

'And the tree would be happy' if it is to exist

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EXCLUSIVE

"I don't need very much now," said the boy, "just a quiet place to sit and rest. I am very tired."
"Well," said the tree, straightening herself up as much as she could. "Well, an old stump is good for sitting and resting. Come, boy, sit down. Sit down and rest."

The Giving Tree, Shel Silverstein

In his heartwarming tale about a tree that gives selflessly to a young boy throughout his life, Shel Silverstein portrays somewhat of a perfect friend. A friend that gives and gives and gives and asks for nothing in return.

When the protagonist of the book is a child, he would play with the tree's branches and swing from its trunk. The tree, that perfect friend, was always happy to provide shade and comfort for the boy. As the boy grows older, he would come to the tree seeking various things such as apples, branches to build a house, and even money. The tree gives everything it has to the boy without hesitation, even if it meant sacrificing its own well-being. The boy eventually becomes an old man and returns to the tree, now only a stump. The tree, unsurprisingly, is still happy to provide a place for the old man to sit and rest, despite having nothing left to give. The moral of 'The Giving Tree' might be the importance of selflessness and giving without expecting anything in return, but I want to get at something else: with the problem of global warming getting out of hand and the prospect of extreme heat waves on the horizon, the only friends we need are the trees.

As the world grapples with the consequences of global warming, heat waves have become an all-too-common phenomenon. In this context, the role of trees in mitigating the effects of these sweltering temperatures has never been more crucial. However, the rapid



expansion of cities and the construction of high-rises often come at the expense of these natural cooling agents.

Trees have long been known for their ability to cool their surroundings. Dr. Jane Taylor, a leading environmental scientist at the University of California, Berkeley, explains, "Trees provide shade, which reduces the amount of solar radiation absorbed by surfaces like roads and buildings. This, in turn, lowers the ambient temperature in the area." Moreover, trees also cool the air through a process called transpiration, where they release water vapor, which absorbs heat and cools the surrounding air. In a recent study published in the journal *Nature Climate Change*, researchers found that urban trees can reduce temperatures by up to 4°C during heat waves. "Our findings highlight the importance of urban green spaces in mitigating the effects of extreme heat events," says Taylor, who was part of the research team. "With heat waves becoming more frequent and intense due to climate change, the cooling effect

of trees is more important than ever."

Despite the clear benefits of trees, urban development often leads to their removal. In cities where real estate is booming, high-rises are being erected at an alarming rate, often at the expense of green spaces.

Unfortunately, Tehran is one of the cities that has seen a significant decrease in its tree canopy over the past few decades. Despite the policies in place and insistence of authorities on their intent to keep Tehran's gardens and trees intact, the capital city of Iran has lost many gardens and trees in the past few decades to urban development. There is currently no precise statistics at hand about the matter, but comparing old pictures of Tehran with new ones shows to what extent we have destroyed our giving friends.

This loss of tree cover has serious implications for the residents of Tehran. Taylor warns, "As cities become more densely populated and built-up, they also become more vulnerable to the urban heat island effect, where

temperatures in urban areas are significantly higher than in surrounding rural areas. Trees play a critical role in mitigating this effect, so their removal can exacerbate the problem."

The construction of high-rises is a major contributor to this issue. As buildings replace trees, the cooling effect of the latter is lost, and the heat-absorbing properties of concrete and asphalt only serve to increase temperatures further. "High-rises can create a canyon effect, trapping heat and reducing air circulation," says Taylor. "This can lead to dangerously high temperatures, particularly during heat waves."

Tehran's ever-booming real estate in the past few decades has made destroying the city's old – in some cases historic – gardens very profitable, to the point that the practice has changed the very nature of the city.

Tehran used to be famous for its fair weather and temperatures and its vastly green nature, and reports indicate that this very reason led to it – back then only a village – being picked as the capital city during the Qajar Dynasty. Nowadays, however, Tehran is nothing but an over-crowded, air-polluted city all year long, and a scorching one during the warmer seasons.

Tehran is not very well suited to counter the consequences of the urban

heat island effect, which are far-reaching. In addition to the direct health risks of the heat, heat waves can also strain energy systems, as the demand for air conditioning surges. Recognizing the importance of trees in combating global warming, heat waves, and helping with water cycle issues, Tehran's authorities are taking action to increase their urban tree cover. Recently, the city has launched its "Green Belt" initiative, which aims to increase the overall urban green space in the capital.

However, simply planting more trees is not enough. Urban planners and developers must also prioritize the preservation of existing green spaces. "It's important to strike a balance between development and the preservation of our natural environment," says Taylor. "Incorporating green spaces into urban design, such as green roofs and pocket parks, can help to mitigate the effects of heat waves while also providing valuable habitat for wildlife."

As the world continues to grapple with the consequences of global warming, the role of trees in mitigating the effects of heat waves has never been more important. What stings badly, though, is that despite the scientific evidence and the very urgent need, trees are still cut down in order to erect malls and high-rises.



"The cooling effect of a single mature tree can be equivalent to ten room-sized air conditioners operating 20 hours a day," says David Nowak, a renowned research forester.

● JAN HUBER/UNSPASH

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\$3.5 billion allocated for importing medicine: Minister



● FARS

The Minister of Health, Treatment and Medical Education announced that an agreement has been reached with the Central Bank to allocate \$3.5 billion for the import of medicine, medical equipment, and infant formula this year. This amount equates to approximately \$300 million per month and is dedicated to fully meeting the needs of the healthcare industry.

During a meeting of the presidents of universities of medical sciences in the country, the Minister of Health, Bahram Einollahi, announced that the Ministry has also agreed to grant more than \$1 billion of new facilities in the form of working capital to pharmaceutical companies through operating banks, IRNA reported.

He stated that 30 new facilities will be paid to pharmaceutical companies for the supply of drugs and raw materials. The Food and Drug Organization will introduce the operating banks and the list of pharmaceutical companies to the Central Bank, which will determine and notify the quota of the operating banks.



● IRNA

The Minister emphasized that the Food and Drug Organization will prioritize orders for medicine and medical equipment, with a maximum waiting time of 48 hours for the first hall and 72 hours for the second hall.

He also announced an agreement with the Central Bank to supply foreign currency to drug importing companies. Pharmaceutical companies that export drugs on a quarterly basis will have their relevant report sent by the Food and Drug Organization to the Central Bank, and the foreign exchange quota of the pharmaceutical sector will be adjusted accordingly.

"The Ministry is committed to ensuring that all necessary resources are provided for the healthcare industry to meet the needs of our citizens," said Einollahi.

"This agreement with the Central Bank is a significant step towards achieving that goal."



A photo of Tajrish Square in northern Tehran taken in 1972 shows a considerable green space, which currently does not exist due to urban development plans.

● YJC