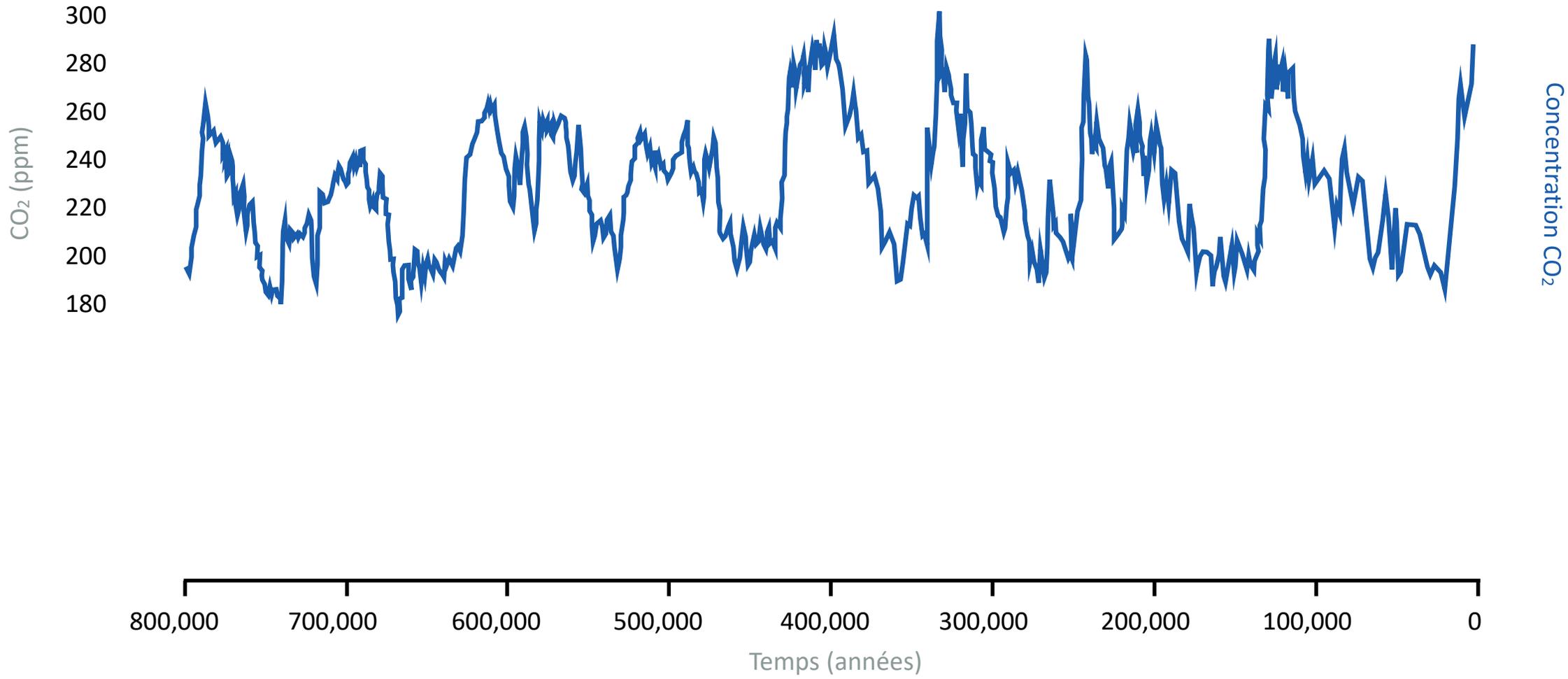


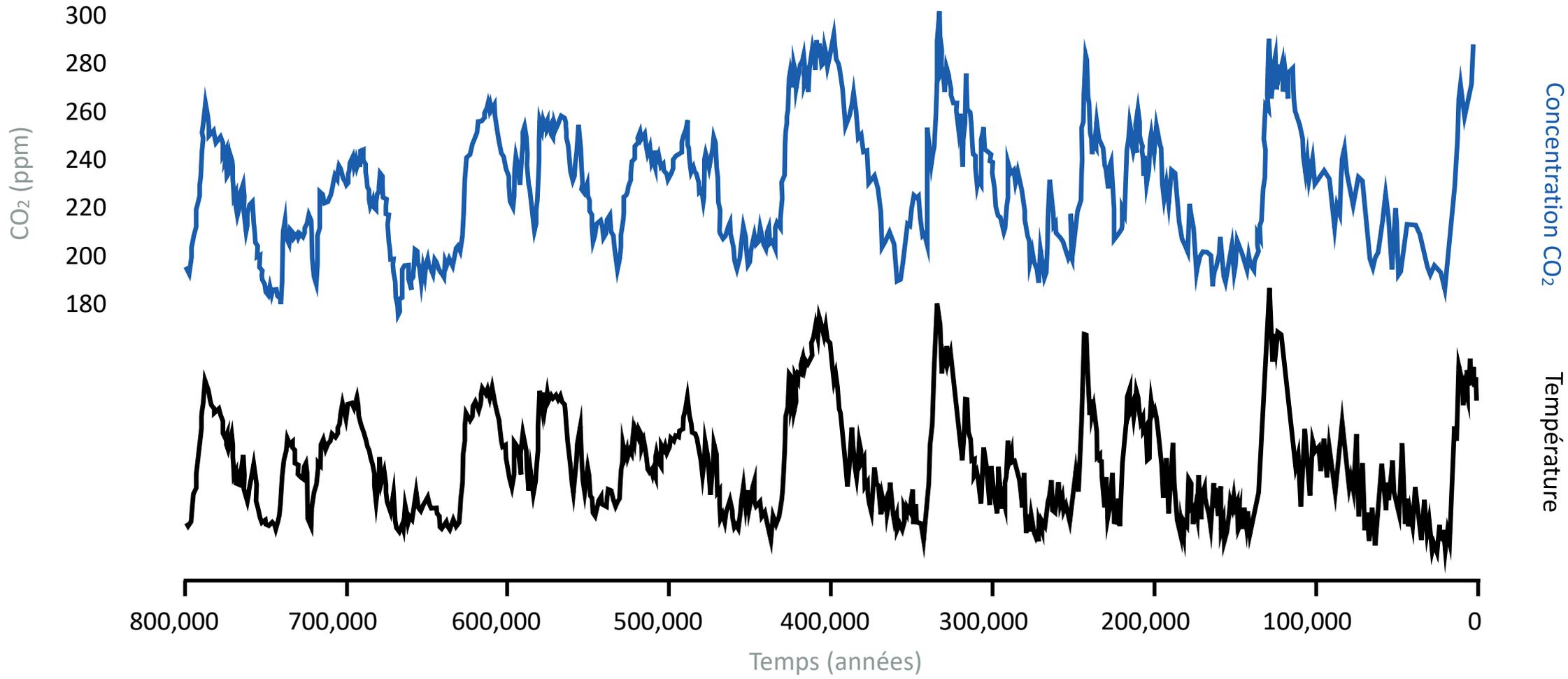
Perspectives du Québec sur la transition écologique

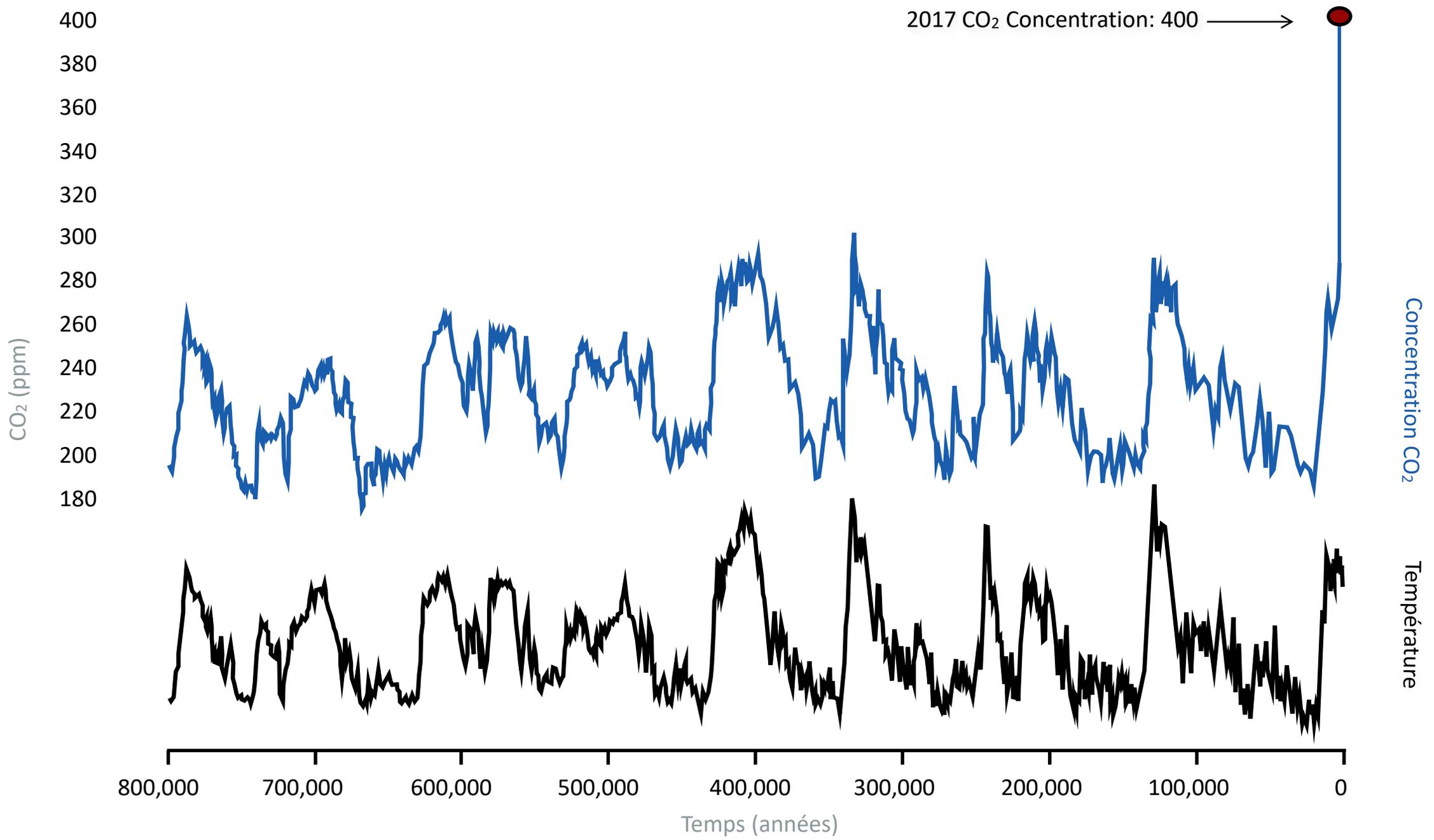




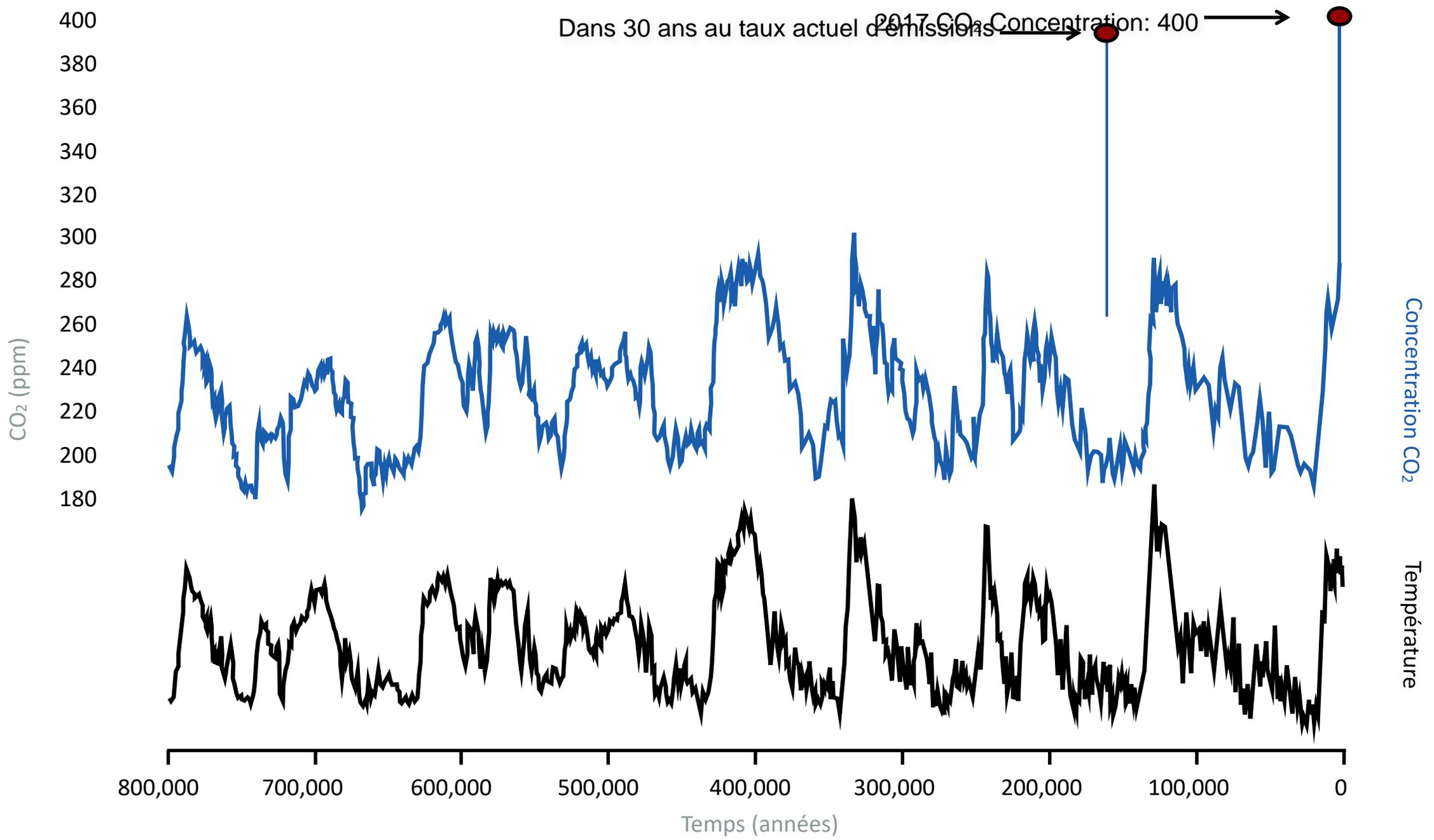


Source: National Climatic Data Center, NOAA





Source: National Climatic Data Center, NOAA

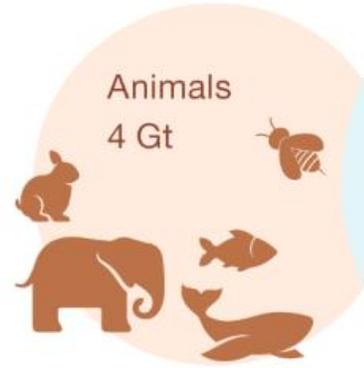


Source: National Climatic Data Center, NOAA



**The Global Assessment
Report on Biodiversity and
Ecosystem Services**

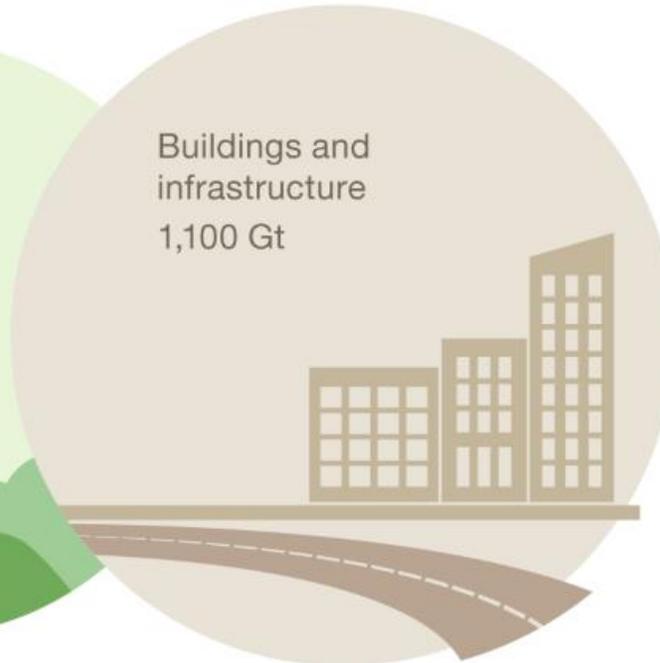
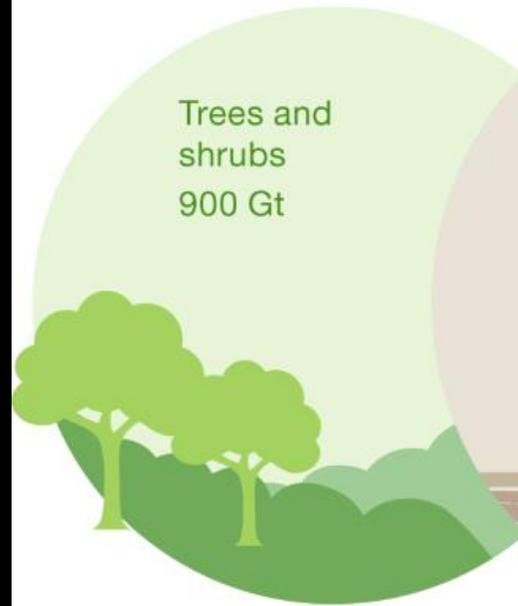




Living biomass



Human-made mass



5 impacts majeurs:
Utilisation des terres/mers,
exploitation, climat, espèces
invasives, pollution

Sociétés humaines



Bien-être humain



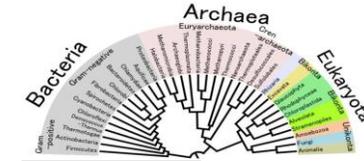
75% terrestres + 66% marins
écosystèmes "sévèrement altérés"



Jusqu'à 1 million d'espèces
menacées

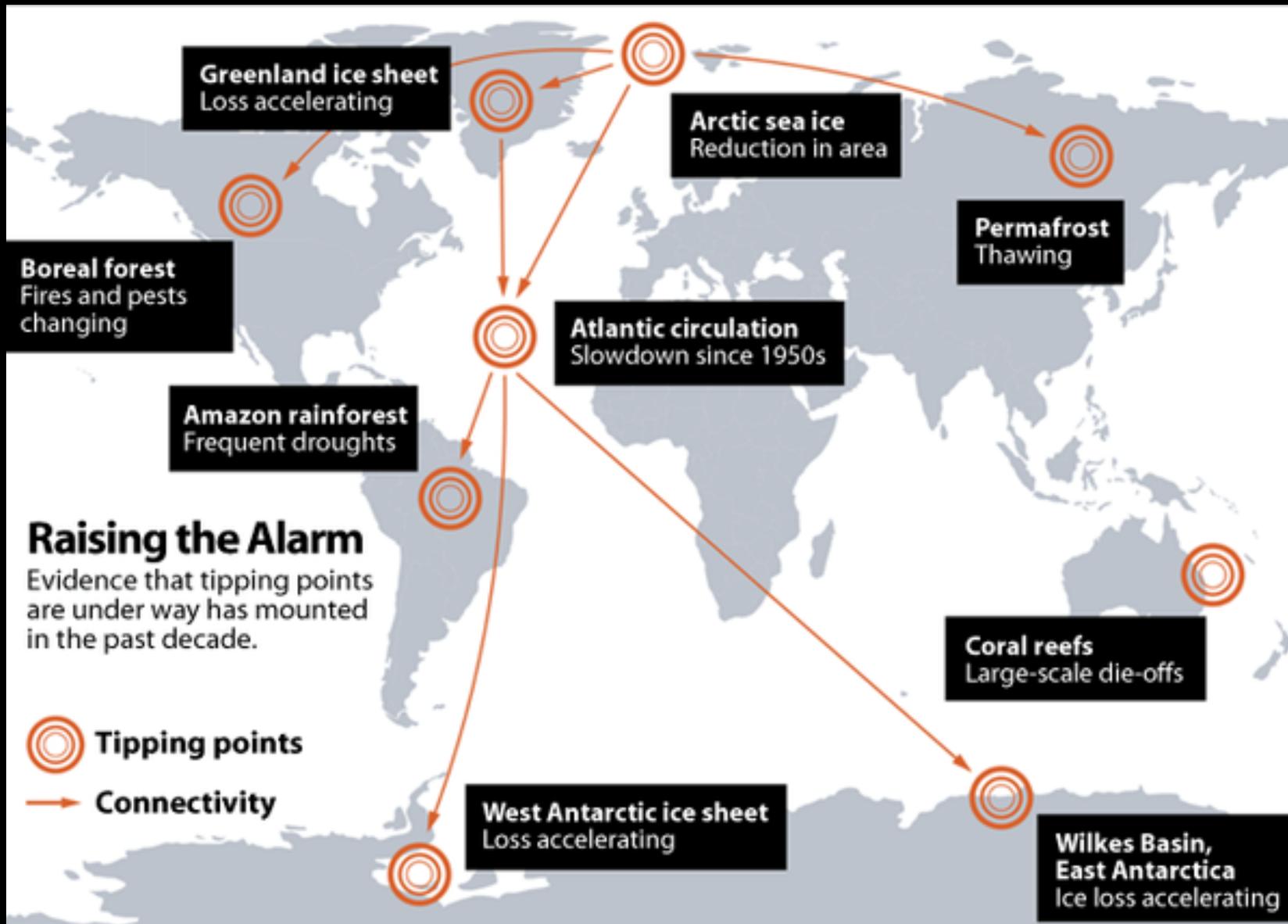
La tendance actuelle menace la
biodiversité et le bien-être humain

Biodiversité



Ecosystèmes





SOURCE: T.M. Lenton et al., 2019

InsideClimate News



REPORT

Global modeling of nature's contributions to people

Rebecca Chaplin-Kramer^{1,2,*}, Richard P. Sharp¹, Charlotte Weil¹, Elena M. Bennett³, Unai Pascual^{4,5,6}, Katie K. Arkema^{1,7}, Kate A. Brauman², Benjamin P. Bryant^{1,8}, Anne D. Guerry^{1,7}, Nick M. Haddad⁹, Maike Hamann^{2,10}, Perrine Hamel¹, Justin A. Johnson², Lisa Mandle¹, Henrique M. Pereira^{11,12,13}, Stephen Polasky¹⁴, Mary Ruckelshaus^{1,7}, M. Rebecca Shaw¹⁵, Jessica M. Silver^{1,7}, Adrian L. Vogl¹, Gretchen C. Daily^{1,16}

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- Hide authors and affiliations

Science 11 Oct 2019:
Vol. 366, Issue 6462, pp. 255-258
DOI: 10.1126/science.aaw3372

Au Forum économique de Davos en janvier 2020...

Pour une première fois dans l'histoire, les problèmes environnementaux représentent les cinq premiers risques qui menacent l'humanité et les systèmes économiques, soit :

- les phénomènes météorologiques extrêmes
- l'échec de l'action climatique
- les catastrophes naturelles
- la perte de biodiversité
- les catastrophes environnementales causées par l'être humain



- Acta Orthopaedica et Traumatologica Turcica
- Advances in Nursing Science
- Advances in Nutrition
- African Journal of Laboratory Medicine
- Afro-Egyptian Journal of Infectious and Endemic Diseases
- Age and Ageing
- Alcohol and Alcoholism
- Allergy
- Alpha Psychiatry
- American Journal of Clinical Pathology
- American Journal of Health-System Pharmacy
- American Journal of Hypertension
- American Society of Microbiology
- Animal Bioscience
- Annals of African Surgery
- Annals of Behavioral Medicine
- Annals of Oncology
- Annals of Global Health
- Annals of the Rheumatic Diseases
- Annals of the Royal College of Surgeons of England
- Archives of Disease in Childhood
- Archives of the Turkish Society of Cardiology
- Asia Pacific Journal of Public Health
- Balkan Medical Journal
- Belgian Journal of Medicine
- Biosis: Biological Systems
- BJOG
- BMJ Case Reports
- BMJ Evidence-Based Medicine
- BMJ Global Health
- BMJ Health & Care Informatics
- BMJ Innovations
- BMJ Leader
- BMJ Military Health
- BMJ Nutrition, Prevention & Health
- BMJ Open
- East African Medical Journal
- EBioMedicine
- EClinicalMedicine
- Emergency Medicine Journal
- EP Europace
- European Heart Journal
- European Heart Journal - Acute Cardiovascular Care
- European Heart Journal - Cardiovascular Imaging
- European Heart Journal - Case Reports
- European Heart Journal - Digital Health
- European Heart Journal - Quality of Care and Clinical Outcomes
- European Heart Journal – Cardiovascular Pharmacotherapy
- European Journal of Cardio-Thoracic Surgery
- European Journal of Cardiovascular Nursing
- European Journal of Hospital Pharmacy
- European Journal of Preventive Cardiology
- European Journal of Public Health
- Evidence-Based Mental Health
- Evidence-Based Nursing
- Family Medicine and Community Health
- Family Practice
- Finnish Medical Journal
- Frontline Gastroenterology
- Gaceta Sanitaria
- Gastrointestinal Nursing
- General Psychiatry
- Global Health Action
- Global Heart
- Global Journal of Medicine and Public Health
- Health Policy and Planning
- Health Promotion International
- Health Promotion Journal of Australia
- Heart
- Huisarts en wetenschap
- Human Molecular Genetics
- Human Reproduction
- BMJ Open Gastroenterology
- BMJ Open Ophthalmology
- BMJ Open Quality
- BMJ Open Respiratory Research
- BMJ Open Science
- BMJ Open Sport & Exercise Medicine
- BMJ Paediatrics Open
- BMJ Quality & Safety
- BMJ Sexual & Reproductive Health
- BMJ Supportive & Palliative Care
- BMJ Surgery, Interventions, & Health Technology
- Bosnian Journal of Basic Medical Sciences
- Brain
- Brain Communications
- British Dental Journal
- British Journal of Clinical Pharmacology
- British Journal of General Practice
- British Journal of Ophthalmology
- British Journal of Sports Medicine
- British Medical Bulletin
- Bulletin of the World Health Organization
- Cadernos de Saúde Pública
- Canadian Journal of Respiratory Therapy
- Canadian Medical Association Journal
- Cardiovascular Research
- Caribbean Medical Journal
- Chinese Science Bulletin
- CIN: Computers, Informatics, Nursing
- Clinical Medicine
- Croatian Medical Journal
- Crohn's & Colitis 360
- Cureus Journal of Medical Science
- Current Developments in Nutrition
- Danish Medical Journal
- Diseases of the Colon & Rectum
- Dutch Journal of Medicine
- IJQHC Communications
- Indian Journal of Medical Ethics
- Indian Journal of Medical Research
- Inflammatory Bowel Diseases
- Injury Prevention
- BMJ Open Sport & Exercise Medicine
- Innovation in Aging
- Integrated Healthcare Journal
- International Journal of Epidemiology
- International Journal of Gynaecology & Obstetrics
- International Journal of Gynecological Cancer
- International Journal of Health Policy and Management
- International Journal of Integrated Care
- International Journal of Medical Students
- International Journal of Nursing Studies
- International Journal of Older People Nursing
- International Journal of Pharmacy Practice
- International Nursing Review
- ISA (Ingeniería Sanitaria y Ambiental)
- JAMIA Open
- JMIR Public Health & Surveillance
- JNCI Cancer Spectrum
- Journal of Child Health Care
- Journal of Clinical Pathology
- Journal of Crohn's and Colitis
- Journal of Epidemiology & Community Health
- Journal of Health and Caring Sciences
- Journal of Health, Population and Nutrition
- Journal of Medical Ethics
- Journal of Medical Genetics
- Journal of Medical Imaging and Radiation Sciences
- Journal of Nepal Paediatric Society
- Journal of Neurology Neurosurgery & Psychiatry
- Journal of Open Health Data
- Journal of Pharmaceutical Health Services Research
- Journal of Pharmacy and Pharmacology
- Journal of Public Health
- Journal of Surgical Case Reports
- Journal of Surgical Protocols and Research Methodology
- Journal of the American Medical Informatics Association
- Journal of the Medical Association of Thailand
- Journal of the National Cancer Institute
- Journal of the Norwegian Medical Association
- Journal of the Royal Society of Medicine
- Journal of Travel Medicine
- Journal of Tropical Pediatrics
- Journal of Turkish Society of Microbiology
- Kafkas Universitesi Veteriner Fakültesi Dergisi
- Khyber Medical University Journal
- Lab Medicine
- Medical Humanities
- Medical Journal of Australia
- Medical Mycology
- Medwave
- Nephrology Dialysis Transplantation
- Neuro-Oncology Advances
- Neuro-Oncology Practice
- Neurology
- New England Journal of Medicine
- Nicotine & Tobacco Research
- Nurse Author & Editor
- Nursing Inquiry
- Nutrition Reviews
- Occupational and Environmental Medicine
- Occupational Medicine
- Oxford Open Climate Change
- Oxford Open Immunology
- Pacific Rim Journal of International Nursing Research
- Paediatrics & Child Health
- Palliative Medicine
- Pan American Journal of Public Health
- Pediatric Infectious Disease Society of the Philippines Journal
- Pediatric Nursing
- The Pharmaceutical Journal
- PLOS Medicine
- Postgraduate Medical Journal
- Psychiatry and Clinical Psychopharmacology
- PTJ: Physical Therapy & Rehabilitation Journal
- Revista de la Facultad de Medicina Humana
- Revista de Saúde Pública
- Rheumatology
- RMD Open
- Schizophrenia Bulletin
- Schizophrenia Bulletin Open
- Sexually Transmitted Infections
- SLEEP
- SLEEP Advances
- Stroke and Vascular Neurology
- The American Journal of Clinical Nutrition
- The BMJ
- The Gerontologist
- The Journal of Climate Change and Health
- The Journal of Nutrition
- The Journals of Gerontology, Series A
- The Lancet
- The Lancet Child & Adolescent Health
- The Lancet Global Health
- The Lancet Infectious Diseases
- The Lancet Microbe
- The Lancet Planetary Health
- The Lancet Psychiatry
- The Lancet Public Health
- The Lancet Regional Health - Americas
- The Lancet Regional Health - Europe
- The Lancet Regional Health - Western Pacific
- The National Medical Journal of India
- The Pan-American Journal of Ophthalmology
- Thorax
- Tobacco Control
- Translational Behavioral Medicine
- Tropical Journal of Pharmaceutical Research
- Turkish Archives of Otorhinolaryngology
- Turkish Archives of Pediatrics
- Turkish Journal of Anaesthesiology and Reanimation
- Turkish Journal of Biochemistry
- Turkish Journal of Cardiovascular Nursing
- Turkish Journal of Orthodontics
- Turkish Thoracic Journal
- Universitas Medica
- Veterinary Record
- VOICE
- Western Journal of Emergency Medicine
- Women's Healthcare: A Clinical Journal for NPs
- World Journal of Pediatric Surgery

In addition, the following journals are supporting the editorial

- American Family Physician
- International Journal of Cancer
- Journal of Manipulative and Physiological Therapeutics
- Pakistan Journal of Medical Sciences
- Philippine Journal of Otolaryngology Head and Neck Surgery
- The Lancet Digital Health
- The Lancet Gastroenterology & Hepatology
- The Lancet Haematology
- The Lancet Healthy Longevity
- The Lancet HIV
- The Lancet Respiratory Medicine
- The Lancet Rheumatology
- Open Journal of Bioresearch
- Veterinary Anaesthesia and Analgesia
- Journal of Advanced Nursing
- Journal of Clinical Nursing
- Nursing Open
- Revista Venezolana de Salud Pública
- Revista Médica del Uruguay
- Revista Argentina de Salud Pública
- GeoHealth
- American Geophysical Union Journals
- Methodist DeBakey Cardiovascular Journal

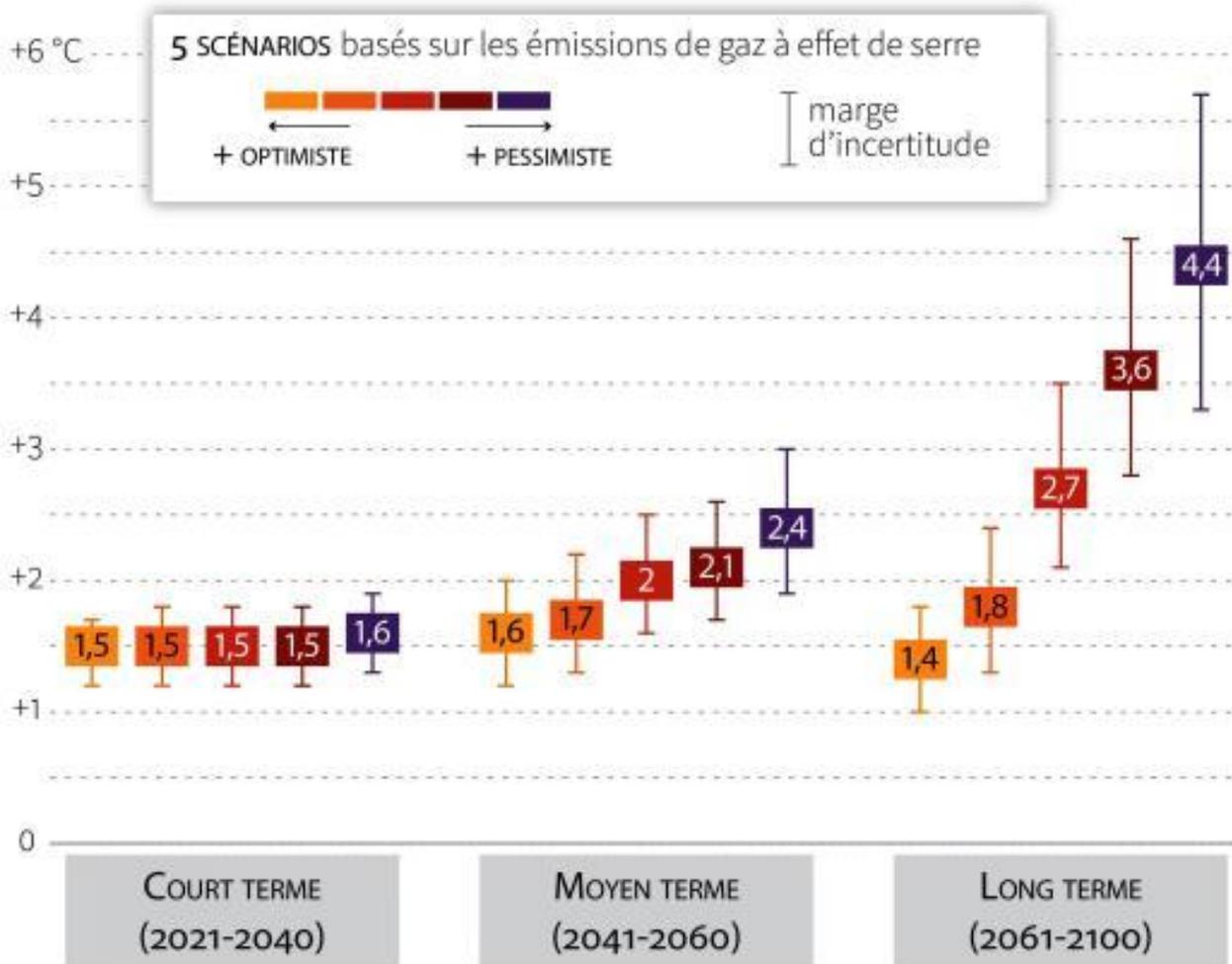
Malgré la préoccupation nécessaire pour lutter contre la Covid-19, nous ne pouvons pas attendre que la pandémie passe pour réduire rapidement les émissions.

Comment opérationnaliser une transition écologique pour le Québec ?



Les scénarios du réchauffement climatique

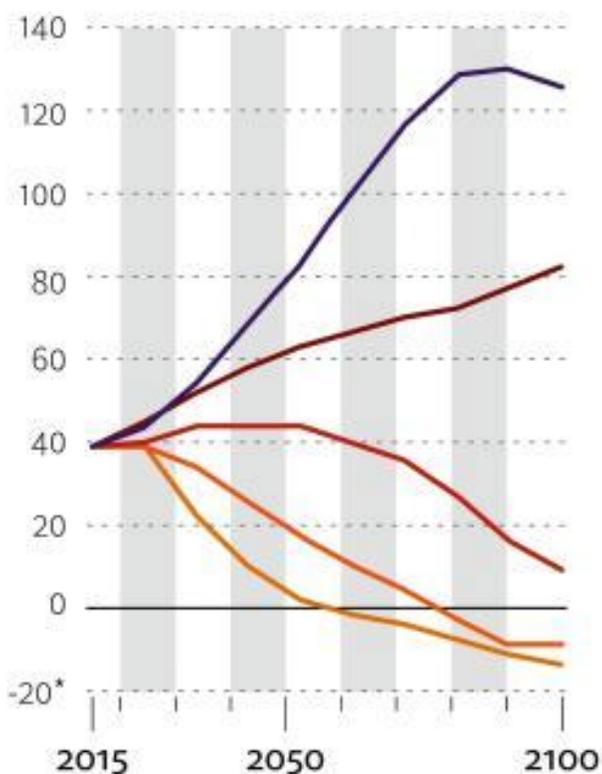
Augmentation des températures mondiales, en degrés Celsius, par rapport aux niveaux pré-industriels (1850-1900)



Source : Groupe d'experts intergouvernemental sur l'évolution du climat (Giec)

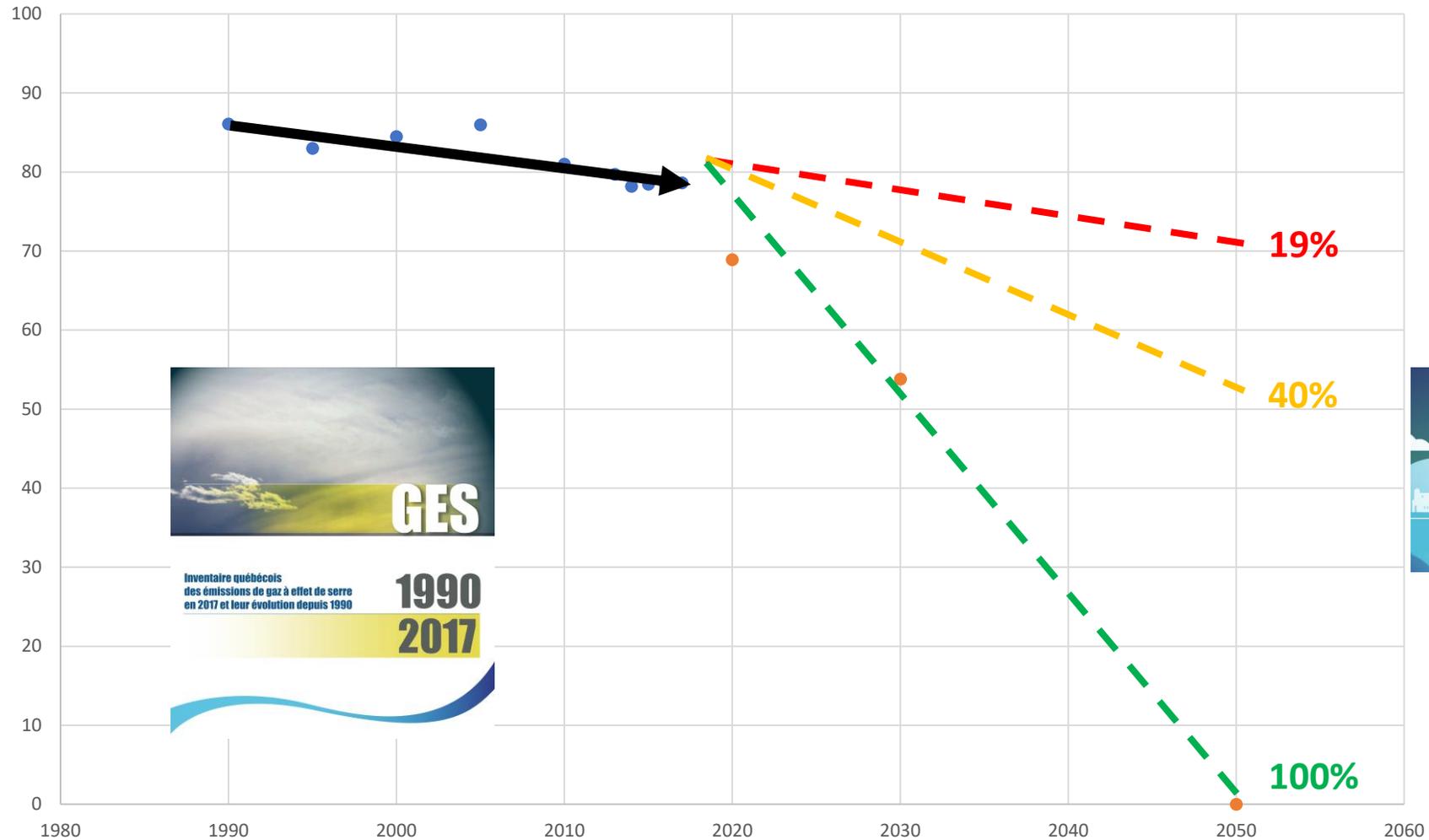
Émissions annuelles de dioxyde de carbone pour chaque scénario envisagé

En gigatonnes



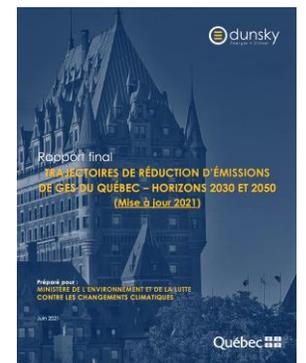
*Émissions négatives : davantage de CO₂ est « retiré » de l'atmosphère que ce qui est rejeté

Bilan et tendances des émissions de GES



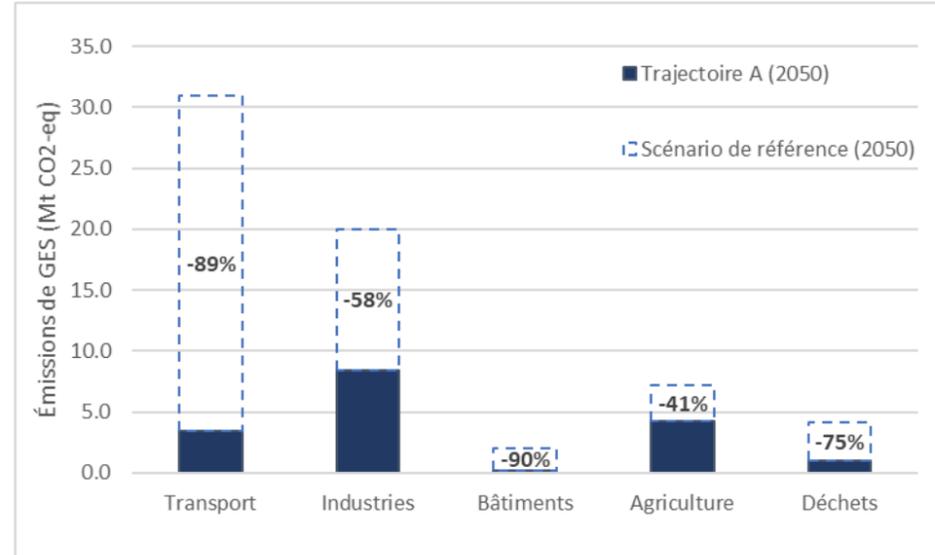
Inventaire québécois
des émissions de gaz à effet de serre
en 2017 et leur évolution depuis 1990

1990
2017



Réduire massivement nos émissions

1. Accélérer les technologies sobres en carbone
2. Agir pour réduire les demandes



GNL Québec : Pour en finir avec les boulets climatiques

Le rejet du projet GNL Québec est un pas dans la bonne direction, mais si nous voulons atteindre la carboneutralité d'ici 2050, le gouvernement devra aller beaucoup plus loin, explique notre collaborateur Jérôme Dupras.

Environnement
par Jérôme Dupras
- 31 août 2021



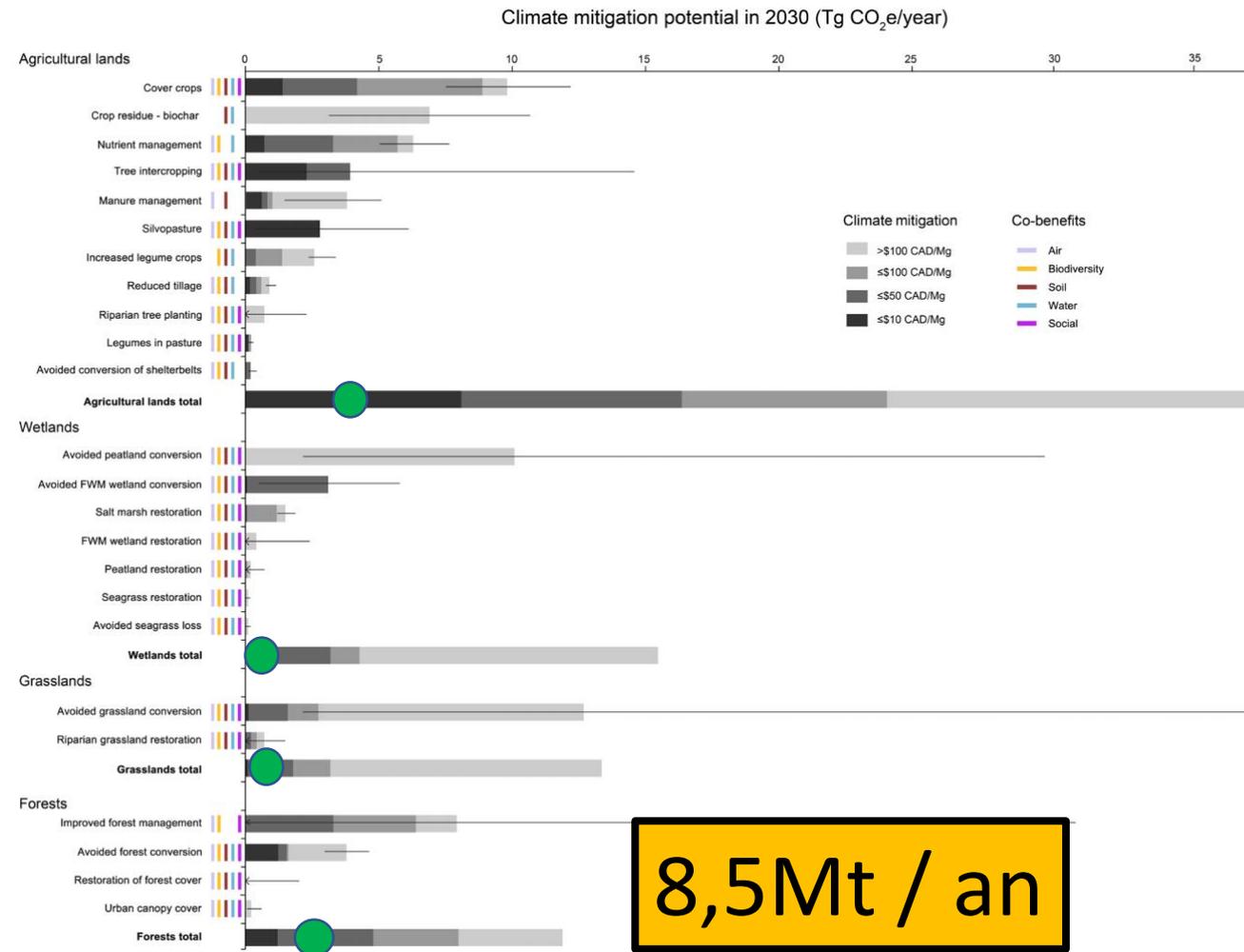
L'actualité

2. Capter et séquestrer le carbone

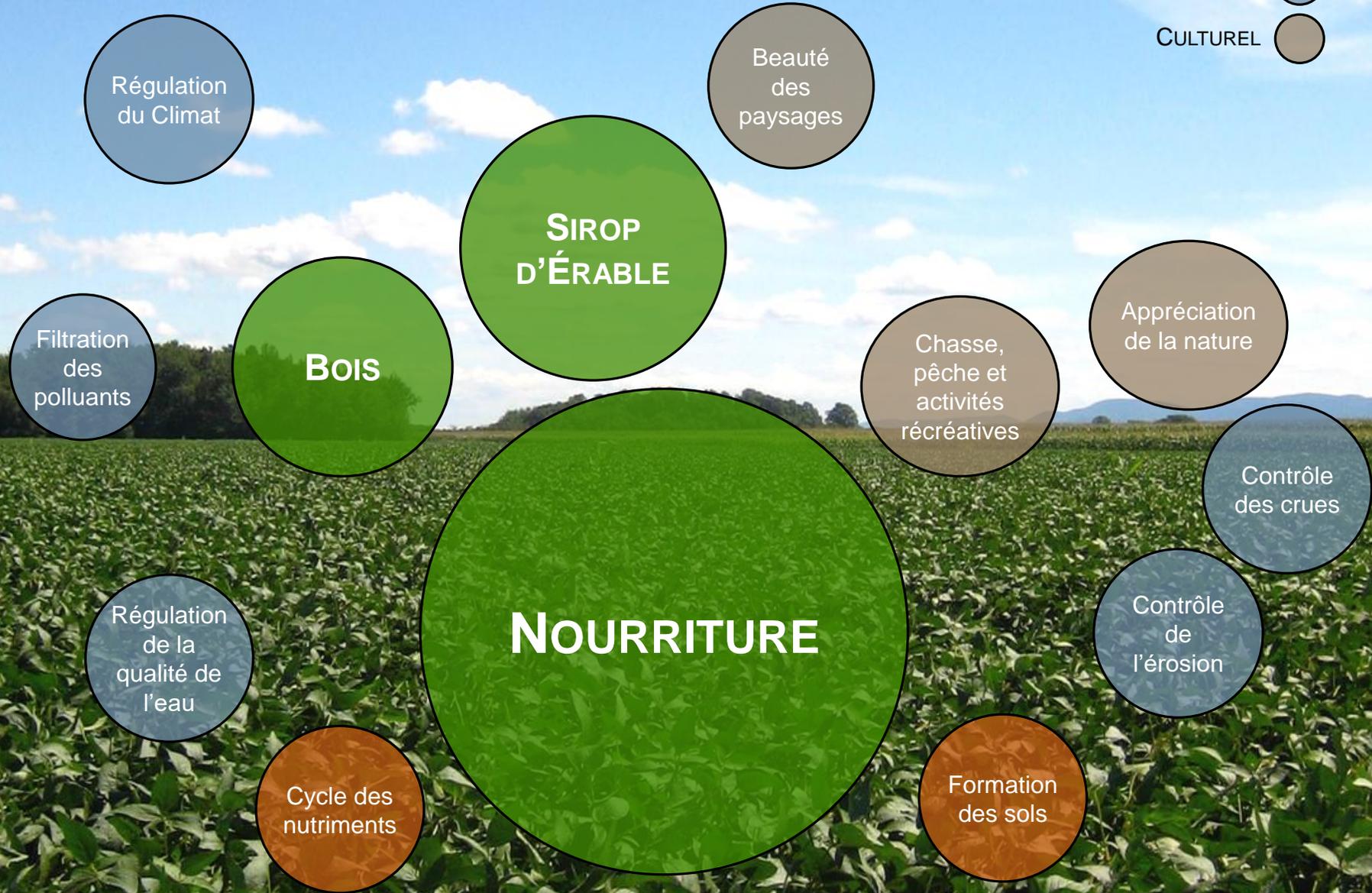
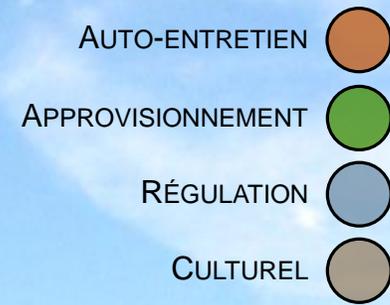
APPLIED ECOLOGY

Natural climate solutions for Canada

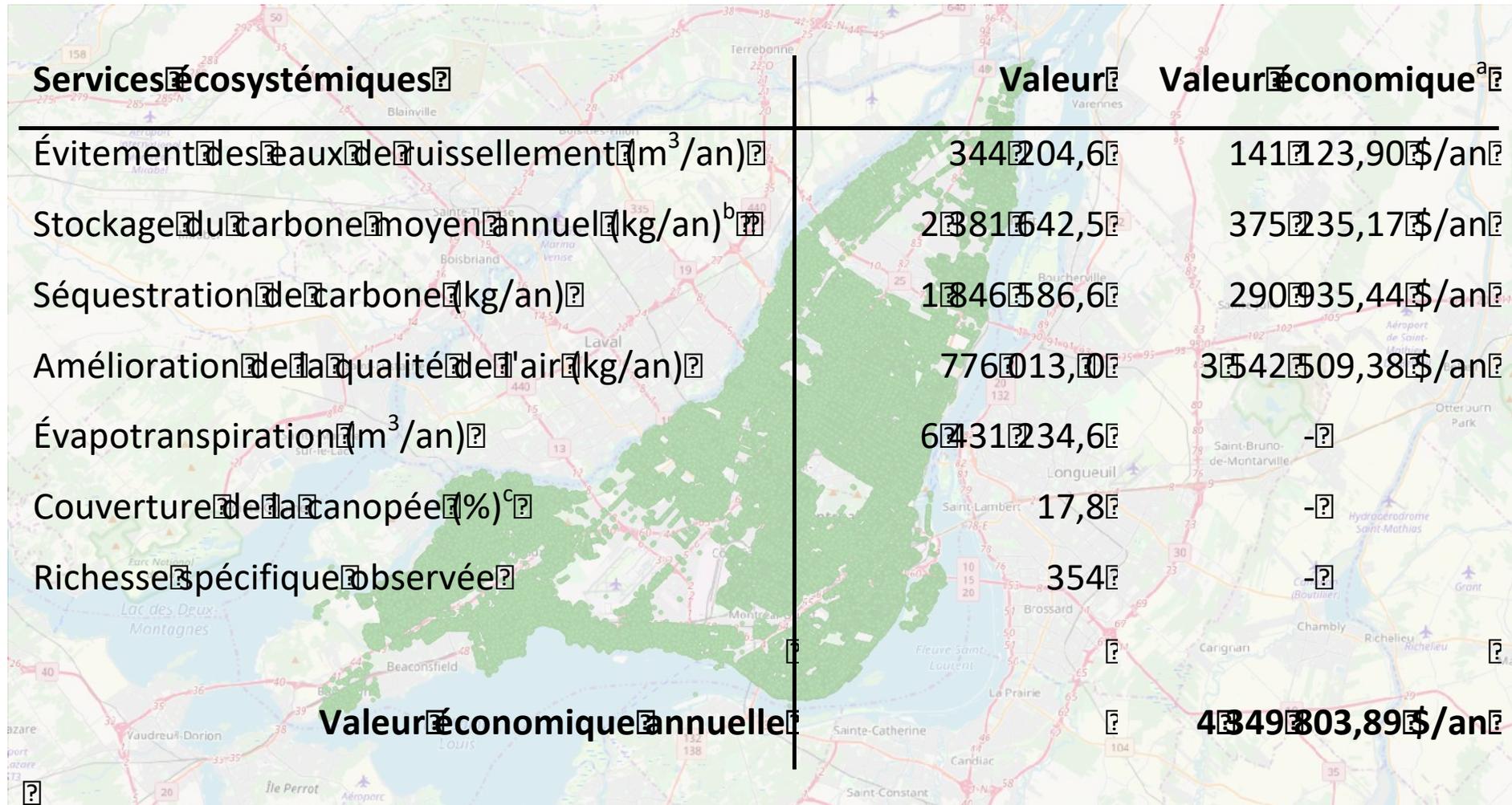
C. Ronnie Drever^{1*†}, Susan C. Cook-Patton^{2,3†}, Fardausi Akhter⁴, Pascal H. Badiou⁵, Gail L. Chmura⁶, Scott J. Davidson⁷, Raymond L. Desjardins⁸, Andrew Dyk⁹, Joseph E. Fargione¹⁰, Max Fellows⁹, Ben Filewod¹¹, Margot Hessing-Lewis¹², Susantha Jayasundara¹³, William S. Keeton¹⁴, Timm Kroeger², Tyler J. Lark¹⁵, Edward Le¹⁶, Sara M. Leavitt², Marie-Eve LeClerc⁹, Tony C. Lemprière¹⁷, Juha Metsaranta¹⁸, Brian McConkey¹⁹, Eric Neilson⁹, Guillaume Peterson St-Laurent²⁰, Danijela Puric-Mladenovic¹¹, Sebastien Rodrigue¹⁸, Raju Y. Soolanayakanahally⁴, Seth A. Spawn¹⁵, Maria Strack⁷, Carolyn Smyth⁹, Naresh Thevathasan¹³, Mihai Voicu¹⁸, Christopher A. Williams²¹, Peter B. Woodbury²², Devon E. Worth⁹, Zhen Xu¹⁶, Samantha Yeo², Werner A. Kurz⁹



Les services écosystémiques



L'analyse des 413 297 arbres publics de Montréal



| Services écosystémiques ^a | Valeur ^b | Valeur économique ^a |
|---|---------------------|--------------------------------|
| Évitement des eaux de ruissellement (m ³ /an) ^c | 344 204,6 | 141 123,90 \$/an |
| Stockage du carbone moyen annuel (kg/an) ^b | 2 381 642,5 | 375 235,17 \$/an |
| Séquestration de carbone (kg/an) ^c | 1 846 586,6 | 290 935,44 \$/an |
| Amélioration de la qualité de l'air (kg/an) ^c | 776 013,0 | 354 2509,38 \$/an |
| Évapotranspiration (m ³ /an) ^c | 6 431 234,6 | - |
| Couverture de la canopée (%) ^c | 17,8 | - |
| Richesse spécifique observée ^d | 354 | - |
| Valeur économique annuelle | | 4 349 803,89 \$/an |

La valeur des forêts urbaines du Canada

Tableau 1 – Bienfaits annuels procurés par la forêt urbaine de Toronto

| Bienfait | Valeur (en millions \$) | \$/arbre |
|---|-------------------------|----------------------|
| Débits par temps pluvieux | 53.95 \$ | 5.28 \$ |
| Qualité de l'air | 19.09 \$ | 1.87 \$ |
| Économie d'énergie | 6.42 \$ | 0.63 \$ |
| Séquestration du carbone | 1.24 \$ | 0.12 \$ |
| Réduction des émissions liées à la consommation d'énergie | 0.58 \$ | 0.06 \$ |
| Total des bienfaits | 81.29 \$ | 7.95 \$ |
| Ratio coûts/avantages | - | De 1,35 \$ à 3,20 \$ |

* Les chiffres pour les émissions de carbone évitées et le carbone séquestré tiennent compte de la décomposition et de l'entretien des arbres.

Sources : Service des parcs, de la foresterie et des loisirs de Toronto, Services économiques TD.

Tableau 2 – Bienfaits annuels procurés par la forêt urbaine de Halifax et de sa banlieue

| Bienfait | Valeur (en millions \$) | \$/arbre |
|----------------------------|-------------------------|----------------|
| Débits par temps pluvieux | 2.10 \$ | 0.04 \$ |
| Qualité de l'air | 12.59 \$ | 0.22 \$ |
| Économie d'énergie | 12.40 \$ | 0.21 \$ |
| Séquestration du carbone | 4.28 \$ | 0.07 \$ |
| Total des bienfaits | 31.37 \$ | 0.54 \$ |
| Ratio coûts/avantages | - | 12.70 \$ |

Sources : Municipalité régionale de Halifax, Services économiques TD.

Tableau 3 – Forêts urbaines de Montréal : Bienfaits annuels

| Bienfait | Valeur (en millions \$) | \$/arbre |
|----------------------------|-------------------------|----------------|
| Débits par temps pluvieux | 15.95 \$ | 2.66 \$ |
| Qualité de l'air | 6.19 \$ | 1.03 \$ |
| Économie d'énergie | 1.72 \$ | 0.29 \$ |
| Séquestration du carbone | 0.58 \$ | 0.10 \$ |
| Total des bienfaits | 24.44 \$ | 4.07 \$ |
| Ratio coûts/avantages | - | 1.88 \$ |

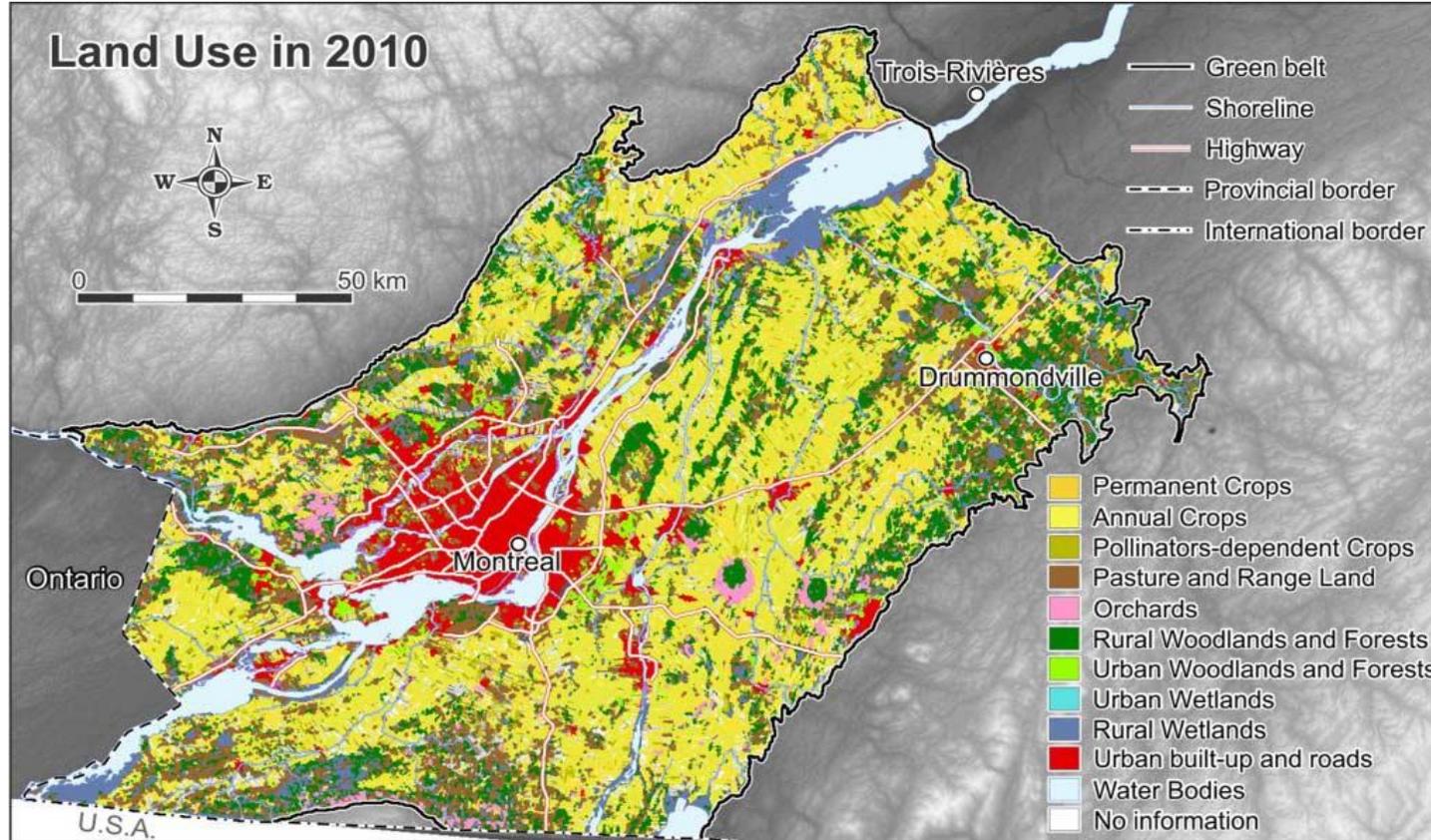
Sources : Ville de Montréal, Services économiques TD.

Tableau 4 – Bienfaits annuels procurés par la forêt urbaine du district régional du Grand Vancouver

| Bienfait | Valeur (en millions \$) | \$/arbre |
|----------------------------|-------------------------|----------------|
| Débits par temps pluvieux | 96.43 \$ | 1.34 \$ |
| Qualité de l'air | 115.86 \$ | 1.61 \$ |
| Économie d'énergie | 4.64 \$ | 0.16 \$ |
| Séquestration du carbone | 7.21 \$ | 0.10 \$ |
| Total des bienfaits | 224.15 \$ | 3.21 \$ |
| Ratio coûts/avantages | - | 4.59 \$ |

Sources : i-Tree Canopy, Ville de Vancouver, Ville de North Vancouver, Ville de Surrey, Metro Vancouver, Manitoba Hydro, Services économiques TD.

- 100M arbres
- Total de 58G\$
- De 2 à 13\$



| Ecosystem Service | Total Value (\$M)/y |
|---------------------------|---------------------|
| | 2173.3 |
| Global Climate Regulation | 17.8 |
| Air Quality | 366.4 |
| Water Provisioning | 220.9 |
| Waste Treatment | 122.2 |
| Erosion Control | 16.2 |
| Pollination | 26.0 |
| Biodiversity Habitat | 910.5 |
| Disturbance Prevention | 34.9 |
| Nutrient Cycling | 21.9 |
| Aesthetics | 54.1 |
| Recreation | 382.4 |

La valeur économique des milieux humides

- Valeur foncière
- Valeur industrie (canneberge, tourbe, prélèvement, ...)
- Services écologiques (biodiversité, sédiments, inondations, prélèvement): pour le BV Bécancour 131M\$ - 4 700\$/ha/an

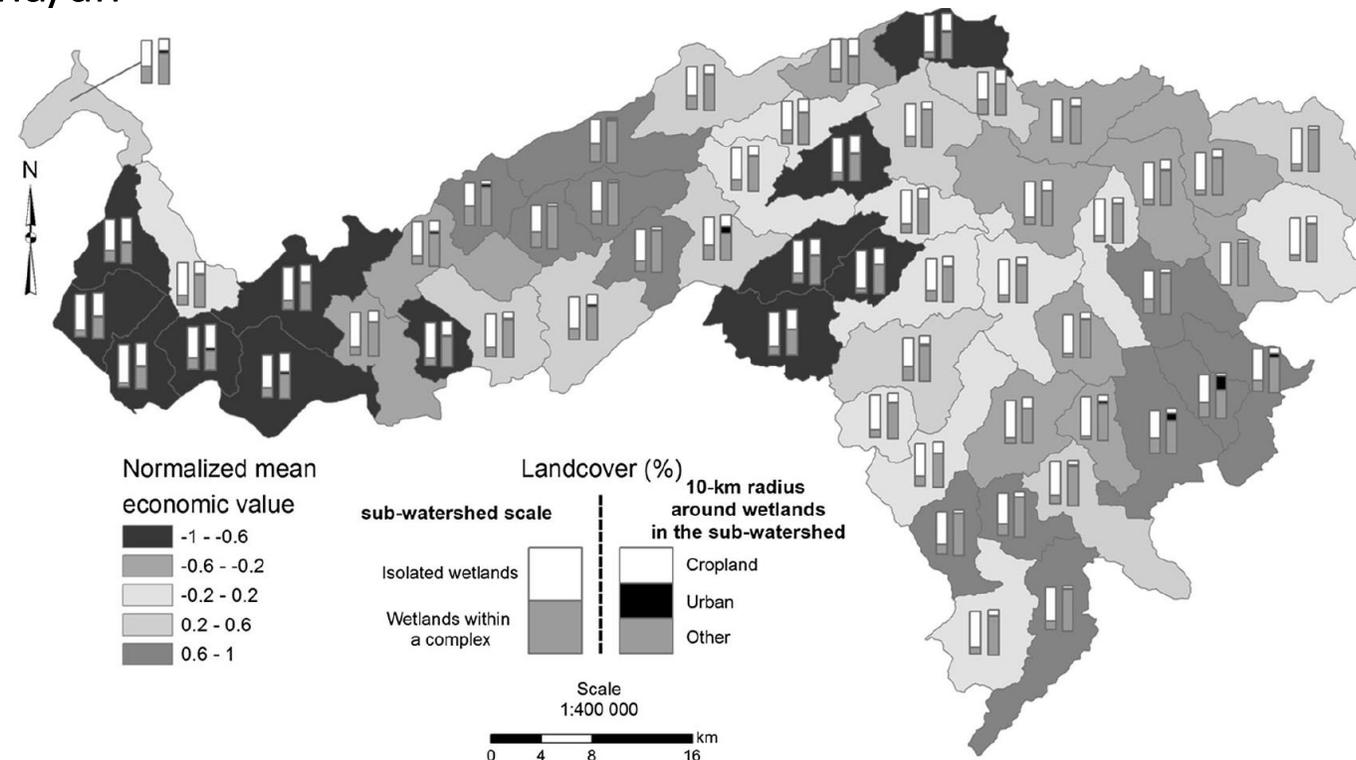


Fig. 2 Per hectare values and wetland characteristics for the Bécancour River Sub-watersheds (approximately 50 km²)



MESH Model Interface

The screenshot shows the MESH-SDG Model interface with the following components and callouts:

- 1. Scenario Generator:** Points to the 'Define Scenarios' panel on the right, which includes buttons for 'New Scenario', 'Load Scenario', and 'Check if ready', and a table of scenarios.
- 2. Select relevant ES:** Points to the 'Setup Baseline model runs' panel on the left, which lists various environmental indicators like 'Nutrient Retention', 'Hydropower Water Yield', 'Carbon Storage', 'Pollination', and 'Sediment Delivery' with 'Setup' buttons.
- 3. Run the models:** Points to the 'Run MESH Model' button in the top toolbar.
- 4. Results output:** Points to the 'View Input and Output Maps' panel in the center, which displays a map of 'Water Yield' with a color scale from 60 to 600 mm per year.
- 5. Report:** Points to the 'View/Create Report' button in the top toolbar.

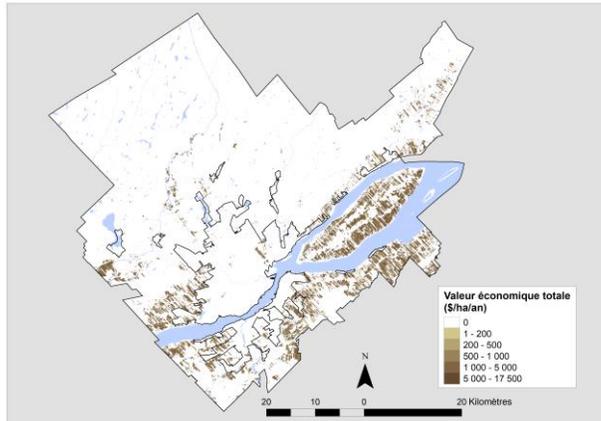
Define Scenarios Panel:

| Scenario Name | File Name | Run | Stop | Refresh |
|---------------|----------------------------|-------------------------------------|--------------------------|--------------------------|
| Baseline | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| NoAg | NoAg_robinson_clip1.tif | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| SusAg | SusAg_robinson_clip1.tif | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| AllowAg | AllowAg_robinson_clip1.tif | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

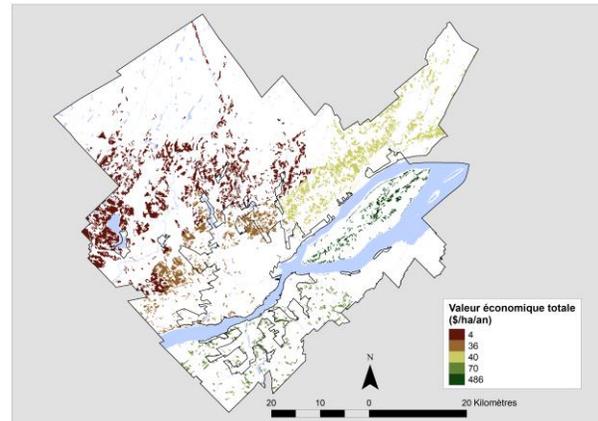
Display Maps from Scenarios Panel:

| Map Name | View | Refresh | Close |
|---|-------------------------------------|--------------------------|--------------------------|
| f1 Baseline hydropower_water_yield act.tif | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f1 Baseline hydropower_water_yield fractp.tif | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f1 Baseline hydropower_water_yield vyield.tif | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f1 Baseline carbon_combined tot_c_cuc.tif | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f1 Baseline sdr r/ris.tif | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f1 Baseline sdr sed_export.tif | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f1 Baseline sdr sed_retention_index.tif | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

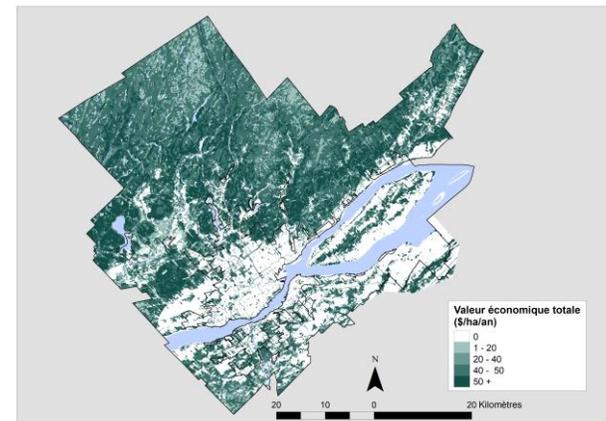
Production agricole



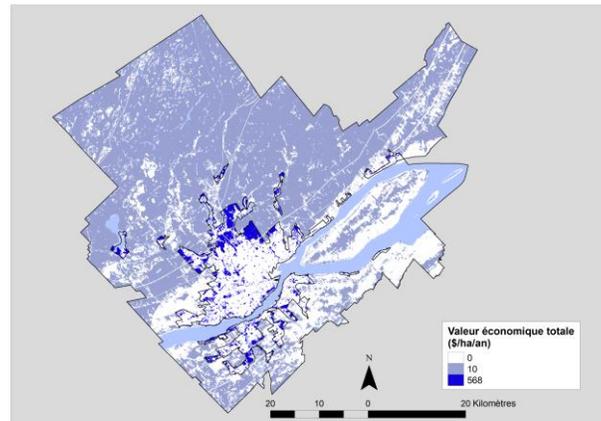
Production acéricole



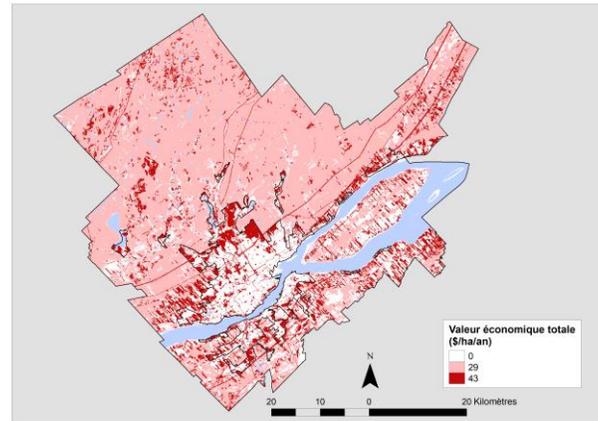
Séquestration du carbone



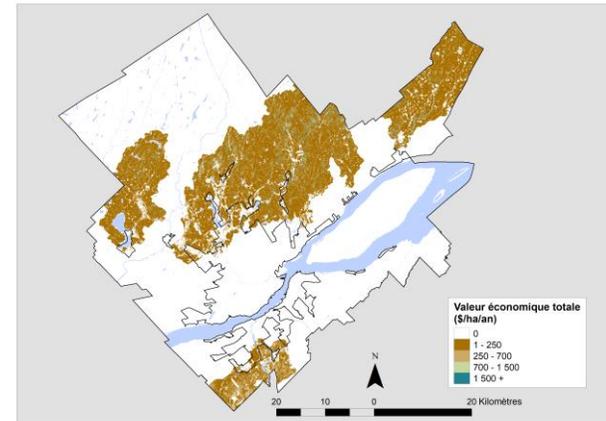
Qualité de l'air



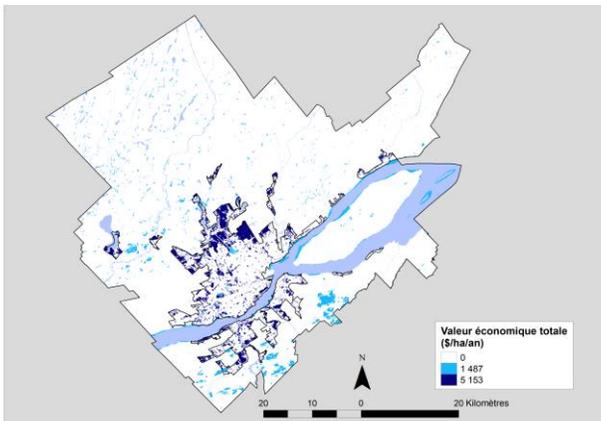
Contrôle biologique



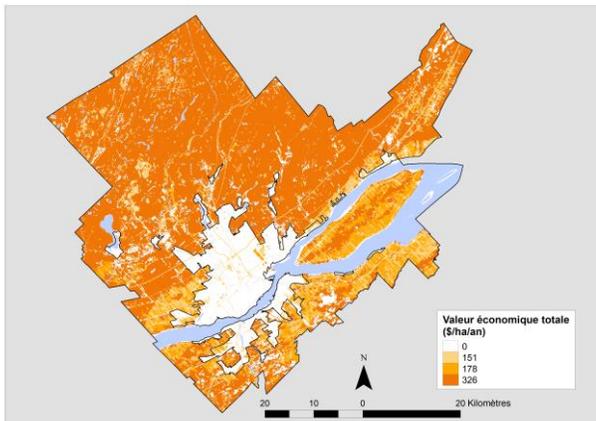
Contrôle de l'érosion



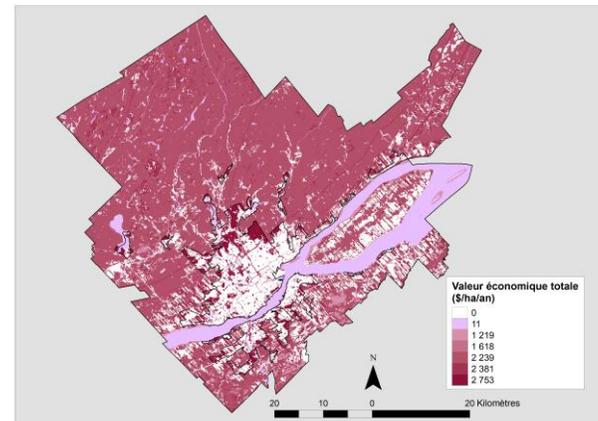
Prévention des inondations



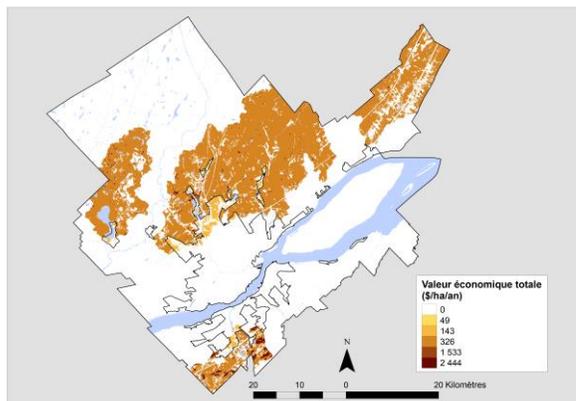
Cycle des nutriments



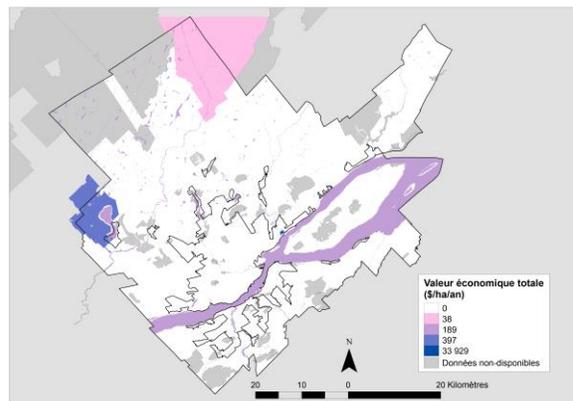
Habitat favorisant la biodiversité



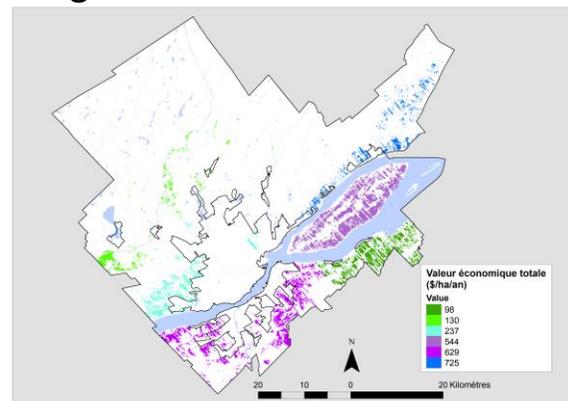
Traitement des polluants



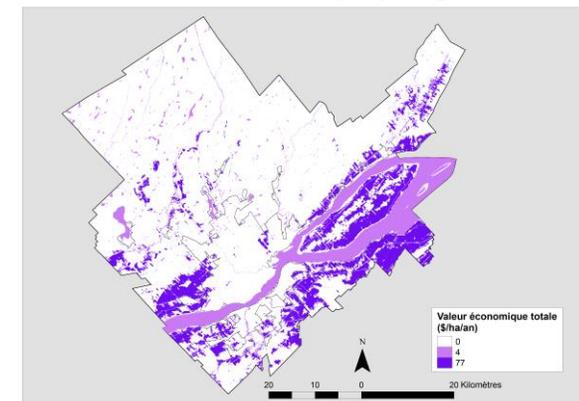
Récréotourisme



Agrotourisme



Esthétisme du paysage



Dasgupta Review on Economics of Biodiversity

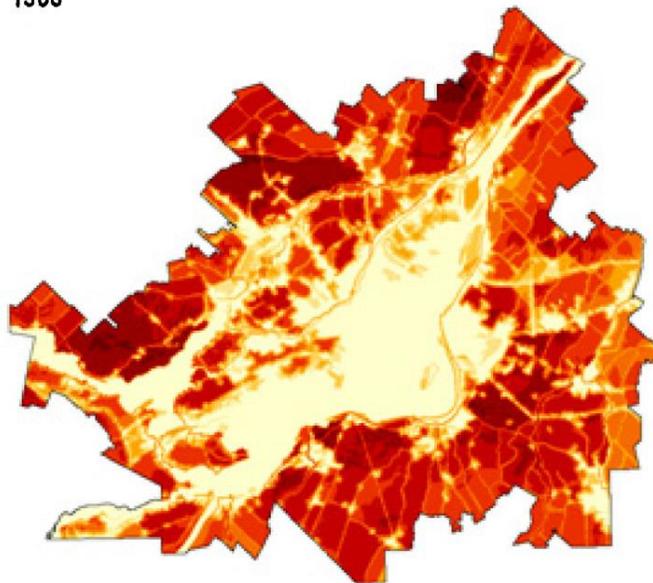


Dasgupta Review
The Economics of Biodiversity

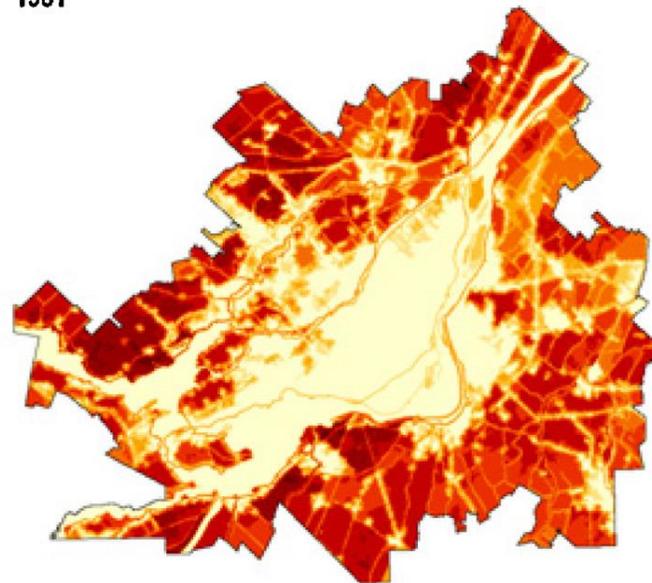


SEI Stockholm
Environment
Institute

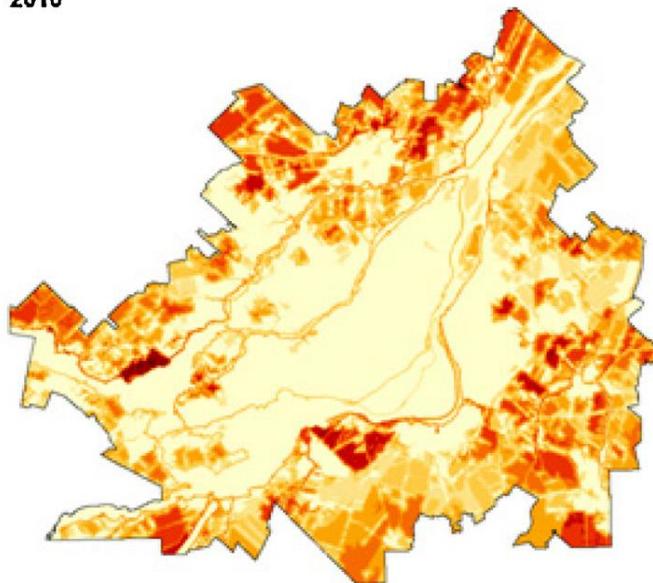
1966



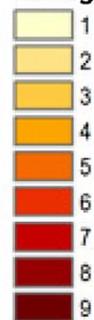
1981



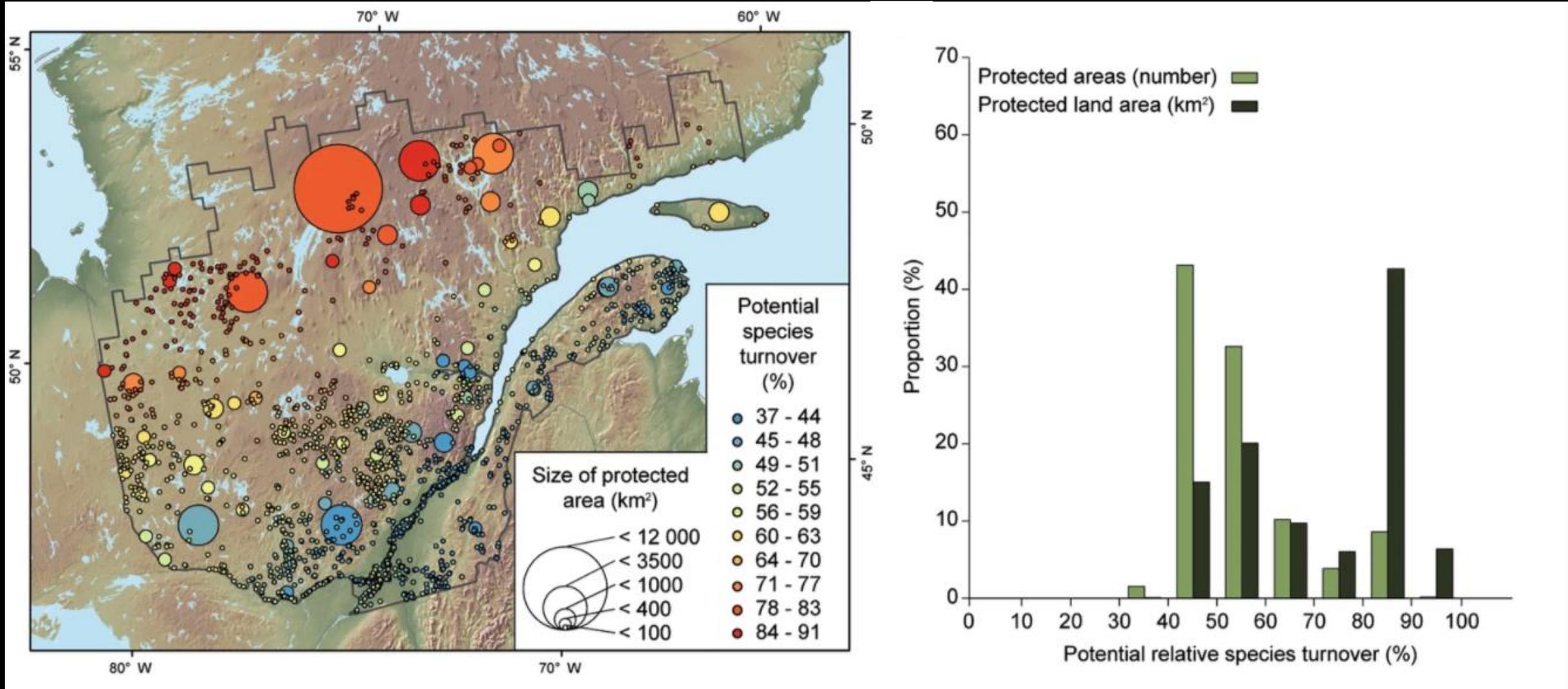
2010

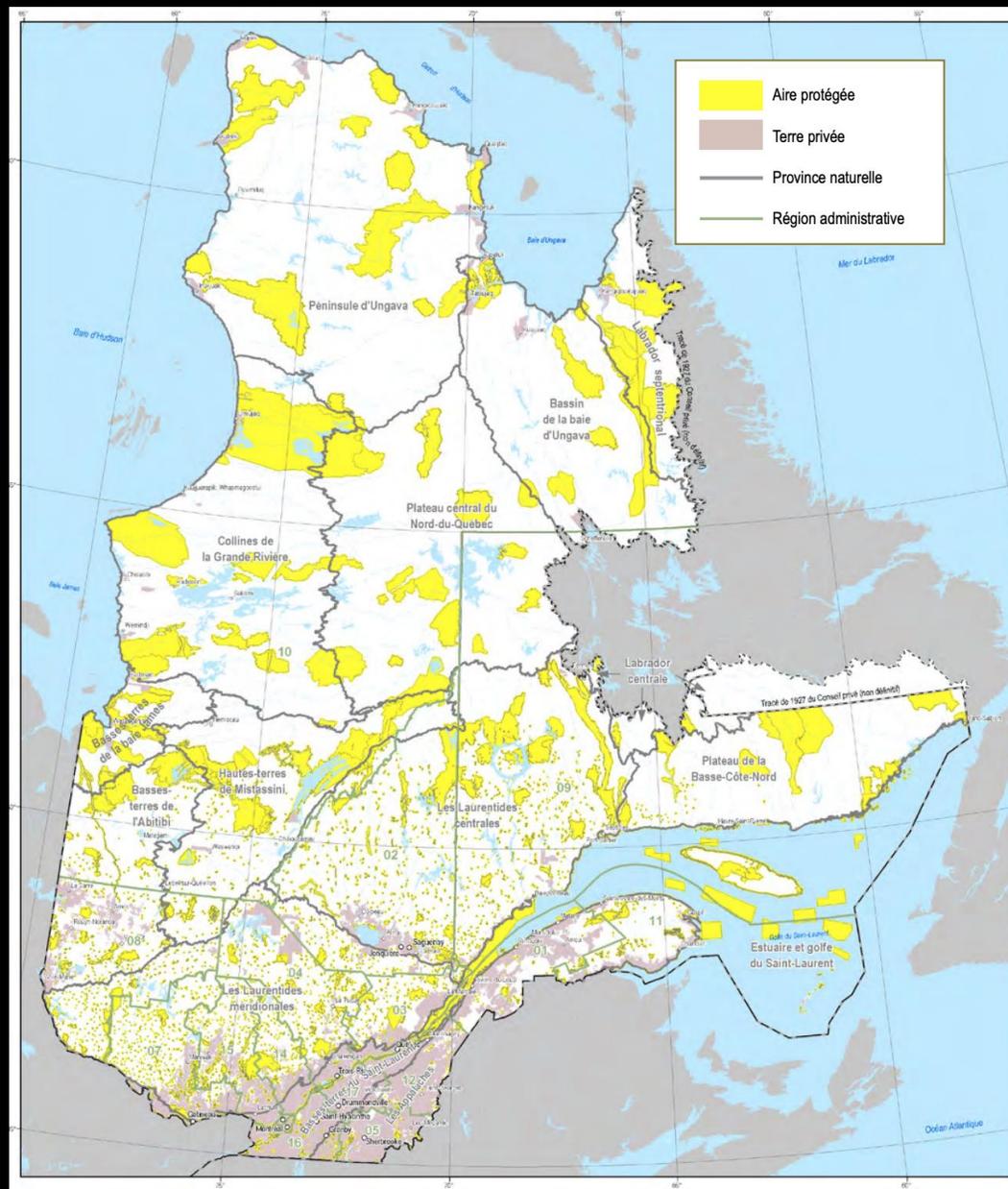


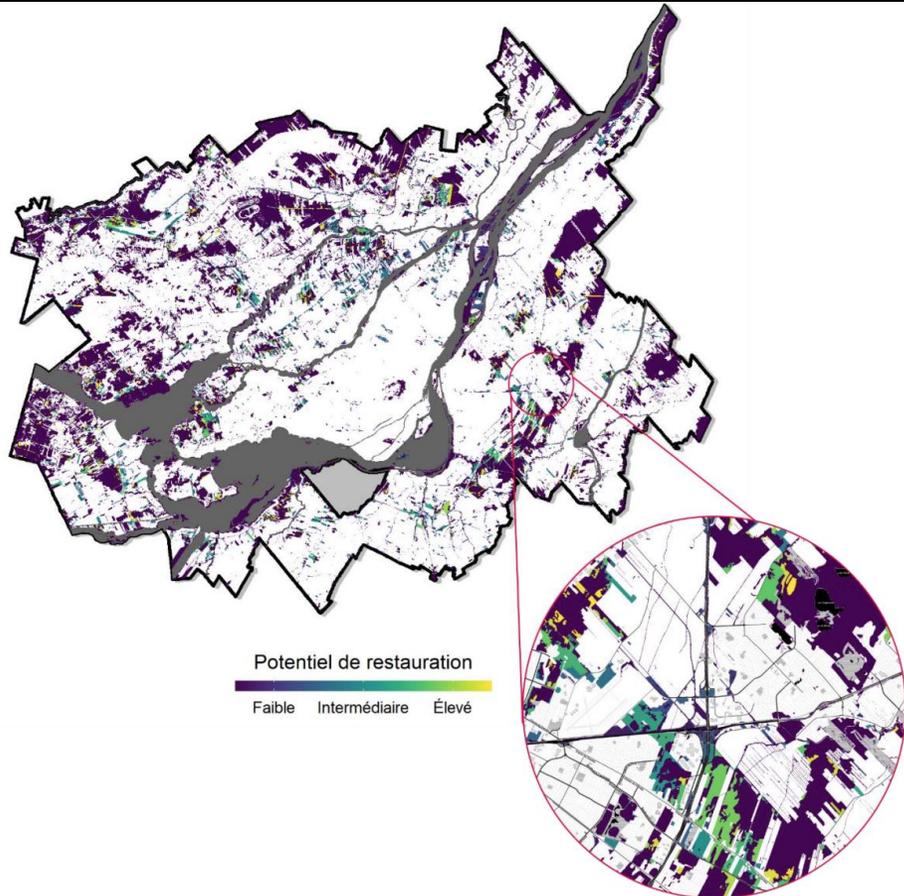
Ecological Connectivity Index (ECI)



0 10 km 

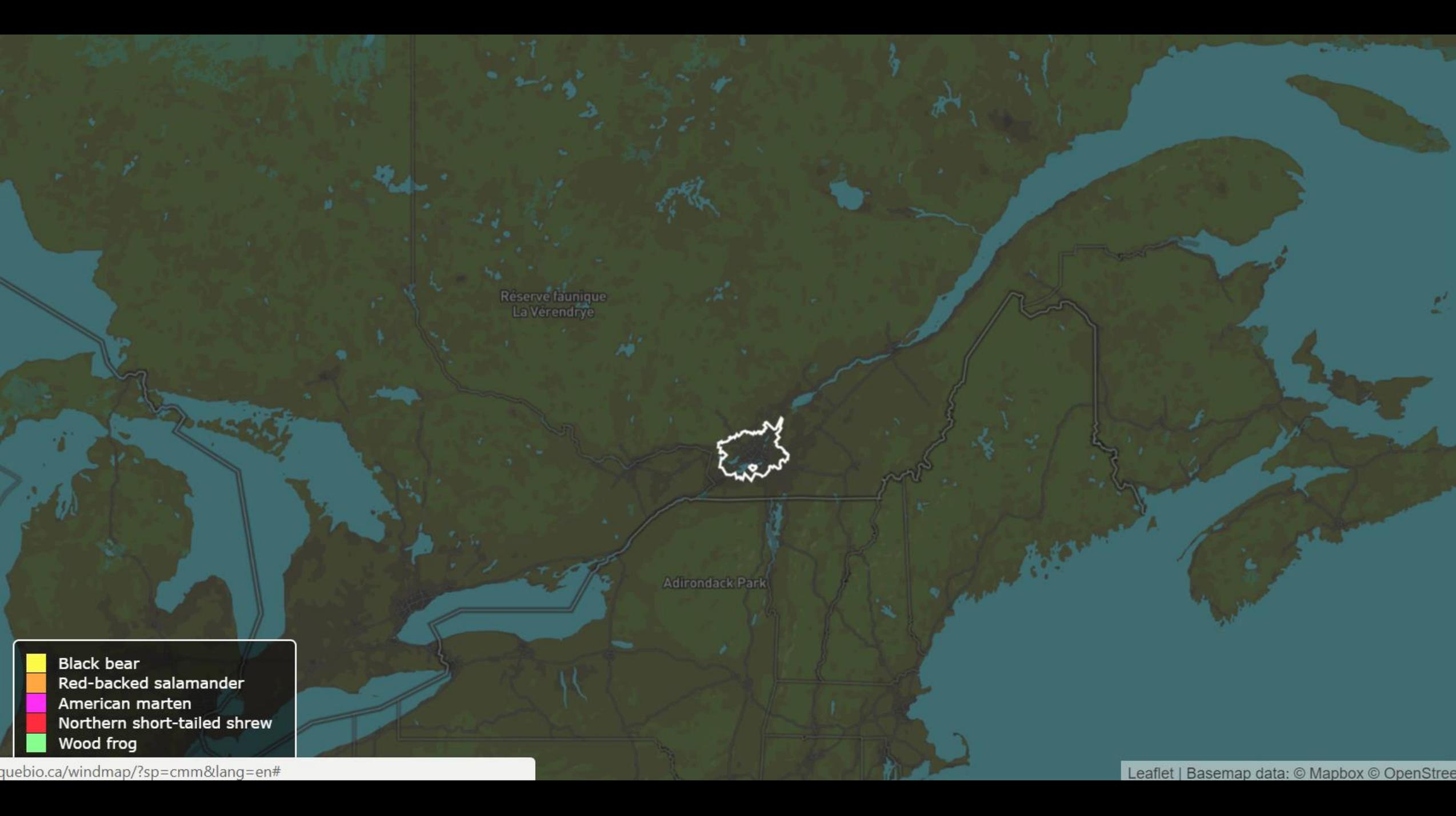






| MRC | Moyenne (%) | ET (%) | Sup. (ha) | MN (%) | CMM (%) |
|------------------------|-------------|--------|-----------|--------|---------|
| Beauharnois-Salaberry | 38,4 | 25,8 | 486,6 | 0,5 | 0,1 |
| Deux-Montagnes | 60,4 | 27,6 | 1 077,0 | 1 | 0,3 |
| L'Assomption | 36,5 | 29,8 | 528,5 | 0,5 | 0,1 |
| La Vallée-du-Richelieu | 49,0 | 30,4 | 972,5 | 0,9 | 0,2 |
| Laval | 45,0 | 24,5 | 2 971,9 | 2,7 | 0,7 |
| Les Moulins | 60,0 | 28,1 | 1 740,0 | 1,6 | 0,4 |
| Longueuil | 53,7 | 28,4 | 2 421,4 | 2,2 | 0,6 |
| Marguerite-D'Youville | 39,6 | 30,2 | 2 236,0 | 2,1 | 0,5 |
| Mirabel | 56,4 | 27,2 | 2 714,5 | 2,5 | 0,6 |
| Montréal | 47,9 | 27,3 | 1 820,0 | 1,7 | 0,4 |
| Roussillon | 46,2 | 30,0 | 2 255,0 | 2,1 | 0,5 |
| Rouville | 45,9 | 32,2 | 114,3 | 0,1 | 0,03 |
| Thérèse-De Blainville | 48,5 | 26,1 | 962,2 | 0,9 | 0,2 |
| Vaudreuil-Soulanges | 55,2 | 29,5 | 2 240,1 | 2,1 | 0,5 |





Réserve faunique
La Vérendrye

Adirondack Park

- Black bear
- Red-backed salamander
- American marten
- Northern short-tailed shrew
- Wood frog

Protection

Corridors naturels

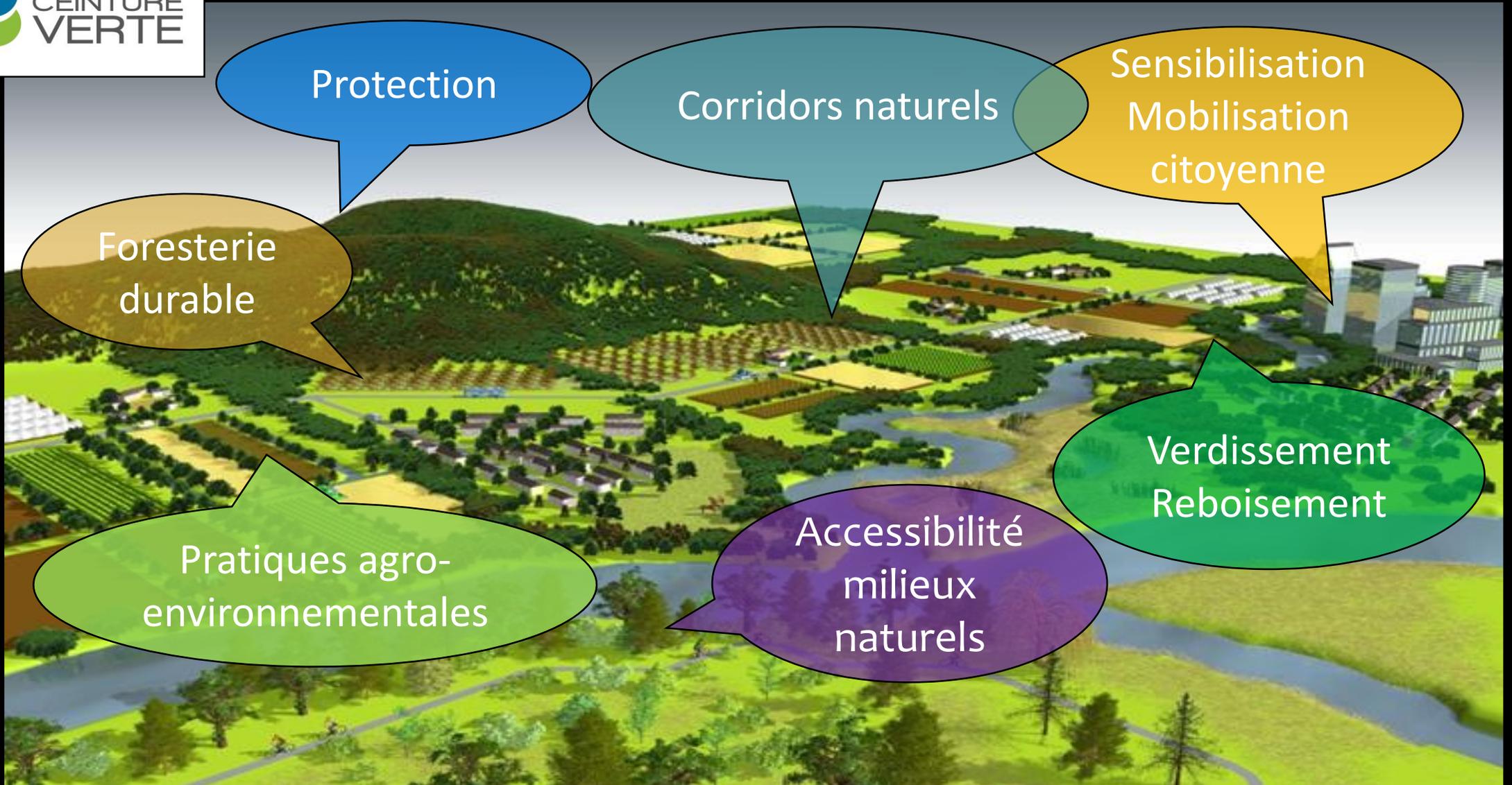
Sensibilisation
Mobilisation
citoyenne

Foresterie
durable

Verdissement
Reboisement

Pratiques agro-
environnementales

Accessibilité
milieux
naturels





PROTECTION DES MILIEUX HUMIDES ET HYDRIQUES :
UN NOUVEAU RÉGIME MODERNE, CLAIR, PRÉVISIBLE
ET OPTIMISÉ AU BÉNÉFICE DE TOUS

AGIR, POUR UNE AGRICULTURE DURABLE

PLAN 2020-2030



VERS UNE
STRATÉGIE NATIONALE
D'URBANISME
ET D'AMÉNAGEMENT
DES TERRITOIRES



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Plus de 17 000 participants
Merci de contribuer à la vision
d'avenir pour la faune du Québec!

Votre gouvernement

Québec



October 7, 2015

M-16-01

MEMORANDUM FOR EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: Shaun Donovan, Director
Office of Management and Budget

Christina Goldfuss, Managing Director
Council on Environmental Quality

John Holden, Director
Office of Science and Technology Policy

SUBJECT: Incorporating Ecosystem Services into Federal Decision Making

Overview. Nature provides vital contributions to economic and social well-being that are often not traded in markets or fully considered in decisions. This memorandum provides direction to agencies on incorporating ecosystem services into Federal planning and decision making. (Broadly defined, ecosystem services are the benefits that flow from nature to people, e.g., nature's contributions to the production of food and timber; life-support processes, such as water purification and coastal protection; and life-fulfilling benefits, such as places to recreate.)

Specifically, this memorandum:

- (1) Directs agencies to develop and institutionalize policies to promote consideration of ecosystem services, where appropriate and practicable, in planning, investments, and regulatory contexts. (Consideration of ecosystem services may be accomplished through a range of qualitative and quantitative methods to identify and characterize ecosystem services, affected communities' needs for those services, metrics for changes to those services and, where appropriate, monetary or nonmonetary values for those services.)
- (2) Sets forth the process for development of implementation guidance and directs agencies to implement aforementioned policies and integrate assessments of ecosystem services, at the





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QUÉBEC



1

Financement



2

Appel de propositions



3

Comité scientifique



4

Plantation

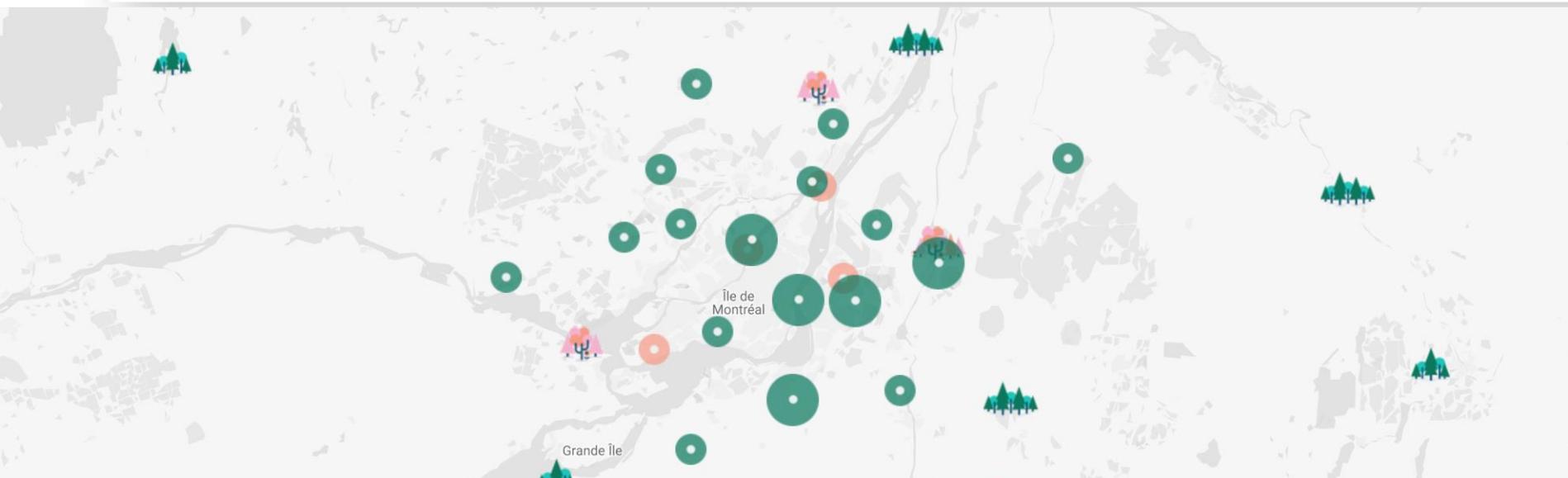


5

Identification

375 000
ARBRES

CONCERTS *UN ARBRE POUR TOUS*

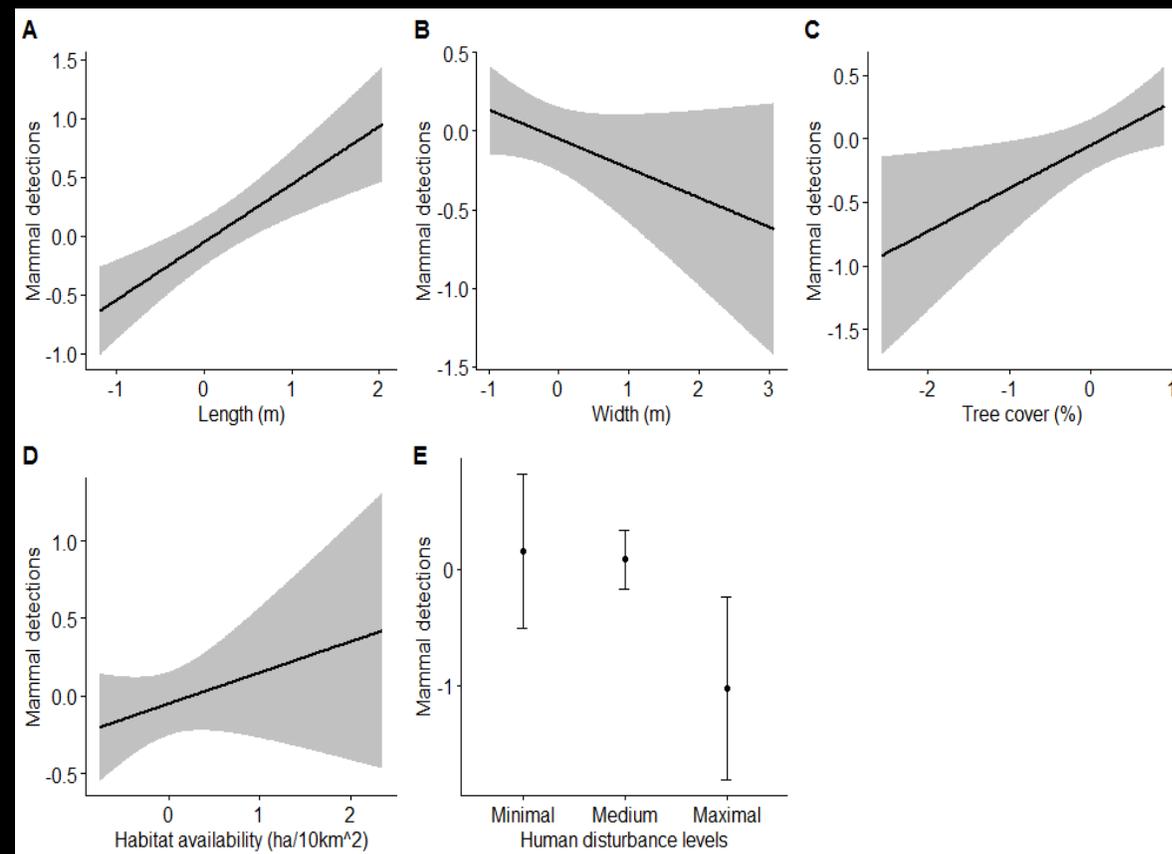


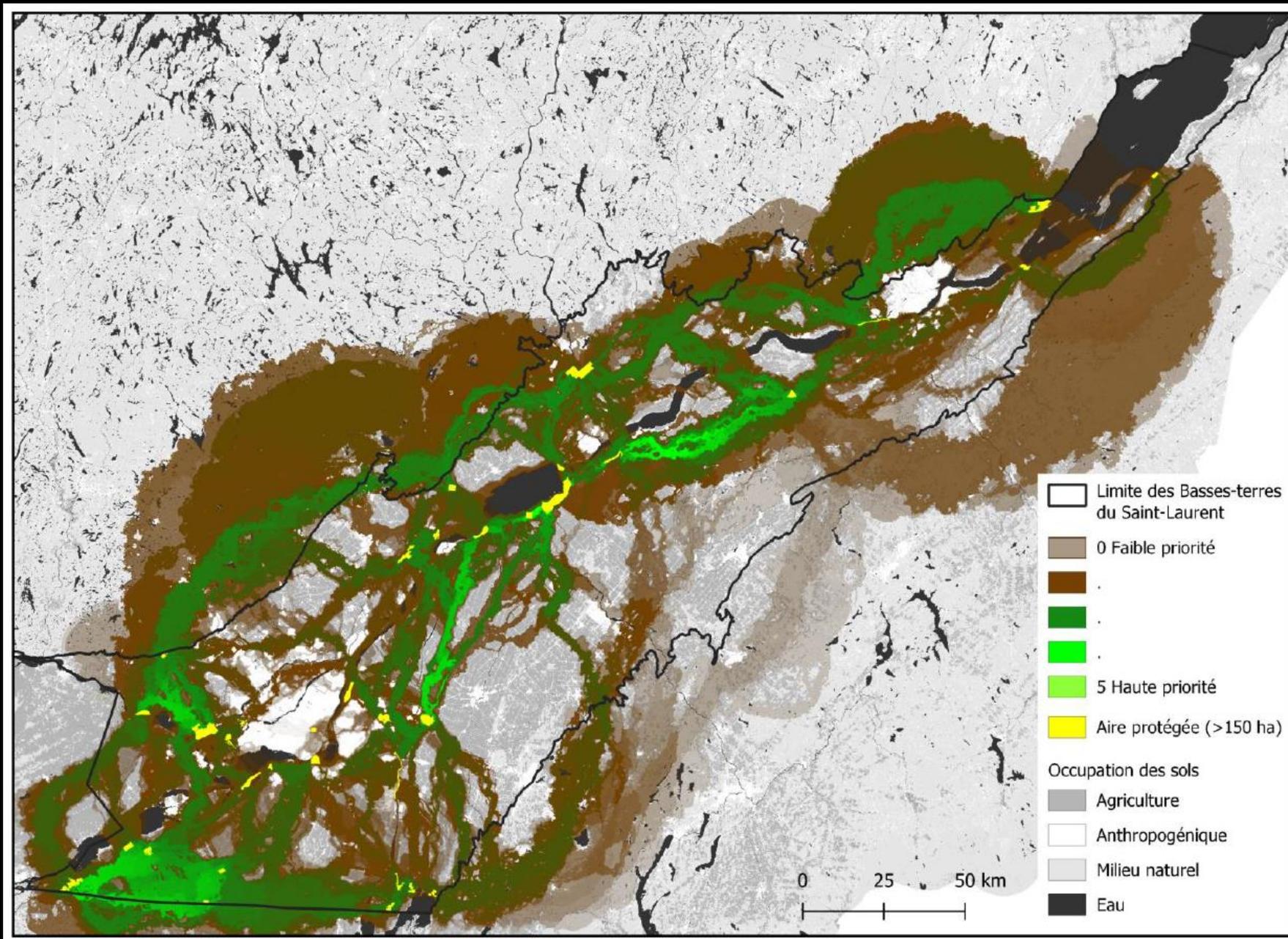

226 583
ARBRES
PLANTÉS


148 417
ARBRES
À PLANTER


4
PARTENAIRES
FORÊT


IDENTIFIEZ
VOS ARBRES









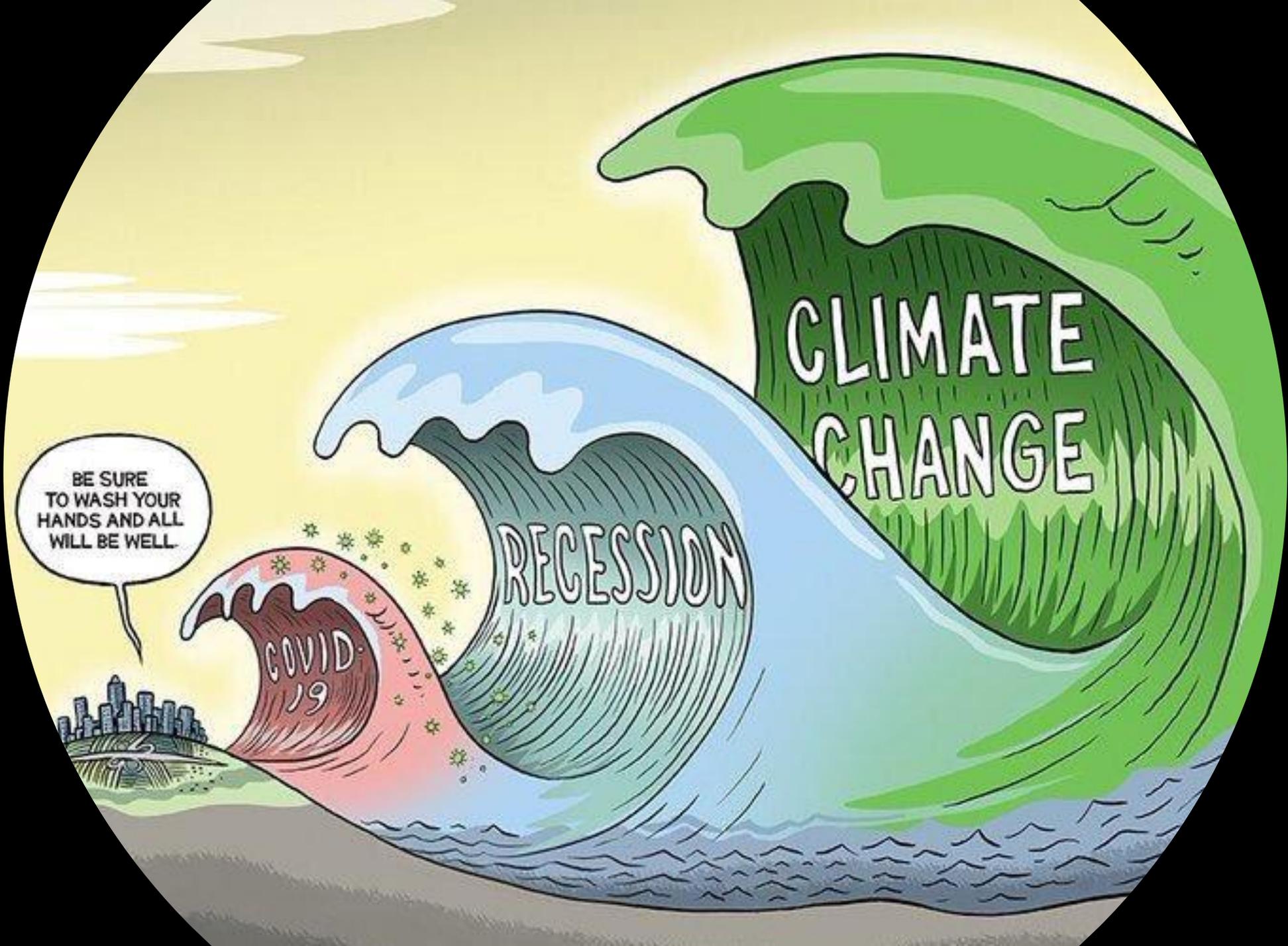
BE SURE
TO WASH YOUR
HANDS AND ALL
WILL BE WELL.



COVID-
19

RECESSION



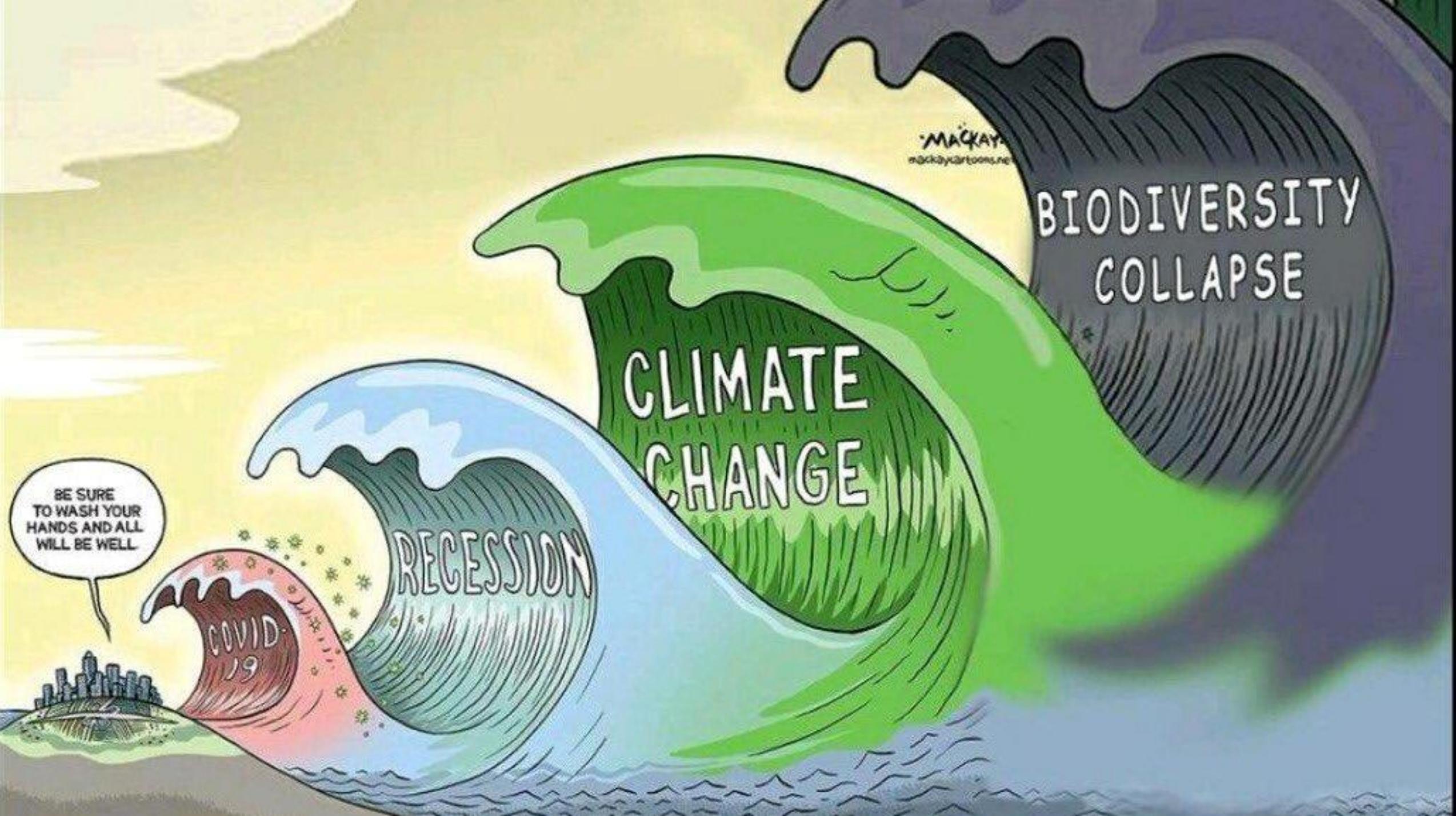


BE SURE
TO WASH YOUR
HANDS AND ALL
WILL BE WELL.

COVID-
19

RECESSION

CLIMATE
CHANGE



BE SURE
TO WASH YOUR
HANDS AND ALL
WILL BE WELL

COVID-
19

RECESSION

CLIMATE
CHANGE

BIODIVERSITY
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