

# A NEW CHAPTER IN INDUSTRIAL TRANSFORMATION: ENVIRONMENTAL GOODS

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# One Way Ticket



“Countries increasingly seek to reshape their economies by targeting public support to specific firms and sectors” wrote the IMF in its World Economic Outlook in October last year<sup>1</sup>. I was surprised – then as much as I am now – that this striking sentence didn’t attract more attention, as I believe it marks a breaking point for industrial policies.

Rather than being the harbinger of a change to come, the IMF is rather speaking of “winds of change” that have already started to blow. The US government buying shares and stakes in certain industries and companies, trade restrictions becoming more widespread around the world in technology and mining, higher trade barriers... Well, the wake-up call has been there for some time and, indeed, is loud and clear.

In the very same report, the IMF underlined that the number of new industrial policy interventions has increased significantly since 2009, with a notable gain in pace since the pandemic. Accordingly, as of 2022 there were 1,134 industrial policies in developed countries and 392 in developing countries. Mark the figures!

In Türkiye, many people focus on wages and the currency when it comes to competitiveness. Even if we take them as relevant industrial policies, what about the remaining 300+ industrial policies that exist in other developing countries, which we forget to or deliberately don’t talk about in Türkiye? Obviously, we must be more creative in designing industrial policies, but how?

Usually, it is easier for people to be convinced of the need for better and more active industrial policies. Yet things suddenly become difficult when it comes to delivering solid suggestions. Indeed, this very report aims to fill this gap and delivers a solid industrial policy path. We believe the report is proactive at a time when Turkish producers have been losing market share to China in certain products in the EU market, a topic that hasn’t yet been given the necessary attention<sup>2</sup>.

<sup>1</sup> <https://www.imf.org/-/media/files/publications/weo/2025/october/english/ch3.pdf>

<sup>2</sup> <https://www.tskb.com.tr/uploads/file/bir-veri-bir-yorum-ab-pazarinda-gorunmeyen-baski.pdf>

To make our policy suggestion more applicable, the report goes beyond sectors and breaks the strategy down to products. This policy path we set out also fits our main mission of employing new industrial policies while promoting social capital.

For this purpose, international trade stands as a good starting point as it can incentivize innovation as well as investment in environmental technologies (Aghion et al., 2022). From this perspective, repositioning Türkiye's trade strategy with a focus on environmental goods will also serve to place the country as part of a new international trade approach which is becoming more digital, green and inclusive.

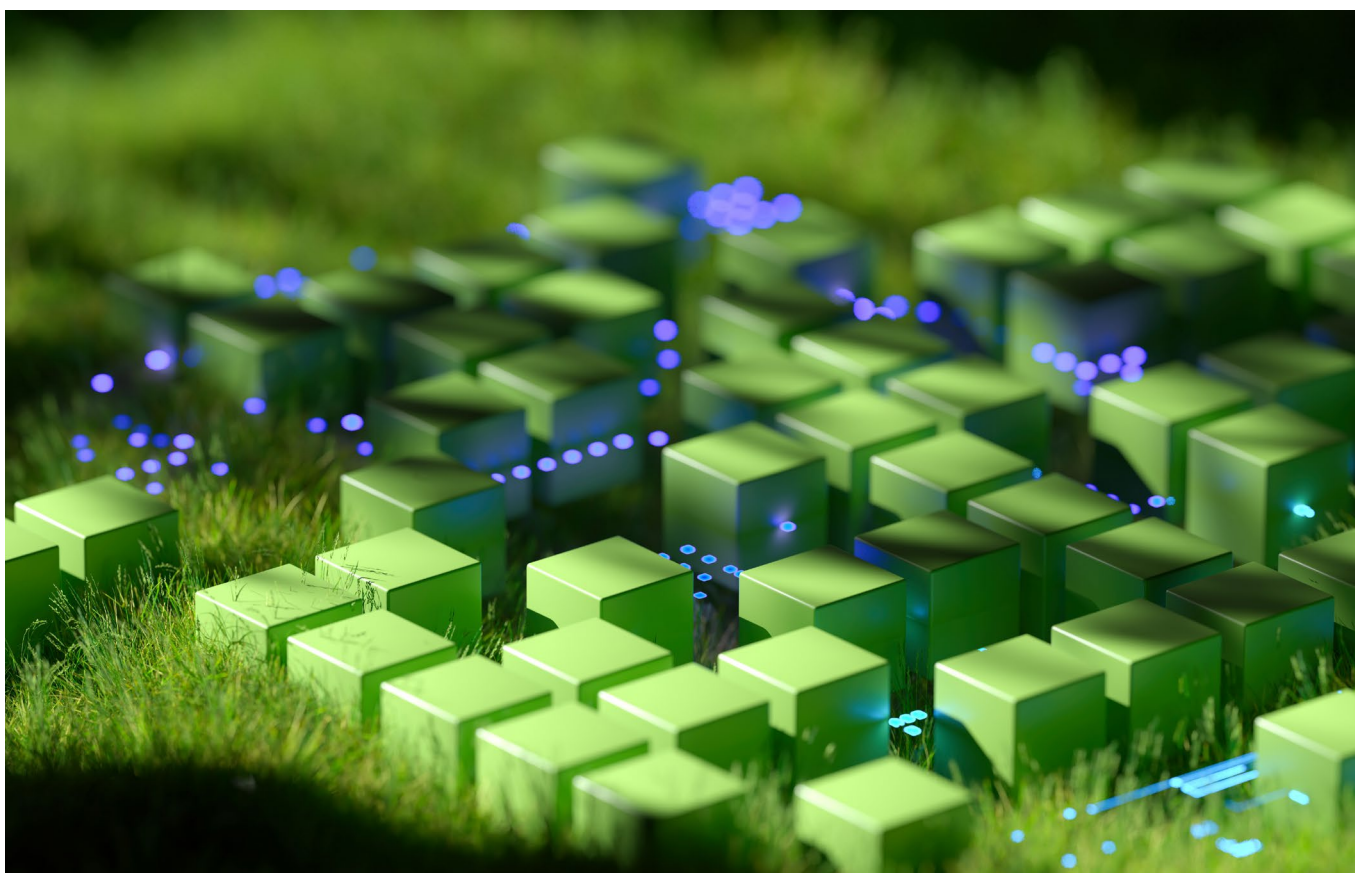
So here we are, telling you about "environmental goods" whose trade has grown more rapidly than the trade in total goods over the past two decades around the world<sup>3</sup>, with Türkiye being one of the beneficiaries. These products are also more complex according to the definition of Harvard University's famous Economic Complexity Atlas methodology. In other words, these products can help us "climb the ladder", as development economists say, which is passionately what we want in Türkiye's development path. The ladder is right in front of us and we offer you a one-way ticket to better production, better trade and a stronger society!

**Burcu ÜNÜVAR, PhD**

Director - Chief Economist

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<sup>3</sup> [https://www.wto.org/english/res\\_e/booksp\\_e/wtr23\\_e/wtr23\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/wtr23_e/wtr23_e.pdf)



# Achieving Structural Transformation through Environmental Goods

The transformation aimed at tackling the ecosystem crisis not only has an environmental dimension but also has a strong **industrialization** dimension. The required transformation of energy systems can only be achieved through the development and rollout of industrial inputs dedicated to this sector. After a series of discussions that have been ongoing since the 1990s, products of this kind are classified as **environmental goods**.

## ***What are environmental goods?***

*According to the definition set out by the OECD and Eurostat (1999), environmental goods consist of goods and services which aim to measure, prevent, limit, minimize or eliminate the environmental harms inflicted on water, air and soil. This framework includes activities that address problems related to waste, noise and ecosystems, as well as clean technologies, products and services that seek to reduce environmental risk, lower pollution and minimize the use of natural resources.*

A crucial point in this definition is that the classification of environmental goods is based **not on the production process but on the end-use of the goods**.

The manufacture of these industrial goods, which provide inputs for the green transition, and their trade without barriers facilitate access to them. The wider diffusion of these products—which reduce environmental risks, cut pollution and minimize the consumption of resources—also enables the more rapid worldwide spread of environmental technologies embedded in them (OECD, 2025). From this perspective, the increased global accessibility of environmental goods contributes both to the efforts to tackle the ecosystem crisis and also to the rollout of the related technological transformation.

In the introductory study conducted on this topic by TSKB Economic Research, Tur and Alkan (2023) presented the framework of environmental goods, highlighted that demand conditions would strengthen as the green transition gains momentum, underlining Türkiye’s strong and growing export performance in this product group. In short, the authors emphasized that Türkiye’s total share of EU imports of environmental goods, as well as their export unit prices, has demonstrated a faster upward trend when compared with other product groups.

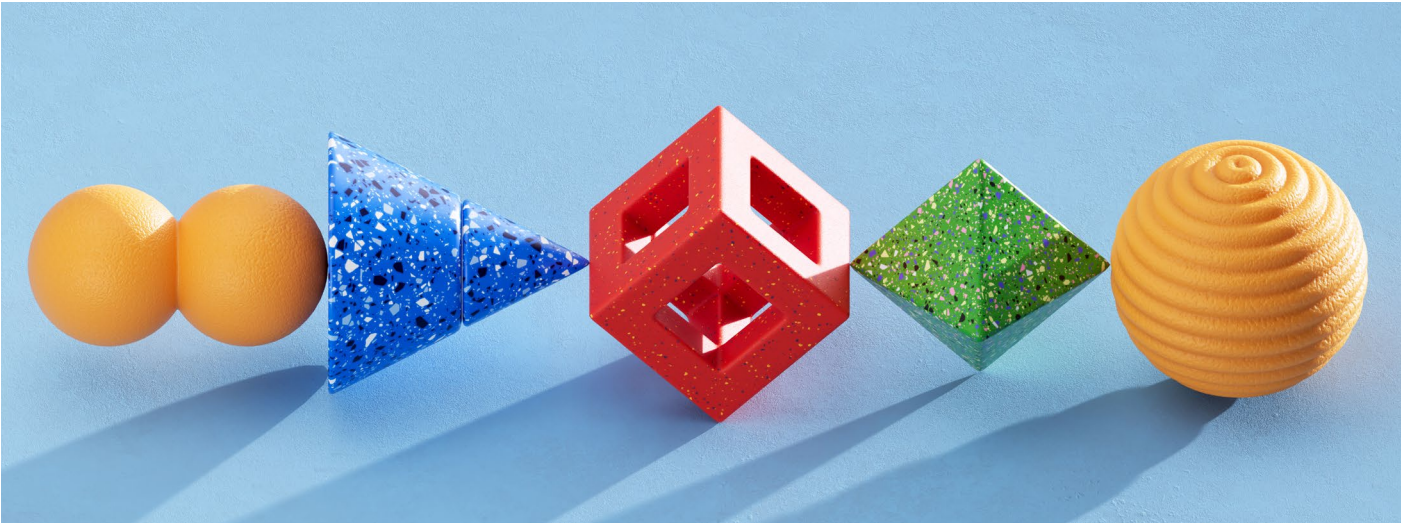
In the current study, we shift the focus to the production pattern side. As the green transition has gained pace, the expected increase in demand for a particular product group may be a necessary condition if the country is to adapt its production pattern in favour of these products; however, it is not in itself sufficient. What really needs to be assessed is what kind of structural contribution this orientation provides beyond the foreign-exchange earnings that the product group would bring to the country. If we can demonstrate this contribution, we would gain a clearer picture of the transformation of the production pattern within the framework of New Industrial Policies and the financing opportunities offered by Multilateral Development Banks.

The following questions arise within this framework:

- Does the production of these goods generate a productive skill set?
- Can the acquired skills be transferred to other products?
- Does producing these goods lead to an improvement in the country’s production and export structure?

In this study we shall examine, through these questions, whether turning toward environmental goods lifts Türkiye’s production pattern to a higher level of quality and complexity.

In line with the changes, transformations and diversification taking place in the global economy and external trade, the OECD updated the list of environmental goods in 2025 (OECD, 2025). This update also demonstrates that the categories of environmental goods are not static; they constitute a dynamic field that adapts to evolving global conditions. In this report, we first address Türkiye’s current state of environmental goods exports within this new classification framework and then discuss the role of environmental goods in the industrialization and development process drawing on the indicators from the **Economic Complexity Atlas**.



# Environmental Goods in Türkiye's Foreign Trade

The green transformation goes beyond the development of renewable energy sources. It also brings about a shift in areas such as tools that enable resource-efficient production, waste management and tackling air and noise pollution. Accordingly, the product portfolio should evolve in this direction. Which processed or semi-processed products stand out in this transformation? As indicated by the **new industrial policy**, the answer must be based not on sectors but products.

The OECD (2025) groups environmental goods used in the transformation of the global economy into 11 different categories. Türkiye's total exports in these categories have reached a significant level (Table 1).

**Table 1:** Environmental Goods in Türkiye's Export

Number of Goods	Goods' Categories	Export 2024 (billion \$)		Share of Environmental Goods	
		2024	3Q_2025 (billion \$)*	2024	Share 3Q_2025 (%)**
91	Renewable energy plant Index	10,03	7,67	32,10	33,21
33	Waste water management and potable water treatment	4,34	3,21	13,90	13,87
42	Environmental monitoring, analysis and assessment equipment	0,59	0,44	1,89	1,89
38	Management of solid and hazardous waste and recycling systems	2,15	1,64	6,89	7,11
13	Air pollution control	0,94	0,70	3,00	3,01
63	Cleaner or more resource efficient technologies and products	8,39	5,77	26,84	24,96
46	Heat and energy management	2,00	1,50	6,40	6,51
3	Noise and vibration abatement	2,08	1,64	6,67	7,11
4	Clean up or remediation of soil and water	0,14	0,11	0,46	0,48
9	Environmentally preferable products based on end use or disposal characteristics	0,57	0,42	1,82	1,82
3	Natural resources protection	0,01	0,01	0,03	0,04
<b>345</b>	<b>Environmental Goods</b>	<b>31,24</b>	<b>23,11</b>	<b>11,94**</b>	<b>11,52**</b>

\*Based on annualized data.

\*\* Share of environmental goods in total exports (%).

Source: Trademap, OECD, TSKB Economic Research

The number of environmental goods rose from 248 in the old list to 345<sup>4</sup> after the OECD's 2025 update. There are various products identified by six-digit Harmonized System (HS) codes under each of the 11 categories shown in Table 1. Figure 1 sets out how many of the products classified as environmental goods belong to each production branch.

**Figure 1: Number of Goods Per Activity**



Source: OECD, TradeAtlas, TSKB Ekonomik Arařtırmalar

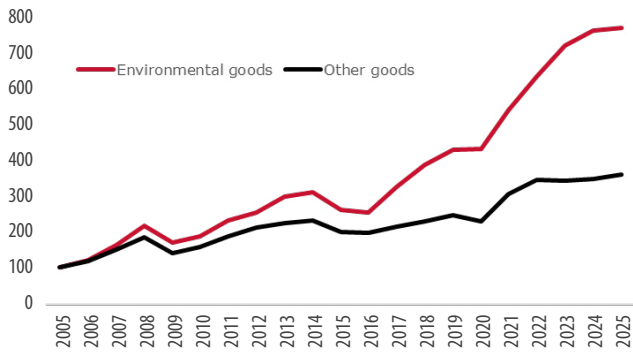
According to the figure, 65% of the environmental goods (161 items) fall under the Machinery, Electronics and Electrical Equipment, followed by Medical Products and Measuring Instruments (50 items). The branch with the fewest environmental goods (three items) was Wood and Wood Products.

Based on the old list, Türkiye's annualized third-quarter 2025 export of environmental goods amounted to USD 20.6 billion; under the new list, this figure rises to USD 31.5 billion. Using the old list, the share of environmental goods in total exports was 7.6%, while for the updated list, the share increases to 11.7%.

The share of environmental goods in Türkiye's exports continues to grow year by year, reaching almost 12% in the annualized data for Q3 2025 (Table 1). When compared with other goods (that is to say, all goods excluding environmental goods), the export performance of environmental goods is markedly higher (Figure 2). Environmental goods have also registered a rising performance in the trade balance, especially since 2017. Although the product group slid back into a trade deficit after the pandemic after having generated a trade surplus in 2009, the deficit shrank from USD 9.5 billion in 2016 to USD 3.8 billion in 2024. Moreover, while Türkiye's market share in the EU (the destination for about half of total exports) has been steadily increasing, the share of environmental goods has exhibited a pronounced positive divergence since 2017 (Figure 3).

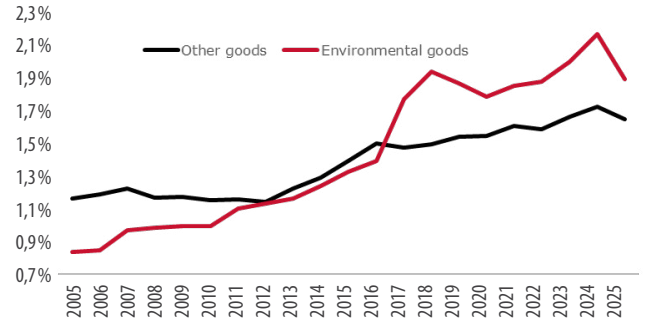
<sup>4</sup> The categories with the most notable changes in product count were Renewable Energy Plants (37 more products), Heat and Energy Management (20 more products) and Cleaner or More Resource Efficient Technologies and Products (17 more products).

**Figure 2: Comparative Export Performance (2005=100)**



Source: TradeMap, TSKB Economic Research

**Figure 3: Türkiye's Share in EU Imports**

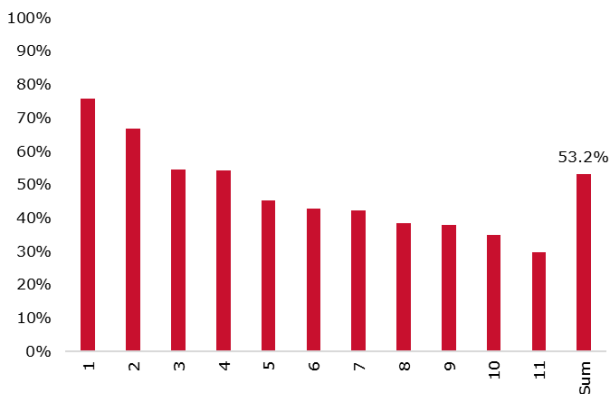


Source: TradeMap, TSKB Economic Research

A 53.2% share of Türkiye's annualized exports of environmental goods is directed to EU countries. The even higher ratios in some product groups is noteworthy. For example, Türkiye exports 75.8% of its Cleaner or more resource efficient technologies and products category (which represents 26.2% of total environmental goods exports) to the EU, followed by 66.8% in the Noise and vibration abatement category (6.9% of total environmental goods exports). The relative importance of the EU market for the different environmental goods groups is set out in Figure 4.

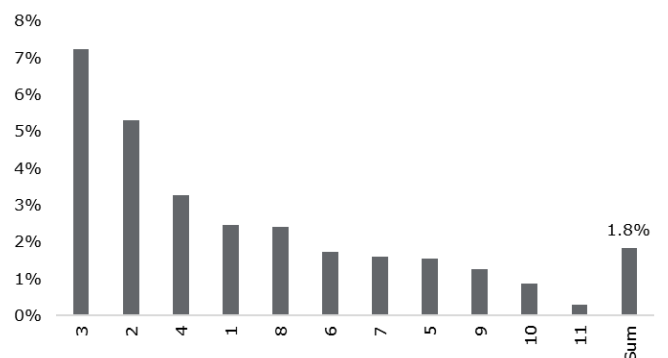
Conversely, Türkiye's share in EU imports of environmental goods stands at 1.8%. This relatively high figure indicates that Türkiye is a significant supplier for the EU. Likewise, there are differences between product groups. Türkiye's share in EU import of environmental goods is the highest for the Environmentally preferable products based on end use or disposal characteristics category (1.85% of total environmental goods exports) at 7.2%, followed by the Noise and vibration abatement Products category with a 5.3% share (Figure 5).

**Figure 4: The EU's Share in Türkiye's Environmental Good Exports**



Source: TradeMap, TSKB Economic Research

**Figure 5: Türkiye's Share in the EU's Imports of Environmental Goods**



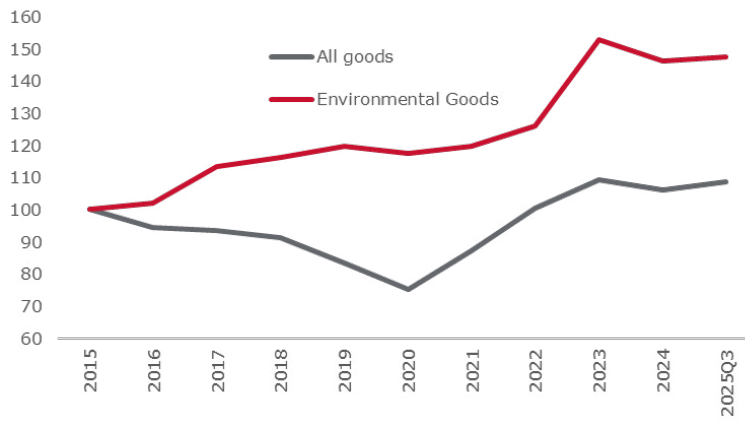
Source: TradeMap, TSKB Economic Research

**Table 2: Numbers Corresponding to Product Categories**

Cleaner or more resource efficient technologies and products	1
Noise and vibration abatement	2
Environmentally preferable products based on end use or disposal characteristics	3
Clean up or remediation of soil and water	4
Renewable energy plant	5
Waste water management and potable water treatment	6
Heat and energy management	7
Natural resources protection	8
Management of solid and hazardous waste and recycling systems	9
Air pollution control	10

As well as Türkiye's increased share of EU imports of environmental goods over the last ten years, the rise in the unit price of these goods has also outpaced the overall export basket. While the price of all goods rose by 8.7% between 2015 and 2025, the price of environmental goods increased by 47.4% in the same period (Figure 6).

**Figure 6: Unit Prices in Türkiye's Exports (2015=100)**



Source: TradeMap, TSKB Ekonomik Arařtırmalar

In summary,

- The export performance of environmental goods is superior to that of other goods,
- Türkiye's share in environmental goods exports to EU is higher than its overall export share and continues to rise, and
- Unit export prices of environmental goods are increasing more rapidly than prices of the overall export basket.

Therefore, concentrating on environmental goods simultaneously meets Türkiye's input needs in its green transition process and, by exporting these products, contributes to the green transition of its trading partners.

The world is currently in the midst of many transformations. As we have emphasized in previous work, the [ecosystem-friendly transformation](#), [technological transformation](#) and [social transformation](#) are taking place simultaneously, not sequentially. In the context of these intertwined transformations, economies must regularly reassess their production compositions and productive capabilities of they are to remain competitive.

Gaining a competitive advantage in environmental goods and expanding production capacity in this area also implies an industrial transformation. Whether a country chooses to evolve its industry in this direction should not be judged solely by the foreign-exchange earnings or net-export potential of those products. Such a decision entails changes in production capacity, new capital accumulation, new regulatory frameworks and the development of new skills. Understanding the impact of adding these innovations to a nation's productive capacity requires evaluating the position of environmental goods within development-oriented indicators. Accordingly, the remainder of the report assesses environmental goods using the metrics presented in the Economic Complexity Atlas.

## Economic Complexity Atlas and Environmental Goods

The Economic Complexity methodology, developed by a group of researchers at Harvard University and the Massachusetts Institute of Technology (MIT) (Hidalgo and Hausmann, 2009; Hausmann et al., 2014), is based on *productive knowledge*. According to this approach, each product stores within it the productive knowledge required to make it. Consequently, countries increase their stock of productive knowledge not by manufacturing existing products in larger quantities, but by creating new ones. The knowledge that a product carries and that is used to produce it is called *capability*. In other words, a country's stock of productive knowledge constitutes its set of capabilities. Under the Economic Complexity methodology, as the number of competitive products that a country produces grows, its capability stock is assumed to grow as well; the manufacture of more complex products is taken to indicate the presence of more complex capabilities. The methodology draws on information concerning the products which countries produce competitively to calculate the complexity of the products and the economies. Technical details of the methodology and the associated metrics are set out in the technical appendix to the (Tur and Alkan, 2023). New technical calculations not included in the report, together with a summary of the core concepts, are provided in the Technical Box.

We use the export data compiled in the BACI international trade database by CEPII (Le Centre d'Études Prospectives et d'Informations Internationales) to compute the Türkiye's complexity metrics. The data set contains 2023 export figures for 5,606 products classified according to the six-digit HS codes (2022 version) for 226 countries. Türkiye holds a competitive advantage in 26% of the 5,335 products in its export basket (1,391 products) and in 22% of the 345 environmental goods (77 products).<sup>5</sup>

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<sup>5</sup> We define "having a competitive advantage" as having Revealed Comparative Advantage (RCA) ratio of more than 1.5.

# Technical Box

**Product Complexity Index (PCI):** The level of capability needed for a product to be produced.

**Density:** How close a country's existing capabilities are to being able to produce a given product efficiently.

**New product (RCA < 1.5):** Products for which the country has no competitive advantage.

**Strength of linkage with other products (Path):** Total connectivity of a potential target product with the products that are new for the country.

**Complexity Outlook Index (COI):** An indicator of how close a country's capabilities are to new products.

**Complexity Outlook Gain (COG):** The change in the COI that occurs when a product starts being manufactured with a revealed comparative advantage.

**Feasibility:** The attainability of a product is given the country's existing productive capabilities.

**Attractiveness:** The attraction of a product, fundamentally based on a product's Complexity Outlook Gain (COG); the higher the product's COG, the more attractive it is.

Formulas for the COI and COG, which are not included in the [technical appendix](#) of the previous report, appear in equations 1 and 2. The other metrics used in the formulae and required for the calculations are listed in the technical annex of the previous report.

## Complexity Outlook Index (COI)

$$COI_c = \sum_p (density_{c,p})(1 - M_{c,p})PCI_p \quad (1)$$

If new products (RCA < 1.5) are of higher quality (higher PCI) and are closer to the country's capability basket (higher density), the COI will correspondingly be higher. The COI is calculated by considering the country's potential, the quality of the products and the country's existing capabilities.

## Complexity Outlook Gain (COG)

$$COG_{c,p} = \left[ \sum_{p'} \frac{\varphi_{pp'}}{\sum_{p''} \varphi_{p''p'}} (1 - M_{c,p'}) PCI_{p'} \right] - (density_{c,p}) PCI_p \quad (2)$$

In the COG formula, the first term in brackets represents the change in the COI that would occur when a new product starts being produced, while the second term refers to the loss resulting from the product no longer being counted within the COI (Yıldırım, 2018).



Table 3 sets out the median values of the Product Complexity Index (PCI), density and path metrics calculated using the Atlas methodology for the groups of environmental goods and other goods. The median complexity of environmental goods is roughly twice that of other goods. Environmental goods also have a higher median path value. Conversely, the median density values for environmental and other goods are relatively similar.

**Table 3: Complexity Metrics: Summary Statistics**

	<b>Count</b>	<b>PCI*</b>	<b>Density*</b>	<b>Path*</b>
<b>Environmental Goods</b>	345	1,86	0,25	706
<b>Other Goods</b>	5261	0,95	0,27	627

\*Median.

Source: TSKB Economic Research

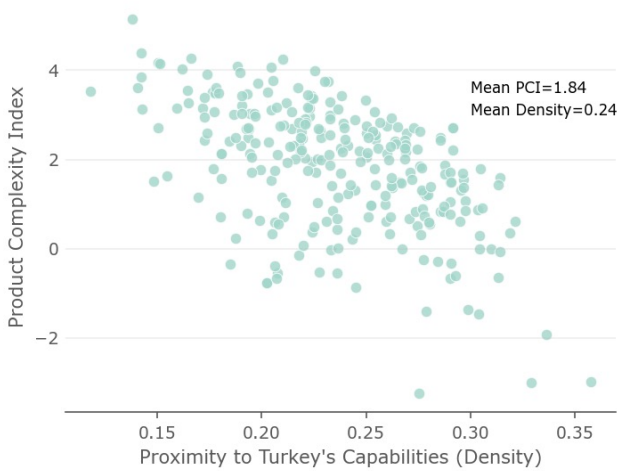
As Türkiye seeks to transform its production capacity, the question turns to which new (non-competitive) products should it target. This is an important question that requires a data-driven answer. Figures 7 and 8 compare, for Türkiye, the new products—environmental goods and other goods—across two indicators: the density (proximity of the product to Türkiye’s existing capabilities) and the PCI.

The analysis indicates that the average product complexity index of new environmental goods (where Türkiye could gain a comparative advantage) is higher than that of new goods in the other category. This suggests that moving toward environmental goods could shift Türkiye’s production and export structure toward more complex (i.e., higher-value-added) activities.

However, it is also important to assess the extent that Türkiye’s current capability set aligns with the capabilities required for those products. The answer is provided by the density indicator displayed on the horizontal axis of Figures 7 and 8. The required capability set for producing environmental goods appears to be at a similar proximity to Türkiye’s existing capabilities as the set required for other goods.

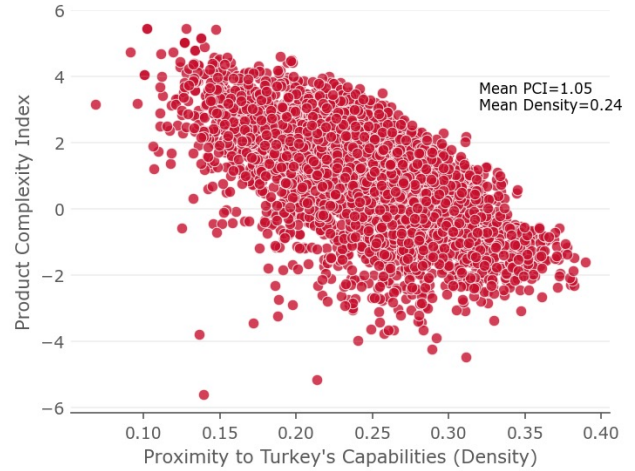
Consequently, expanding production in environmental goods that are compatible with existing capabilities but have higher complexity would both raise the country’s overall economic complexity and lead to a more complex goods-intensive export basket. In addition, a shift toward environmental goods would contribute significantly to an ecosystem-friendly transformation.

**Figure 7: Product Complexity Index and Density: Non-Competitive Environmental Goods**



Source: CEPII-BACI, TSKB Economic Research

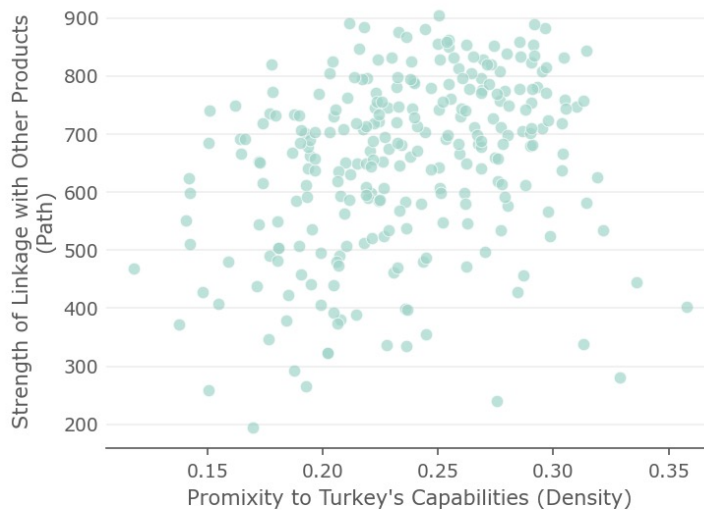
**Figure 8: Product Complexity Index and Density: Non-Competitive Other Goods**



Source: CEPII-BACI, TSKB Economic Research

Furthermore, the benefit of gaining a comparative advantage in a product is linked to that product's linkage strength with other products. A product that is highly linked to many other products can serve as a gateway for the productive capabilities generated in that product to be leveraged for gaining competitiveness in additional products. In this vein, Figure 9 illustrates the proximity each environmental product to Türkiye's capability set (density) and its total strength of linkage with all other products. The fact that products which are close to Türkiye's existing capabilities exhibit such a strong linkage strength with many other products represents a strategic advantage in terms of potential gains.

**Figure 9: Proximity to Capabilities and Strength of Linkage: Non-Competitive Environmental Goods**



Source: CEPII-BACI, TSKB Economic Research



To summarize the findings based on the average values of the key complexity metrics:

- Environmental goods have a higher complexity than other products,
- Among new products, environmental goods again exhibit higher complexity than other goods,
- Among new products, the required capability set for environmental goods is similar to that needed for other goods, and
- The strength of the link between new environmental goods and other products is high, indicating significant potential for additional gains.

These findings imply that concentrating on environmental goods would help steer Türkiye's production pattern toward more complex, capability-rich goods, thereby enhancing economic complexity while also supporting environmentally sustainable development.

### **Are these products attractive and feasible for Türkiye ?**

We answer this question using the two additional indicators derived from the metrics in the Complexity Atlas methodology: the product's attractiveness and its feasibility (Shah, 2024).

In this framework, feasibility indicates how reachable a product is given a country's existing productive capabilities. The higher the feasibility indicator, the more possible it is to manufacture that product. Attractiveness, on the other hand, is based on the product's complexity outlook gain (COG). In other words,

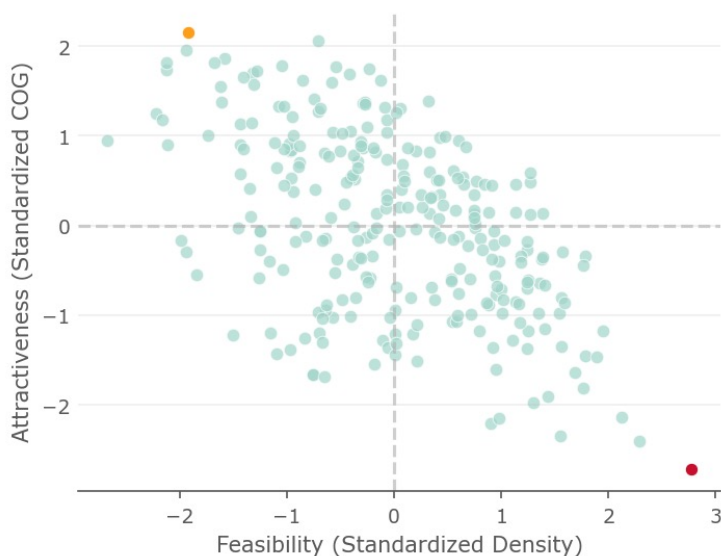
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<sup>6</sup> Standardization was performed using only the country's non-competitive environmental goods.

the product's attractiveness increases in line with the complexity outlook index achieved by producing the product with competitive strength. In other words, the greater the increase in the weighted average complexity of products that a country cannot currently produce competitively, the more attractive the new product becomes. Feasibility is the standardized form of the density indicator, while attractiveness is obtained by standardizing the complexity outlook gain<sup>6</sup>.

Thus, products that grant access to higher-complexity goods are more attractive, and evaluating their feasibility simultaneously offers a valuable perspective.

**Figure 10. Attractiveness and Feasibility:  
Non-Competitive Environmental Goods**



Source: CEPII-BACI, TSKB Ekonomik Arařtırmalar

Figure 10 plots 268 non-competitive environmental goods on the feasibility-attractiveness axes. The orange point in the upper-left quadrant represents a product with high attractiveness but low feasibility: HS 902720, “Environmentally preferable products based on end use or disposal characteristics”. The red point in the lower-right quadrant denotes a product with very high feasibility but very low attractiveness: HS 630510, “Environmental monitoring, analysis and assessment equipment”. The points in the upper-right quadrant are both attractive and feasible. Examples include HS 848180, “Sanitary fixtures, sensor-equipped,”<sup>7</sup> and HS 860110, “Railway locomotives powered by an external electricity source.”

49% of the products included in Figure 10 have feasibility scores indicating that they are relatively close to Türkiye’s current capability set. However, the production of these products has not yet taken on a scale that would confer competitive advantage.

The mismatch—where alignment with the existing capability pool does not translate into larger production volumes—may stem from a lack of investment and financing in this area. Therefore, it is vital that Multilateral Development Banks finance investment in the products which are:

- aligned with Türkiye’s current capability set,
- able to shift the country’s production pattern toward higher-complexity goods, and
- capable of building the skill base for new products through specialization.

<sup>7</sup> HS 902720: Chromatographs and electrophoresis devices; HS 630510: Jute or other textile-fiber bags and sacks used for packaging goods.

Such an approach could both increase the availability of the inputs needed for the ongoing global green transition and support the transformation of Türkiye's production structure.

On the other hand, 85 of the 268 non-competitive products appear in the upper-left quadrant. Although these products appear to be less compatible with the current capability set, they are highly complex and attractive. Increased production of these items could potentially contribute to the medium- and long-term transformation. The required prioritization to achieve such a transformation is reflected in the Ministry of Industry and Technology's incentive policy. Indeed, 54 of the 85 products in this quadrant are listed among the Ministry's priority products<sup>8</sup>. In addition to the incentive system's support in transforming the production pattern, simultaneously taking such steps as activating financing options for these products, implementing the necessary regulatory adjustments to ensure compatibility with the existing capability set and carrying out strategic planning could also bring about the desired results.

## Conclusion

Delving into the supply side of environmental goods, which are a key input for an ecosystem-friendly transformation, is valuable for understanding their ability to trigger structural change. Environmental goods have a much wider role in the green transformation than being environmental - they may also enhance Türkiye's export performance and production capacity to a meaningful extent.

Our calculations, based on the OECD's new scope of environmental goods, demonstrate that Türkiye's environmental goods:

- have experienced faster export growth,
- capture a larger share of EU imports, and
- have seen unit prices rise more rapidly.

Therefore, producing more environmental goods helps meet domestic market needs while also generating substantial export revenues.

Indeed, using the Economic Complexity Atlas methodology, our calculations reveal that environmental goods, when compared with other goods, are:

- more complex,
- more strongly connected to new products, and
- offer close similarity to the existing set of capabilities.

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<sup>8</sup> Of the total 268 non-competitive environmental goods, 113 appear on the priority product list.

Two points stand out when it comes to accelerating the transformation. The first concerns the measures under the New Industrial Policies. Many environmental goods appear on the Ministry of Industry and Technology's priority-product list. The second point is the important role that Multilateral Development Banks can play in financing the transformation.

We should keep in mind that gaining a competitive advantage in environmental goods will contribute in three fundamental areas:

- Türkiye's export growth,
- accumulation of capabilities for Türkiye's structural transformation, and
- provision of industrial inputs for an ecosystem-friendly global transformation.

In addition, the increasing availability of environmental goods serves many Sustainable Development Goals and directly supports the following four objectives in particular:



# References:

- Abdon , A., Bacate, M., Felipe, J., & Kumar, U. (2010). Product Complexity and Economic Development. New York: Levy Economic Institute of Bard College.
- Aghion, P., Boneva, L., Breckenfelder, J., Laeven, L., Olovsson, C., Popov, A., & Rancoita, A., Financial Markets and Green Innovation, ECB Working Paper Series
- Avcıoğlu, C. (2021). Dönüşümün Anahtarı: Dijitalleşme ve Yeşil Teknolojiler, TSKB Ekonomik Araştırmalar, Tematik Bakış .
- Balassa, B. (1965). The Determinants of Intra-Industry Specialization in United States Trade. Oxford Economic Papers, 220-233.
- Hausmann, R., & Klinger, B. (2006). Structural Transformation and Patterns of Comparative Advantage in the Product Space. New York: Harvard University-John F. Kennedy School of Government.
- Hausmann, R., Hidalgo, C. A., Bustos, S., Coscia, M., Chung, S., Jimenez, J., . . . Yıldırım, M. A. (2014). The Atlas of Economic Complexity: Mapping paths to prosperity. Boston: MIT Press.
- Hausmann, R., Hwang, J., & Rodrik, D. (2007). What You Exports Matters. Massachusetts: National Bureau of Economic Research.
- Hidalgo, C., & Hausmann, R. (2009). The Building Blocks of Economic Complexity. Proceedings of the National Academy of Sciences, 10570–10575.
- Hidalgo, C., Klinger, B., Barabasi, A., & Hausmann, R. (2007). The Product Space Conditions the Development of Nations. Science, 482–487.
- Shah, T. (2024). Green Growth Opportunities for Hermosillo: Supplying the Global Energy Transition. Growth Lab Working Paper, John F. Kennedy School of Government, Harvard University.
- TSKB (2025). TSKB Ekonomik Araştırmalar, Ekosisteme Dair Perspektifinden: Sosyal Dönüşüm-Sosyal Sermaye.
- Tur, F., & Alkan, B. (2023). Rekabetin Rengi Yeşil: Yeni Yeşil Düzen ve Kompleksite Atlası. TSKB Ekonomik Araştırmalar.
- Tur ve Alkan (2023). Çevresel Ürün Ticareti: Yeşil Dönüşümü Destekleyecek Bir Türkiye Hikayesine Giriş, TSKB Ekonomik Araştırmalar, TSKB Kalkınma Perspektifi.
- Yıldırım, M. (2018). Kompleksite ve Ürün Uzayı Metodolojisiyle Türkiye. İstanbul: Koç Üniversitesi-TÜSİAD Economic Research Forum.
- OECD and Eurostat (1999). The Environmental Goods and Services Industry: Manual for Data Collection and Analysis, <https://doi.org/10.1787/9789264173651-en..>
- OECD (2025), "Non-Tariff Measures Affecting Environmental Goods Trade", OECD Trade Policy Papers, No. 294, OECD Publishing, Paris.



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