

Garden for your lives!

On Earth Day, as we brace for a hot summer, it's time to plant new strategies for cooling our cities, says former environmental commissioner EVA LIGETI

By EVA LIGETI

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Killer heat waves are beginning to threaten the values we all take for granted about life in the city.

Last winter I watched my front yard geraniums continue to bloom through until Christmas, right here in Toronto. Our winters today aren't what they used to be. I had to agree with my neighbours -- mild winters are so nice!

In fact, we've been experiencing record-breaking temperatures. In 2001, the whole planet experienced a heat wave, the second-warmest year on record. But we're beginning to learn that there are deadly consequences to balmy temperatures.

For many people, the fallout from global warming may seem too far away, too abstract to worry about: habitat changes, stronger el Ninos, the melting of Polar ice sheets and rising seas.

But for our urban populations, climate change is no longer abstract. It's here, and it can be lethal. Extreme heat -- the killer heat waves that come with global warming -- are challenging the fundamental values we share as city dwellers, threatening what we think of as our basic rights to a secure shelter, a safe community and a livable city.

In Toronto, we now have some 40 extra deaths a year because of extreme heat. Approximately 1,000 people also die prematurely every year in Toronto because of smog, which is especially harmful to seniors and people with cardiac and respiratory problems. And because summer-like temperatures promote smog, there's a direct correlation between the heating up of our cities and the number of people who die because of smog.

Air pollution is endangering unborn children, too -- smog has now been linked to low birth weight, premature births, stillbirths and infant deaths. Last year, Toronto recorded an all-time high of 20 smog alerts.

Ironically, Canada is a special case in the climate-change scenario. We Canadians have learned how to deal with cold weather, but not with extreme heat. Research reported in the American Journal of Epidemiology shows that more people die because of heat in

northern cities like Toronto and Chicago than in Miami.

Cities become "heat islands" when trees and natural surfaces are replaced with asphalt and buildings. Artificial surfaces are often dark, and tend to store and intensify the sun's energy. Cars and factories and air conditioning add more heat to the dome of elevated temperatures over the city, making it as much as 4 C to 7 C hotter than surrounding suburban and rural areas.

The U.S. government's National Centers for Environmental Prediction are forecasting El Niño conditions for 2002, which could result in a scorching summer.

Even if efforts over the next 10 years to curb our use of fossil fuels are successful, our climate will continue to change for decades because of the emissions we've already released.

Does that mean the situation is hopeless? I don't think so. Until now, we haven't had the systems in place to deal with extremely high temperatures. What cities need, we now realize, are adaptation strategies to deal with climate change. We can take action now.

Residents should pay attention to heat warnings. Last summer, Toronto put into action the first-ever Heat-Health Alert System. This system gives public health officials a 60-hour advance warning before dangerous temperatures reach the city -- allowing them to warn residents and put emergency response systems, such as cooling centers, at the ready.

Homeowners and building managers can reverse the effects of the city as a heat island -- changing the surfaces that store and intensify heat into surfaces that reflect light. We can do this by using lighter-coloured roofing materials, planting more trees and roof gardens, and increasing the urban forest cover.

Governments should be developing strategies that will help to protect cities from the potentially lethal impacts of summer heat. That's why Toronto has invited leading Canadian and U.S. scientists to an Urban Heat Island Summit, from May 1 to May 4, 2002, to share the latest results of their urban heat research.

Municipal leaders from cities like Chicago, which experienced significant loss of life to extreme heat in recent years, will be talking about innovative projects under way in their cities. Chicago, for example, now requires multiunit buildings to have roof gardens, and other cities, such as Philadelphia, are white-painting roofs in low-income neighbourhoods.

While governments are trying to develop long-term strategies, such as the Kyoto protocol, we city dwellers must prepare for adapting to the short-term impacts of increasing temperatures. By simple acts, such as planting and painting, we can make our cities more livable, protect the health of residents, and ensure that cities continue to be places where you and I want to live.

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