

ADAPTING TO EXTREME WEATHER: KEY AREAS OF FOCUS FOR THE INSURANCE SECTOR



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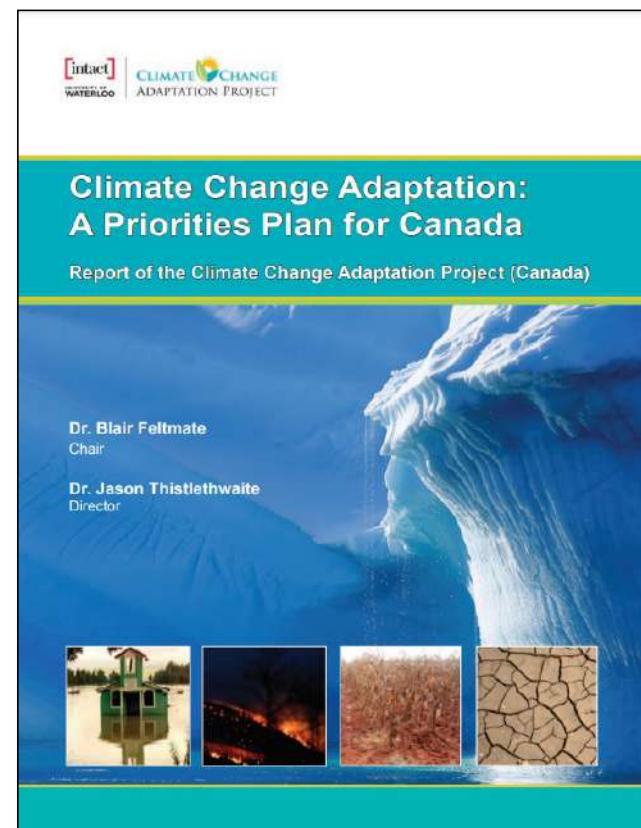
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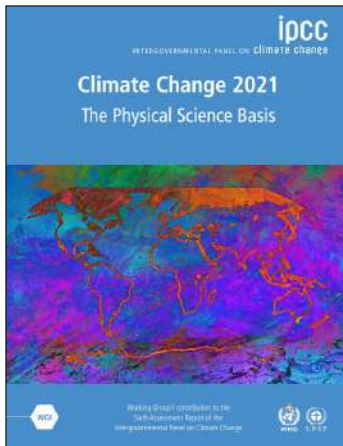
AGENDA

1. Climate change is real and irreversible
2. Costs of climate change are going up
3. Guidelines to limit flood risk
4. Immediate steps to limit flood risk



CLIMATE CHANGE IS IRREVERSIBLE: SEVERE WEATHER WILL GET MORE CHALLENGING

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It is indisputable that human activities are causing climate change, making extreme climate events, including heat waves, heavy rainfall, and droughts, more frequent and severe.

IPCC 2021



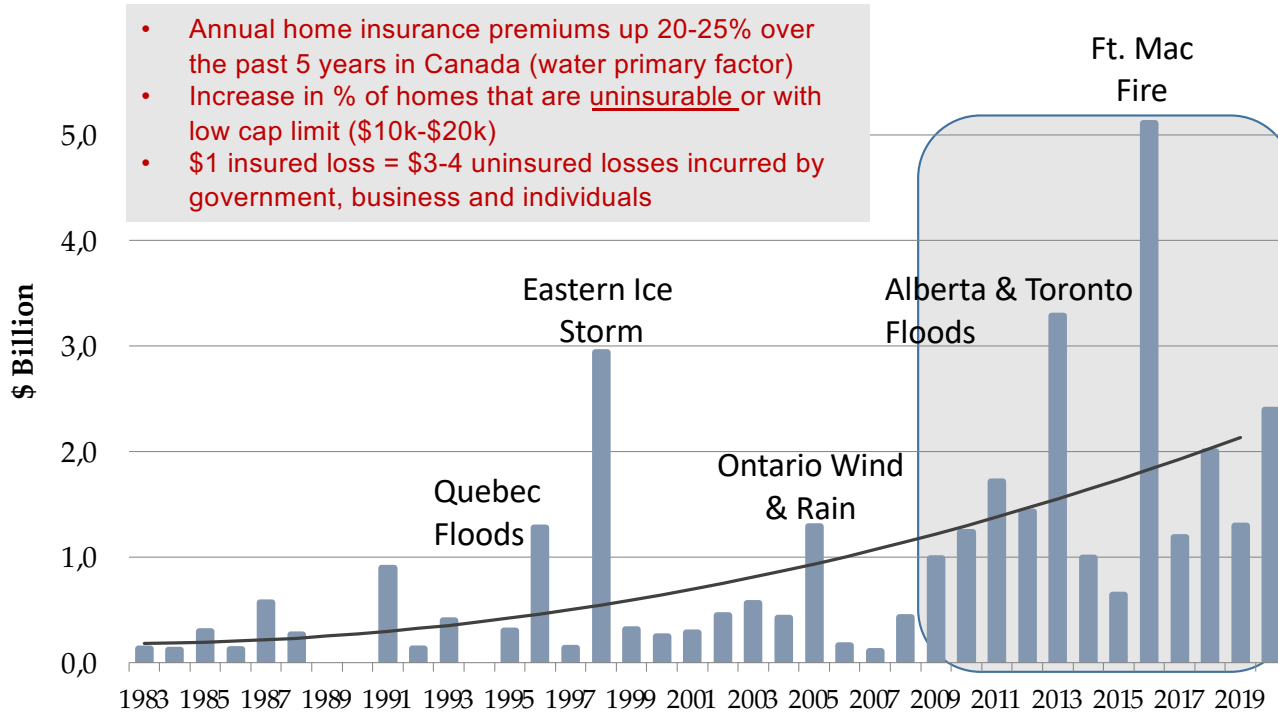
Canada's climate has warmed and will warm further in the future, driven by human influence... this warming is effectively irreversible.

ECCC/CCCR 2019

Key climate change drivers

- increasing global population (9,000 people/hr. net)
- climate change driving climate change through feedback loops

COSTS OF EXTREME WEATHER: CATASTROPHIC INSURABLE LOSSES (\$CAD)



Loss + Loss Adjustment Expenses

\$2020 - total natural-catastrophe losses normalized by inflation and per-capita wealth accumulation

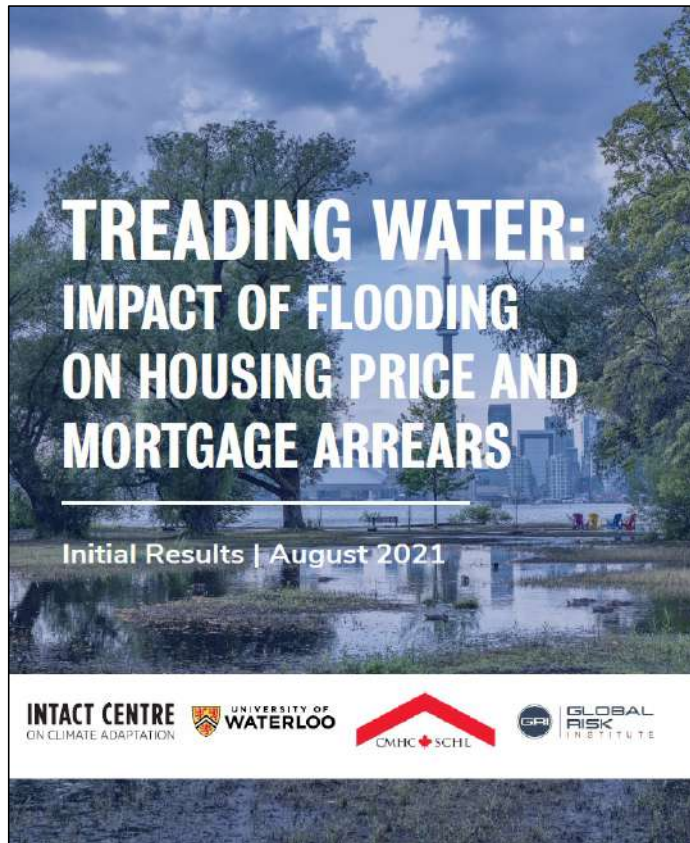
Excluding events when loss < \$25 M, 2008 onward

2020 January to November CAT events

Source: CatIQ, PCS, IBC Facts Book, Statistics Canada, IMF WEO Database

IMPACT OF FLOODING ON HOUSING PRICE

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Net results for homes located within *flooded* communities:

Average Sold Price

- 7.5% reduction in sold price

Average Days on Market

- 19.8% longer on the market

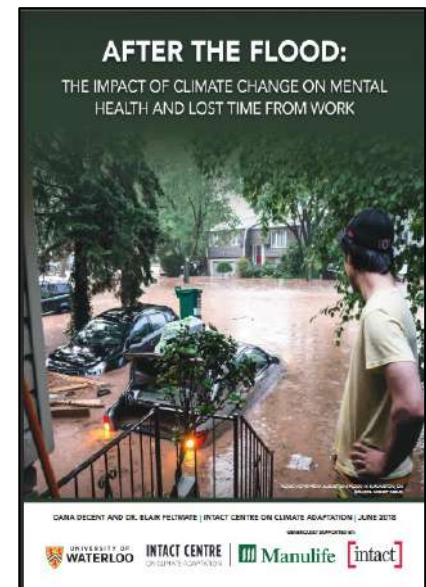
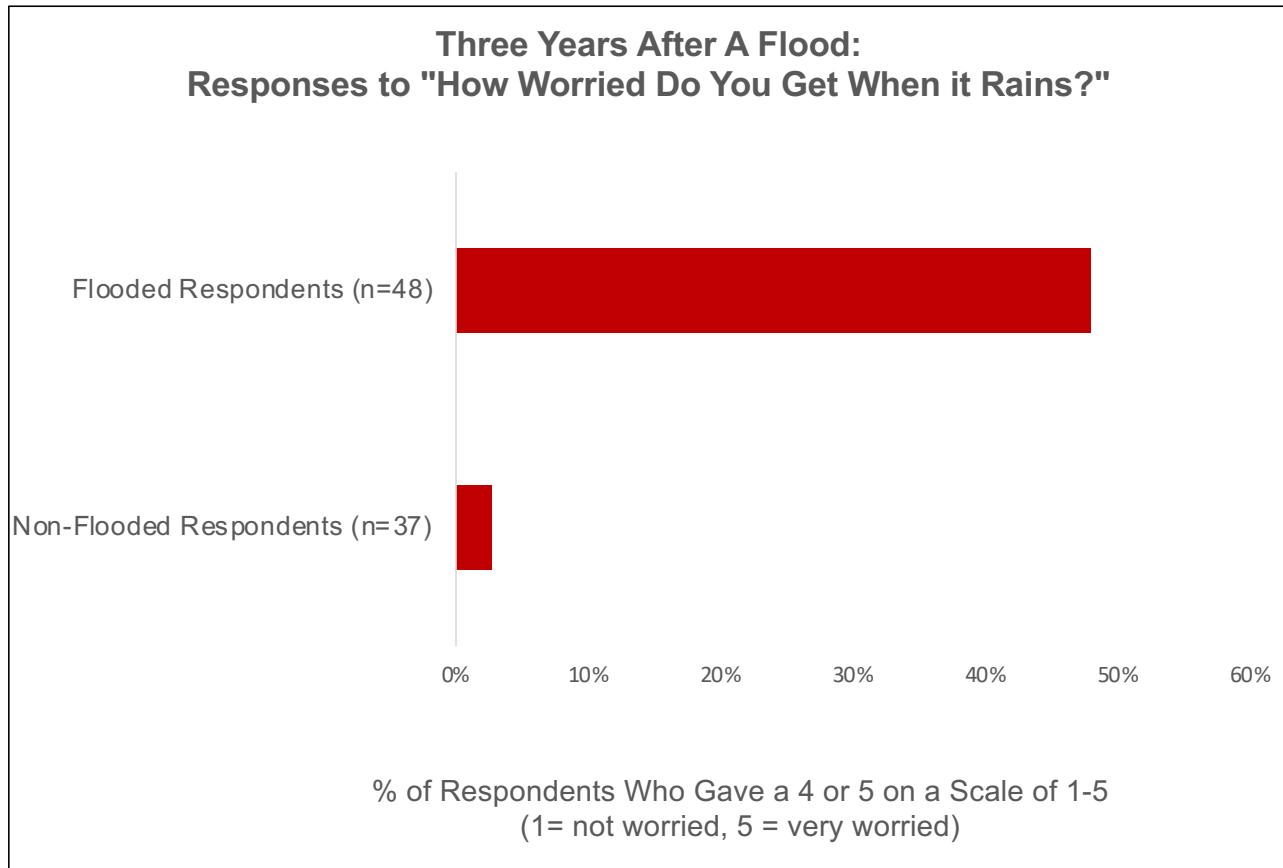
Average Number of Listings

- 38.0% decrease in listings

Average Mortgage Arrears/Deferrals

- No material impact
- <1 arrear per 1000 homes over 6 months

MENTAL HEALTH STRESS DUE TO BASEMENT FLOODING

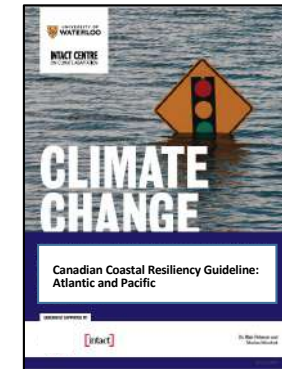


GUIDELINES TO LIMIT FLOOD RISK

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Home



Sea Level Rise



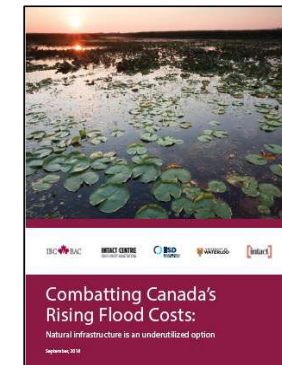
New Community



Existing Community



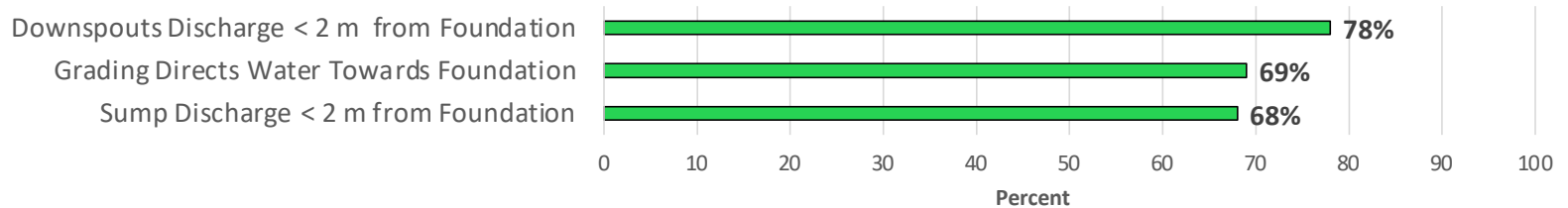
Commercial Real Estate



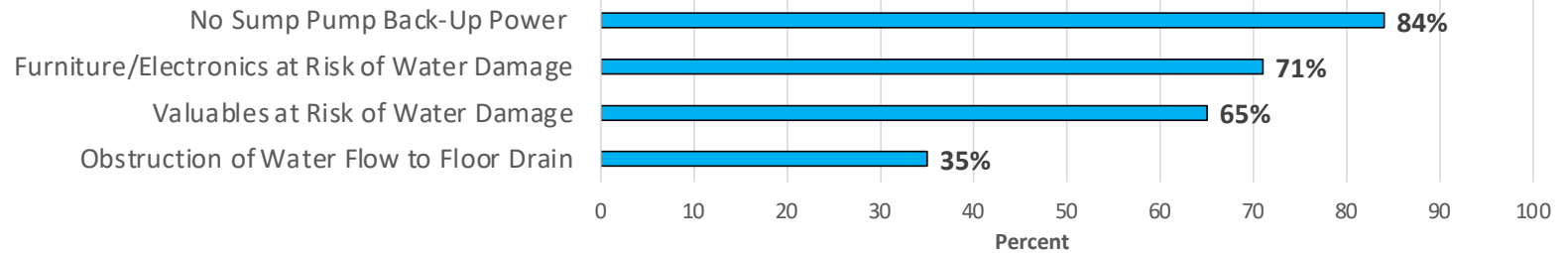
Natural Infrastructure

FACTORS THAT AFFECT BASEMENT FLOOD RISK

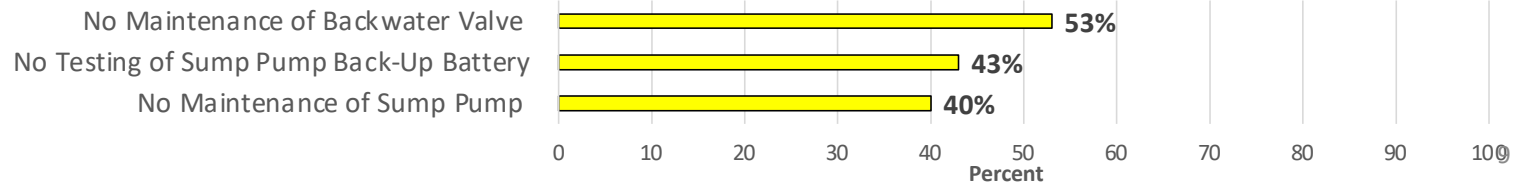
Top Flood Risks Recorded Outside the Home



Top Flood Risks Recorded Inside the Home



Top Self-Reported Maintenance Flood Risks Inside the Home



HOME FLOOD PROTECTION

Most homeowners can limit risk of basement flooding (Canada's No. 1 extreme weather cost):

- without special expertise
- generally for less < \$300
- over a long weekend

Step 1: Maintain What You've Got at Least Twice per Year

Do-It-Yourself for \$0

- Remove Debris from Nearest Storm Drain
- Clean Out Eaves Troughs
- Maintain Plumbing Fixtures and Appliances
- Test Your Sump Pump
- Clean Out Your Backwater Valve

Step 2: Complete Simple Upgrades

Do-It-Yourself for Under \$250

- Install Window Well Covers
- Extend Downspouts and Sump Discharge Pipes at Least 2m from Foundation
- Store Valuables and Hazardous Materials in Watertight Containers or Remove from Basement
- Remove Obstructions to Basement Floor Drain
- Install and Maintain Flood Alarms

Step 3: Complete More Complex Upgrades

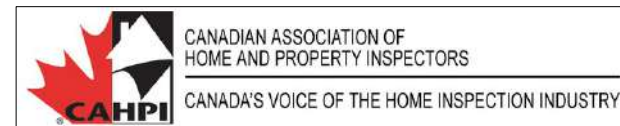
Work with a Contractor for Over \$250

- Install Window Wells that Sit 10-15 cm Above Ground and Upgrade to Water Resistant Windows
- Disconnect Downspouts, Cap Foundation Drains and Extend Downspouts to Direct Water at Least 2m from Foundation
- Correct Grading to Direct Water at Least 2m Away from Foundation
- Install Backwater Valve
- Install Backup Sump Pump and Batteries

HOME FLOOD PROTECTION PROFESSIONAL TRAINING PROGRAMS

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- 38,000 Insurance Brokers
- 4,500 Home Inspectors
- 12,000 Brokers/Lenders
- 28,000 Staff
- 130,00 Brokers/Agents (TBC)



MITIGATING MENTAL / PHYSICAL HEALTH IMPACTS DUE TO FLOODING AND FIRES

Canada will “create a Climate Adaptation Home Rating Program... as a companion to the EnerGuide home energy audits. We will also expand the eligibility requirements of the CMHC deep home retrofit program and Canada Greener Home Grants to include more climate resilient measures. We will partner with the insurance industry... by finding cost-effective ways to better protect communities and homes for climate impacts like floods and wildfires.”

Fighting Wildfires and Adapting to a Changing Climate

Everyday the evidence mounts that climate change is happening faster and with more intensity than many scientists expected.

The extreme heatwave and wildfires in Western Canada this summer underscore the urgency of fighting and adapting to climate change. This includes preparing for more regular extreme weather events that cause wildfires, droughts and flooding. We must remain united in our goal of ensuring affected Canadians are fully supported through this crisis. But as the mounting evidence of climate change becomes even more clear, we need to invest now to mitigate the impact of future disasters.

Training 1,000 Community-Based Firefighters

Through parts of this fire season, Canada faced a shortage of up to 1,000 fire personnel. With intensifying wildfire seasons across the globe, key allies face similar challenges, leading to shortages of fire fighting personnel and resources.

That is why a re-elected Liberal government will invest \$50 million to help train at least 1,000 firefighters in targeted wildfire risk management strategies in communities across the country. A portion of these funds will also be directed to support and expand Indigenous-led fire crews and build capacity to better incorporate Indigenous traditional knowledge strategies in fire management.

Providing firefighters with the equipment they need to stay safe and fight wildfires

As we adapt to the reality of climate change, we need to make sure provinces and territories can provide firefighters the tools they need to be able to do their job safely. That's why a re-elected Liberal government will invest \$450 million ahead of the next fire season to allow provinces and territories to invest in the equipment needed to fight wildfires and keep firefighters safe, like Canadian-made firefighter aircraft.

Protecting Homes and Communities from Floods and Wildfire

Information is power. And as climate change intensifies, it will only become more important for Canadians to understand what positive, affordable and practical measures they can take to protect their homes and communities against flood and wildfire.

To help ensure Canadians have this information, we will create a Climate Adaptation Home Rating Program that will be developed as a companion to the EnerGuide home energy audits. We will also expand the eligibility requirements of the CMHC deep home retrofit program and Canada Greener Home Grants to include more climate resilience measures.

We will also partner with the insurance industry and the private sector to develop strategies to reduce insurance premiums by finding cost-effective ways to better protect communities and homes from climate impacts, like floods and wildfires.

COMMUNITY FLOOD RISK PROTECTION

Multiple approaches to limit flood risk in new and existing communities:

Non-structural

- Avoid floodplain development

Natural Infrastructure

- Upstream catchment management
- Wetland preservation/restoration
- River restoration / diversion channels

Built Infrastructure

- Localised berms / flood walls
- Sewer separation projects
- Cisterns/storage tanks/ tunnels



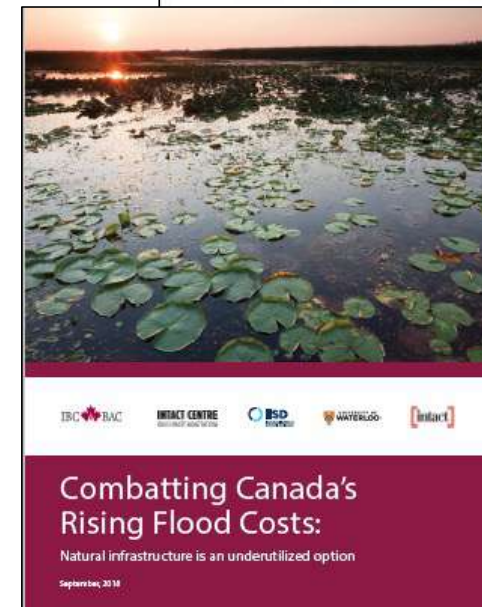
NATURAL INFRASTRUCTURE: FLOOD RISK MITIGATION

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Wetlands can reduce infrastructure costs from major storms by 29 – 38%

Natural Infrastructure flood risk protocol:

- retain what you have
- restore what you have lost
- build what you must



IMMEDIATE STEPS TO LIMIT FLOOD RISK

1. Distribute “**Three Steps to Home Flood Protection**” to all households
https://www.intactcentreclimateadaptation.ca/wp-content/uploads/2021/03/3-Steps-to-Home-Flood-Protection_March-2021_Space-for-Partner-Logo.pdf
2. Encourage MPs, MPPs, Councilors to include home flood protection guidance in Spring & Fall communiques to constituents
3. Insurers, real estate agents, mortgage brokers, home inspectors distribute home flood protection infographic to clients
4. Ensure flood risk maps are accessible, up-to-date, user-friendly
5. Federal, provincial and/or municipal governments establish flood risk score based on address/postal code (as exists in the US - <https://floodfactor.com/>).
6. Retain and restore natural infrastructure in urban and rural landscapes