



[Didem Özel Tümer](mailto:Didem.Özel.Tumer@milliyet.com.tr) tumer@milliyet.com.tr

Did you measure your factory/plant's carbon footprint?

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The first thing the Grand National Assembly of Turkey did as soon as it opened was to give the approval to the Paris Climate Agreement, which was accepted in 2016. Thus, we can say that Turkey's journey towards zero carbon has officially begun. It will be a process in which we will observe how the adaptation of the sectors and companies to the 'green transition' will progress in line with Turkey's commitments. Because the intended transformation will not take place by just saying "I love and protect our nature". We are talking about a transformation in which planting trees will not be enough and companies will face sanctions if they do not reduce their carbon emission in a given period of time.

In Turkey, there are few companies that have already started to adapt the EU Green Deal beforehand. Dorce Prefabricated Building & Construction, which has also been involved in many international projects abroad, is the first company in its sector to receive the "ISO 14064 – Greenhouse Gas Verification Statement". In a meeting I attended, I saw Süheyla Çebi Karahan, The Chairwoman of Dorce and also the Vice-President of the Turkish Contractors Association, accepting congratulations for the certificate DORCE production facility received, and warning her colleagues that they would have difficulty in doing business abroad and they would pay burdensome costs in the near future if they do not act swiftly. After the approval of the Parliament, I asked Karahan, about the journey of her own manufacturing plant as well as the obligations and challenges:

"We work internationally. Global companies such as BP, Shell, Exxon Mobil have already added carbon footprint declaration certificate to their specifications. Such companies request it for both supply and subcontracting contracts. This fact has two pillars. First, companies with high carbon gas emissions are global companies. They already emit huge amount of carbon emission while extracting oil, and they cannot reduce it. As a solution, they propose 'I work with a lot of suppliers and subcontractors, they can reduce on behalf of me since we work together.' The second is that it will be an obligation within three years. "Even if not requested in specifications of international companies, The EU will soon implement burdensome tax regime while sending goods if you don't have a Carbon Footprint Declaration Certificate. You won't be able to send goods anyway."

Karahan got down to work by creating an "Agile Team" in her own company:

"We have created a team consisting of young colleagues at the company and entrusted them with this task, saying 'get this work done'. We received our certificate in 10 or 11 months. It is not a very long journey. If you follow up the process closely, you will receive it in 10 to 12 months. There are internationally accredited companies for that. "You cannot calculate your carbon emissions without getting their services. The calculations related to the carbon emissions are made together with those companies."

Noting that there are 8 or 9 international accreditation companies in Turkey that can guide companies for obtaining such certificates, Karahan stated; They have determined that her production facility emits 1,153 tons of CO₂. Karahan stated that if the zero carbon emission goal has not been achieved within three years, they will pay tax in proportion to remaining part:

"1,153 tons of carbon emission are generated from the diesel fuel used by our generators, cranes and forklifts in the production plant. If we convert them into the electrical system or hydrogen fuel, environmentally friendly fuels in other words, zero carbon emission goal will be achieved. Nevertheless it does not end here. Next phase is the carbon emission calculations of the raw materials you buy, the shipping of the products you manufacture, logistics and stakeholders who serve you. We will have to calculate the carbon emission we emit with the companies that provide needed services. Our plans are already ready. We will start in 2022. The system forces you to examine all your suppliers, find out their carbon emission amount, then work with those close to zero. The system asked to make all the equipment we use environmentally friendly such as generators and cranes that we use in our 40 years old factory. Substantial funding is needed."

Karahan said that the number of companies that are aware of this compulsory and costly transformation is not very high, and that the number of companies that have the certificate is not more than 300. In order to raise the awareness, Karahan noted that the Ministry of Commerce has started to work actively as the coordinating ministry with the Ministry of Industry and Technology and the Ministry of Environment and Urbanization. The steel industry is the most adapted one. They also make up the majority of those who receive the certificate. Karahan also underlined that green transition cannot be left to the next generation.



Süheyla Çebi Karahan

What has been done while reducing the carbon footprint?

Agile team organized in-house information and training organizations. They carried out activities such as emission reduction project development.

It was determined that the "welded manufacturing" is the biggest contributor to carbon emissions. Majority of it has been redesigned as bolted connections, which resulted in reduction of the amount of carbon emissions.

Forklift and similar vehicle traffic has been minimized.

The roofs of indoor manufacturing facilities were replaced with transparent panels. Thus, we made better use of the sun, which is the progress of the transition to renewable energy.

Latest technology machines, equipment and software with high energy efficiency started to be used, instead of obsolete technologies.

Afforestation and small-scale agricultural projects were carried out in many areas in the 100,000 square meter manufacturing area.

Awareness was raised among employees for the reuse of waste water, recycling, recovery and disposal of wastes.