Headline: Preparing resilient cities

Byline: Poul Due Jensen

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Climate change is a global issue that is seeing no signs of backing down, with cities inevitably on the front lines of climate change's growing risks and challenges. Recognizing this, this year's World Cities Day (on Oct. 31) reflects on the theme of "Adapting Cities for Climate Resilience."

Here in the Philippines, the urbanization rate has gone up to over 51 percent. However, resilience in the country's cities vis-à-vis climate change still has a lot of catching up to do. Recent reports note that the Philippines can expect more intense typhoons, higher sea levels, and greater storm surges.

Our cities need to continue adapting to prepare for existing and future climate impacts. For the Philippines, there are three core areas that call for focused action — urban water management, sustainable cooling, and ensuring water-smart homes.

An interconnected water system. Water as a resource faces tremendous pressure from climate change, amid ever-growing demand. Thousands of households in Metro Manila have been reeling from intermittent to no water supply. Technology can actually play a bigger role in this. Through the Internet of Things, advanced real-time data collection, and sensors, a city's water networks can access information to operate in a more predictive manner, spotting trends and making predictions, ranging from weather alerts to adapting water pressure based on reported water usage data.

Water networks that have achieved this level of interconnectivity may also help transition a city toward a circular economy and promote greater water reuse, both from the municipal and industrial levels. The wealth of information available means a city can continuously improve the efficiency of available infrastructure toward collecting, managing, and treating wastewater for further use.

Cooling our cities sustainably. Cooling is a crucial part of cities in this part of the world where it's hot and humid all year round. Contributing to this condition is the Philippines' record of greenhouse gas emissions, which currently rank in the top 25 percent among low- and middle-income countries, and is expected to increase significantly in the coming decades.

However, keeping cities in the Philippines cool, most notably its buildings, is notoriously energy- and water-intensive, contributing to carbon emissions and driving climate change. We need to reduce the impact of our built environment while still ensuring overall livability and comfort. By leveraging automation, remote monitoring, and the Internet of Things, cooling systems can operate in optimized conditions at any time, by intuitively regulating the interactions between the various parts within the system. This setup minimizes energy use, and in turn helps reduce overall environmental impact.

Water-smart homes. As more people live in cities, climate action can exist even at the household level. Smart home solutions today mean anyone can enjoy a sustainable home that is both energy- and water-efficient without sacrificing convenience or comfort. Home water systems can be controlled right from smartphones, ensuring water on demand and even real-time monitoring, which can help inculcate a culture of water conservation.

Increasing the digital link between individual homes and the surrounding smart urban network presents the potential for a city to better monitor and meet citizen needs, while allowing citizens to

better access city services from their homes. Additionally, when citizens are empowered to reduce their own consumption, municipalities are better able to focus on improving and upgrading water management without the pressure of rising demand.

Driving change beyond the city. However, to truly reinvent our cities, collaboration is key. For instance, the C40 Cities Climate Leadership Group, of which Quezon City has been a member since 2019, advocates that cities collaborate effectively, share knowledge, and drive meaningful action on climate change. The C40 project on Water Secure Cities for the future is already delivering remarkable results that will pave the way for mayors to deal with their climate-related water risks in the future.

We also need to reflect on how nature can play a supporting role. The restoration of our existing natural resources such as lakes and rivers can help improve a city's water quality and access, as well as play a crucial role in flood management and mitigating coastal erosion.

In order to truly emerge stronger, we need to continue our focus on climate action. With numerous humanitarian crises continuing to compete for our attention, it can seem like our urban resources are limited. But by strategically identifying the most effective and feasible actions, cities have the power to enact real change for their communities, and in turn stand strong in the face of our climate reality.

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Poul Due Jensen is the chief executive officer of Grundfos, a global leader in advanced pump solutions and a trendsetter in water technology.