issue of negative externalities also stands out in the area of interaction between the economy and environment spheres. While increased economic activity improves material welfare, it might also have a negative impact on the environment (Gürlük, 2010: 88).

Figure 2. Tradeoffs among the Three Main Objectives of Sustainable Development



Source: Munasinghe, 1993: 2

Sustainable development takes into account all those aspects which are depicted in Figure 2. Thus, sustainable development follows a development path that integrates those economic, social and

environmental aspects. In doing so, it tries to ensure that succeeding generations also maintain at least today's level of economic resources (Gürlük, 2010: 88).

Table 1 shows a set of sustainable development indicators established by the U.N. These indicators aim at guiding countries to conduct their own sustainable development agendas (United Nations, 2007: 9).

Table 1. Sustainable Development Indicators

Social	Environmental	Economic
Poverty	Natural hazards	Economic development
Governance	Atmosphere	Global economic partnership
Health	Land	Consumption and production patterns
Education	Oceans, seas and coasts	
Demographics	Freshwater	
	Biodiversity	

Source: United Nations, 2007: 9

The concept of sustainable development became an important issue of debate in national and international levels in the past years, but it didn't acquire the desired level of attention on the regional/local level. But, the rise of localism and the emergence of regional institutions aiming to promote regional development by adopting regional policies began to attract attention towards the issue of regional development.

It is possible to evaluate the developments in the regional level using these indicators (Table 1). In this vein, Gibbs (1998a) maintains that sustainable development which includes social, economic and environmental factors lies in the center of regional development policy and regional development agencies are the main operators of these policies. Shearlock et al. (2000) also points to legal responsibilities of regional development agencies to promote sustainable development and underlines the importance of integrating social, economic and environmental policies in the regional level. Similarly, Tiryakioğlu and Tuna (2016) study projects backed by development agencies in Turkey and evaluate them based on the above mentioned indicators (Tiryakioğlu and Tuna, 2016: 212).

After concluding a brief overview of the sustainable development concept, we now turn to the emergence of region level problems and the effectiveness of regional institutions in conducting sustainable regional development policies.

3.APPLICIBILITY OF REGIONAL POLICIES BY DEVELOPMENT AGENCIES

Current environmental problems are in most part related to production and consumption processes. Economic development and transition of the socio-economic paradigm continuously increase the needs of individuals whereas the only way to meet those needs is to intervene in the ecological system. In the process of globalisation, income inequalities increase both between countries and within

different regions of individual countries, alongside problems such as unemployment, poverty and pollution. That is why sustainable development takes on environmental, social and economic factors in an integrated fashion. Using regional resources efficiently while ensuring the participation of local actors might be a useful approach in implementing a sustainable development policy (Mengi and Algan, 2003: 90-91) and the view that regional institutions such as regional development agencies could be effective in facilitating the application of sustainable development policies is widely agreed upon.

During the 1970s, with the inadequacy of Keynesian policies in overcoming the crisis, a discourse which is anti-interventionist and in favor of deregulation became popular. In the 1980s, the term 'region' was not being defined with reference to the nation state, but rather it was defined as a sub-unit of the global economic system. Also in this period developments in information technologies led to a shift from the industrial society towards the knowledge society and from a world of nation states to a globalised landscape. With this shift, knowledge has become a major factor of production and also the state has lost its claim as the strongest actor in shaping the future of the masses. In this direction, policies concerning the future of the society has begun to be shaped by participation by many actors. Thus, participatory democracy and corporate governance gained importance (Eraydın, 2002; Tekeli, 2008). With the growing importance of governance, economic actors from various parts of the society, present their views on economic, social and environmental issues and participate in decision making processes (Aydın, 1999).

Good governance and sound public management are prerequisites for a successful sustainable development policy according to OECD (OECD, 2002: 2). Today, the concept of governance reflects high level of interaction between institutions which is carried out by private, governmental and non-profit bodies. Material foundations of governance lies in the act of public, private and non-governmental institutions with the experience of co-regulation and guidance coming together to form policy applications (Güzelsarı, 2003: 19).

Both the emergence of regions as units that can directly interrelate with the global system; and the rise of the concept of governance which defines a new kind of relationship that includes public, semi-public, private sector and non-governmental organisations, transformed the decision-making process that was dominated by the government before (Eraydın, 2008: 15-16).

Today, 'Regional Development Agencies' are institutions that provide coordination and secure information flow between local institutions and organisations. They also include local actors in the decision making process thus provide policy implementation in accordance with regional priorities. There are five main objectives of regional development agencies (Gibbs, 1998a: 366);

- ensuring the economic and social development of the region
- supporting investments in the region,
- to increase the level of human capital in the region,

- to constitute a field of employment,
- to ensure sustainable development.

As one can see, ensuring sustainable development is one of the five goals of regional development agencies. Therefore, putting regional development agencies into effect can be interpreted as an important step in implementing policies for sustainable development.

In practical terms, regional development agencies prepare regional economic strategy documents to integrate social, economic and environmental goals. Sustainable development is expected to be included in these strategy documents, yet it is not clear how this process will operate. Ongoing infrastructure development, internal investments and competitive policies have led to the exploitation of the environment and accelerated the process of environmental degradation. In this respect, sustainable development policy which is among the major objectives of regional development agencies must be taken seriously. Sustainable development policies should be revised for this purpose. Sustainable development policies thus, should involve mechanisms such as the provision of inter-generational equity, democratic decision making processes along with the goal of economic development within environmental improvement (Gibbs, 1997; Gibbs, 1998a).

'RDAs[Regional Development Agencies] will place the principle of sustainable development at the heart of their programmes. To ensure this, the government will give them a specific statutory objective of furthering the achievement of sustainable development which we will monitor closely. They will integrate environmental, economic and social objectives' (Gibbs, 1998b: 9 from DETR, 1997)

Regional Development Agencies have some role in encouraging waste minimization, energy efficiency and environmental technology. A regional economic strategy will be a key factor in integrating economic and social goals. This integration helps to promote sustainable development (Gibbs, 1998b: 10 from DETR, 1997)

Gibbs (1997) argues that sustainability played an important role in the regional development in the UK after new labour government revealed its regional agenda. Thus, sustainable development being one of the most important aims of the regional development. However Gibbs (1998b) stresses that sustainable development was not featured in the list of 12 regional development agencies despite sustainable development itself being one of the five objectives for Regional Development Agencies in the UK. Mitoula et al. (2013) analyzes the contribution of development agencies in ensuring sustainable local development in Greece. The aim of their paper is to investigate whether the Karditsa S.A. development agency contributed to sustainable local development in the Municipality of Lake Plastiras or not. They found that Development Agency of Karditsa SA contributed positively in the sustainable development of the Municipality of Lake Plastiras (Mitoula et al. 2013: 3, 10)

In Turkey, the rationale that was put forward for the establishment decision of Development Agencies included differing levels of development between regions, changing local and global

competitive landscape, EU candidacy process, the need to use financial and human capital efficiently, raised level of environmental awareness, the need for participatory, flexible and technically sound local units (T.C. Sanayi ve Teknoloji Bakanlığı, 2005: 13). In the face of this rationale that was put forward, Development Agencies stand out as institutions which will enable the initiation of the sustainable development paradigm (Güney and Sat, 2015:1081).

Development Agencies support certain kinds of projects by issuing technical and financial support to regional economic units. Technical support includes helping economic units in areas such as training, consulting and communication. Financial support, on the other hand is much more comprehensive. Financial supports include direct financial aids such as provision of interest-free loans and helping firms meet their interest payment obligations. Development Agencies support some outstanding projects by paying their interest obligations. Interest-free loans are provided via intermediary financial institutions for suitable projects, and in direct financing, Development Agencies support chosen projects in the form of direct activity support, guided project support and call for project proposals to be financed by the respective Development Agency (İpek and Kabayel, 2017: 238; T.C. Sanayi ve Teknoloji Bakanlığı, 2018: 14, 103, 107).

Direct activity support aims to support important investments for achieving sustainable development. However, it is necessary to be a public institution such as a university, or a non-governmental organization in order to benefit from this support. Guided project support aims at projects such as the development of new technologies and projects which include university-industry collaboration for sustainable development. These projects will increase the competitive power of the region and provide a sustainable development environment. Call for project proposal is a program which is divided into a subset of programs. These are determined in accordance with the plans and objectives of development agencies. Financial support is then provided by both project owners and Development Agencies (İpek and Kabayel, 2017:238-239).

Some studies have analyzed the importance of resource allocation in ensuring economic, social and environmental sustainable development. For instance, İpek and Kabayel (2017) assess the efficiency of development agencies from this perspective. Their study focuses on the example of Izmir Development Agency, the first development agency which was founded in Turkey. They conclude that, financial supports provided by İzmir Development Agency have been highly effective in encouraging economic sustainability. According to them during the 2008-2011 period, social and environmental projects were also funded by this Development Agency, but not as much as economic projects. During the 2012-2015 period, however, the percentage of social and environmental projects was higher compared to the previous term: 2008-2011 (İpek and Kabayel, 2017: 241). Another study analysing Izmir Development Agency from the sustainable development perspective is Güney and Sat (2015). In this study, the regional plans for the 2014-2023 period prepared by Izmir Development Agency were analyzed in the context of sustainability. After the analysing The Regional Plan of Izmir Development

Agency for the year 2023, the subject of sustainability was found as a strategic priority for the development of the region. Tiryakioğlu and Tuna (2016) also discuss the role and importance of development agencies from the perspective of sustainable development. They found that development agencies made some progress on the implementation of sustainability in their respective regions but the progress is far from being sufficient. For example Tiryakioğlu and Tuna (2016) mention that 14 out of the 26 development agencies were eager to support areas such as environment, renewable energy and clean production. According to them, this is important, but not enough. In this paper, financial support projects of development agencies were analyzed in terms of environmental development. Thus, it was possible to be assess the distribution of resources in the context of sustainable development.

4. APPLICIBILITY OF REGIONAL POLICIES FOR SUSTAINABLE DEVELOPMENT IN TURKEY

Environmental concerns and their region level assessment began with the 7th Five Year Development Plan (1996-2000) in Turkey. During this period, the main issues were watersheds and watershed management. Also in this period, sustainable development programmes were outlined in The National Environmental Strategy and Action Plan (UÇEP), prepared under the leadership of the State Planning Organisation (DPT) and regional development programs such as DOKAP and GAP. In line with the changes in the understanding of what ‘region’ is - now being seen as a local, national and international actor - led to the appraisal of environmental policies as important issues along with other regional issues (Talu, 2006).

After Turkey’s candidacy for the EU membership was initialised in December 1999, the adoption of regional policies consistent with the EU began. In this context the E.U. requested the preparation of ‘Classification of Territorial Units for Statistics (NUTS-Nomenclature of Territorial Units for Statistics) in the short term in the first accession partnership document published in 2001 (The Council of the EU, 2001: 18) and accordingly, 12 units (provinces) were defined as level 1 provinces, 26 units as level 2 and 81 units as level 3.

In the accession partnership document which was published in 2003, establishment of development agencies as regional organisations and the implementation of regional development plans were necessiated (The Council of the EU, 2003: 53). Again in this direction with the Law No 5449 published in the Official Gazette No. 26074 dated 08.02.2006 the establishment of development agencies, their tasks and coordination structure passed into law. Especially with the start of the European Union accession negotiations, development agencies became all the more important today. Development agencies are intended to be the most critical institutions in ensuring the implementation of sustainable development policies and the provision of structural transformation in the field of social development at the regional level.

Development agencies attract interest as important tools that combine economic, social and environmental factors together, while involving different segments of society in a democratic decision making process. In this respect, in line with the objective of sustainable development of development agencies, preparation of a regional development strategy integrating economic, social and environmental objectives is of utmost importance.

In this direction, we studied the initial pre-reports of regional development and regional plans of 26 development agencies established in level 2 regions (2010-2013). Despite various discourses and proposals about environmental protection and sustainability were available in most of the development agencies, issues of their implementation, their aims over the years and their financing method remains ambiguous. The concept, ‘target’ which we will analyse here refers to the existence of a targeted data, which is concrete and quantitative, thus monitorable to evaluate the success of the project and the agency on the issue of sustainable development. For instance, in the case of Cukurova Development Agency concrete goals are set out such as establishment of at least 1 wind power plant by 2013, establishment of 1 solid waste facility, increasing the number of municipal water treatment facilities from 29 in 2006 to at least 40 in 2013. Also among the targets of Izmir Development Agency, concrete data about the targets is possible to trace, such as increasing the percentage of the population served with drinking water by the use of water treatment plants from the 2006 level of 29 percent to 35 percent in 2013; increasing solid waste disposal capacity from 2300 tons/day in 2007 to 4500 tons/day in 2013. Another example, Ahiler Development Agency clearly declares targets such as, increasing the current level of the ratio of the population served with drinking water by the use of drinking water treatment plant from 31 percent to 60 percent in 2013; drawing the SO₂ and PM₁₀ concentration levels from 28 and 57 percent to 25 and 45 percent in 2013 respectively.²

It is important for the remaining agencies to show clear targets in this direction to achieve sustainable development, which is among the main goals of development agencies. Although the general rhetoric of development agencies implies otherwise, lack of a serious attention towards the sustainability aspect of development indicates that, (with few exceptions) the mentality was attached to the ‘old’ development paradigm in the first years of their foundation. This is one of the most important shortcomings faced by development agencies. This justifies the criticism claiming that agencies turn solely to the economic development of their respective regions thus overlooking social and environmental problems. Therefore, it is important to monitor the level of attention given by development agencies towards environmental and social issues in the period ahead.

² Not each and every target of the investigated development agencies are mentioned in this study. It is possible to reach all of the targets from the targets title in the regional plans of those agencies.

Table 2. Proposals and Goals for Sustainable Development of Development Agencies in Turkey (2010-2013)

Region	Development Agency	Proposal	Target
TR10	İstanbul Development Agency	Available	None
TR21	Trakya Development Agency	Available	None
TR22	Güney Marmara Development Agency	Available	None
TR31	İzmir Development Agency	Available	Available
TR32	Güney Ege Development Agency	Available	None
TR33	Zafer Development Agency	Available	None
TR41	Bursa Development Agency	Available	None
TR42	Doğu Marmara Development Agency	Available	None
TR51	Ankara Development Agency	None	None
TR52	Mevlana Development Agency	Available	None
TR61	Batı Akdeniz Development Agency	Available	None
TR62	Çukurova Development Agency	Available	Available
TR63	Doğu Akdeniz Development Agency	Available	None
TR71	Ahiler Development Agency	Available	Available
TR72	Oran Development Agency	Available	None
TR81	Batı Karadeniz Development Agency	Available	None
TR82	Kuzey Anadolu Development Agency	None	None
TR83	Orta Karadeniz Development Agency	Available	None
TR90	Doğu Karadeniz Development Agency	Available	None
TRA1	Kuzeydoğu Anadolu Development Agency	Inadequate	None
TRA2	Serhat Development Agency	Available	None
TRB1	Fırat Development Agency	Available	Uncertain
TRB2	Doğu Anadolu Development Agency	Available	None
TRC1	İpekyolu Development Agency	Available	None
TRC2	Karacadağ Development Agency	Available	None
TRC3	Dicle Development Agency	Available	None

Source: Prepared by the authors from Ministry of Industry and Technology data.

Tiryakioğlu and Tuna (2016) reach interesting results in their study which investigates the sustainability effects of the projects supported by development agencies in Turkey. They conclude that

there are 14 out of 26 development agencies in Turkey during the period of 2008-2014 which announced support programmes related to environment, renewable energy and clean production.

Table 3. Support Program Indicators Related to Sustainable Development (2008-2014)

Total	Environment, Renewable Energy, Clean Production
26 Development Agencies	14 Development Agencies
7.111 Projects	489 Projects
1.9 million Turkish Liras (TL) worth of development agency support/3.5 million TL project budget	192 million TL development agency support /372 million TL project budget

Source: Tiryakioğlu and Tuna, 2016: 215

Looking at the table above, it is obvious that there remains a long road ahead in terms of attaining sustainable development. Nearly half of the development agencies have not announced any support programmes towards sustainable development. Only seven percent of the projects are related to sustainable development and the ratio of the support for those projects in total budget is ten percent (Tiryakioğlu and Tuna, 2016: 215).

Table 4. Support Program Indicators Related to Sustainable Development (2015-2016)

Total	Environment, Renewable Energy, Clean Production
26 Development Agencies	9 Development Agencies
2064 Projects	78 Projects
754.828.454 million Turkish Liras (TL) worth of development agency support/1.275.617.846 million TL project budget	32.585.168 million TL development agency support /62.413.077 million TL project budget

Source: Prepared by the authors from Ministry of Industry and Technology data.

It would be useful to expand Tiryakioğlu and Tuna (2016) by including recent developments to assess the contribution made by Development Agencies to regional sustainable development. When the term 2015-2016 is considered, only nine out of the twenty six Development Agencies gave support to projects of environment, renewable energy and clean production in their regions. Only seventy eight of the projects were connected to such areas whereas the total number of projects were 2064. Moreover, only 63 million TLs were spent on areas such as renewable energy and environment, from a total support budget of 1. 276 million TLs.

Table 5. Environment, Renewable Energy, Clean Production Related Financial Support Numbers (Arranged According to Different Agencies and Years)

Rank	Agency	Title of The Program	Year	Amount of Support	Budget of the Project (Co-financing included)
1	Ankara Development Agency	Environment Sensitive Innovative Applications Support Program	2012	2.461.886,30	4.926.428,92
1	Ankara Development Agency	Sustainable Development Financial Support Program-Profit oriented	2015	1.106.922	2.484.940
1	Ankara Development Agency	Sustainable Development Financial Support Program-Non-Profit	2015	2.548.558	2.972.485
1	Ankara Development Agency	Sustainable Development Financial Support Program-Non-Profit	2016	7.079.697	8.233.102
1	Ankara Development Agency	Sustainable Development Financial Support Program-Profit oriented	2016	820.703	1.641.405
2	Batı Akdeniz Kalkınma Ajansı	Fotovoltaic Solar Power Plant for agricultural irrigation	2017	9.375.000	12.500.000
3	Bursa Eskişehir Bilecik Development Agency	Environment and Energy	2011	6.470.522,34	11.491.313,20
3	Bursa Eskişehir Bilecik Development Agency	Sustainable Industry Financial Support Program	2012	6.243.005,71	8.325.109,20
3	Bursa Eskişehir Bilecik Development Agency	Environment Friendly Financial Support Program (For SMEs)	2014	6.223.143,29	13.930.714,04
3	Bursa Eskişehir Bilecik Development Agency	Environmental Small Sized Infrastructure Financial Support Program	2014	9.489.420,83	18.618.893,86
4	Çukurova Development Agency	Support Program for the Improvement of the Production and Environmental Infrastructure	2014	6.739.466,75	9.031.290,64
4	Çukurova Development Agency	Support Program for the Improvement of the Production and Environmental Infrastructure	2015	6.334.036	8.804.476
5	Dicle Development Agency	Efficient Use of Water Resources in Agriculture Support Program	2013	1.869.369,00	2.492.492,46

Rank	Agency	Title of The Program	Year	Amount of Support	Budget of the Project (Co-financing included)
5	Dicle Development Agency	Efficient Use of Water Resources in Agriculture Support Program	2014	2.258.825,88	3.278.898,62
5	Dicle Development Agency	Financial Support Program for Urban and Environmental Infrastructure Improvement	2015	23.290.136	34.253.543
6	Doğu Akdeniz Development Agency	Financial Support Program for the Improvement of Sustainable Production and Innovation	2012	22.805.371,73	46.611.440,7
6	Doğu Akdeniz Development Agency	Financial Support Program for the Improvement of Sustainable Production and Innovation	2014	14.200.349,81	29.802.381,45
7	Doğu Anadolu Development Agency	Financial Support Program for Promoting Renewable Energy Use	2012	4.174.374,43	7.792.312,74
8	Doğu Marmara Development Agency	Clean Production Financial Support Program	2013	3.894.603,82	9.482.379,52
8	Doğu Marmara Development Agency	Clean Production Financial Support Program	2014	6.323.918,58	13.331.901,92
8	Doğu Marmara Development Agency	Clean Production Financial Support Program	2015	2.563.090	5.140.568
9	Güney Ege Development Agency	Financial Support Program for the Environment	2014	5.892.559,4	12.602.563,52
9	Güney Ege Development Agency	Renewable Energy Financial Support Program (Non-Profit)	2015	3.953.050	8.472.597
10	İstanbul Development Agency	Ecology and Energy Friendly Istanbul Financial Support Program towards Enterprises	2011	3.748.207,67	8.120.439,53
10	İstanbul Development Agency	Ecology and Energy Friendly Istanbul Financial Support Program towards Non-Profit Organizations (NPOs)	2011	4.195.790,65	4.730.799,43
10	İstanbul Development Agency	Disaster Readiness Financial Support Program	2012	7.085.912,13	8.321.366,82
10	İstanbul Development Agency	Disaster Readiness Financial Support Program	2014	13.387.483,75	15132406,86
10	İstanbul	Efficient and Clean	2014	14.207.613,49	16.145.674,7

Rank	Agency	Title of The Program	Year	Amount of Support	Budget of the Project (Co-financing included)
	Development Agency	Energy Financial Support Program			4
10	İstanbul Development Agency	Efficient and Clean Energy Financial Support Program (for business)	2014	2.620.814,75	5.490.324,56
11	İzmir Development Agency	Tourism and Environment	2009	10.612.384,35	17.960.966,44
11	İzmir Development Agency	Renewable Energy and Environment Technologies (for business)	2012	11.273.858,93	25.164.001,67
11	İzmir Development Agency	Renewable Energy and Environment Technologies (for NPOs)	2012	13.127.508,91	20.713.332,03
11	İzmir Development Agency	Peninsula Sustainable Development	2015	5.775.947	8.454.851
11	İzmir Development Agency	Renewable energy and Environmental Technologies	2016	6.643.855	13.330.289
12	Karacadağ Development Agency	Renewable Energy Financial Support Program (for business)	2014	730.030,00	1.460.060,00
12	Karacadağ Development Agency	Renewable Energy Financial Support Program (for NPOs)	2014	2.771.282,42	5.225.722,86
12	Karacadağ Development Agency	Renewable Energy and Environment Financial Support Program	2016	1.333.699	2.982.000
13	Kuzey Anadolu Development Agency	Environment and Tourism Infrastructure Financial Support Program	2011	3.483.882,04	7.926.607,86
13	Kuzey Anadolu Development Agency	Project: Power from the Sun	2017	4.223.514	4.692.794
14	Orta Anadolu Kalkınma Ajansı	Renewable Energy and Sustainable Competitiveness	2015	12.137.889	26.844.358
15	Orta Karadeniz Development Agency	Renewable Energy Financial Support Program for SMEs	2014	2.083.927,34	4.655.250,00
15	Orta Karadeniz Development Agency	Renewable Energy Small Sized Infrastructure Financial Support Program	2014	8.496.909,1	21.766.432,30
15	Orta Karadeniz Development Agency	Natural Life Oriented Development Project for the Kızılırmak Delta Region	2017	4.946.464	6.995.000

Rank	Agency	Title of The Program	Year	Amount of Support	Budget of the Project (Co-financing included)
16	Zafer Development Agency	Tourism, Energy and Environment Infrastructure Financial Support Program	2014	13.958.788,26	34.005.398,60
16	Zafer Development Agency	Sustainable Environment Infrastructure Financial Support Program	2016	12.260.660	24.850.677

Source: Tiryakioğlu and Tuna, 2016: 220-221; and partially produced by the authors using Ministry of Industry and Technology data.

Furthermore, 51,53 percent of the projects which contribute to sustainable development such as renewable energy and clean production projects were supported by development agencies in Turkey in the 2008-2011 period, while the rest (48,47) were financed from equity. The highest ratios of support relative to total amount of project are provided by Istanbul, Çukurova and Dicle Development agencies respectively. The lowest ratios on the other hand point towards Kuzey Anadolu, Zafer and Orta Karadeniz Development agencies. Besides, in the year 2010, there seems to be no support given to such projects at all which is interesting (Tiryakioğlu and Tuna, 2016: 215-216).

When the 2015-2016 period is considered, Development Agencies supported 57 percent of the projects related to environment, renewable energy and clean production, whereas 43 percent of the projects were to be financed by the owners of the projects or their conglomerates. In this period, Dicle, Orta Anadolu and Zafer development agencies were the Development Agencies which gave the highest amounts of support. Karacadağ and Doğu Marmara development agencies, on the other hand were the Development Agencies that gave the lowest amount of support. In the period of 2016-2017, Batı Akdeniz, Kuzey Anadolu and Orta Karadeniz development agencies gave support to projects related to environment, renewable energy and clean production. Batı Akdeniz development agency gave a total amount of 9.3 million TLs, whereas Orta Karadeniz development agency gave a support worth of 4.2 million TLs. The amount provided by Kuzey Anadolu development agency is 4.2 million TLs.

The number of Development Agencies supporting environment, renewable energy and clean production projects in Turkey in 2017 is sixteen. This number was fourteen in the 2008-2014 period. In other words, sixteen out of twenty six Development Agencies are interested in the environmental and sustainability aspect of development and supported these projects. Fourteen of this sixteen agencies have already issued support in the past, two other Development Agencies– Batı Karadeniz and Orta Anadolu development agencies – were added to them thus making the number sixteen.

5. CONCLUSION

The development approach of the past which relates economic development to quantitative factors such as the production and consumption of goods and services and their distribution, is today being replaced with an approach that integrates qualitative factors such as social and environmental

improvement. This development model which integrates economic, environmental and social factors is known as the sustainable development approach. Especially the destruction of natural resources, pollution and increasing inequality in the distribution of income attracted the focus of attention to this area. However, regional implications of the sustainable development system continued to lack interest for some time.

Since the 1980s, with the emergence of concepts such as governance and regionality, development agencies as regional institutions began to attract widespread attention. Indeed, development agencies, while operating in the regional level and including various parts of society in policy determination processes make active contribution to governance. In addition, development agencies, are key operators of the sustainable development model, which facilitate an integrated approach towards social, economic and environmental issues. The lack of practice on sustainable development policy on a regional level can be overcome via development agencies, as ensuring sustainable development is one of their main goals.

When the initial regional plans of development agencies in Turkey are examined, it is plausible to state that they do have a vision for sustainable development, however in most of the plans, this vision was not supported with concrete objectives.

The initiative taken by 14 of the development agencies and their support for sustainable development related projects are positive signs for future of environmental policies in Turkey from their first establishment to 2014. In the 2015-2017 period, Development Agency support toward environment, renewable energy and clean production project continues. In this period, sixteen Development Agencies supported such projects. But fourteen of those have already supported such Project in the previous years. Only two additional Development Agencies have joined them. This increase is far from being sufficient. Development Agencies must be more inclined towards the subject of environment. If this happens, more sustainable and habitable regions might be achieved, which would lead to more sustainable countries and a more sustainable world economy.

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