Lyn's Intro

- It's an important time to think about what comes next.
- We need an action plan. Without citizen engagement that's not going to happen.
- Climate change is a solvable problem.

1. Paul Antze (Intro to COP)

- Rio Summit resulted in the United Nations Framework Convention on Climate Change (UNFCCC).
- It contained no emissions limits or legally-binding targets but was a way of laying out the rules.
- Rio established a formal set of procedures and annual meetings.
- Rio created a GHG inventory for all the countries and established a 1990 emissions baseline.
- The Kyoto Protocol (2005) resulted in the only legally binding treaty (binding limits on emissions and penalties).
- There was a distinction between annex 1 and annex 2 countries established a basis for common but differentiated responsibilities developed countries to take the lead and support developing countries, which would make what changes they could.
- There was some contention between countries, e.g. China and India, as it concerned the terms "developed" and "developing".
- Two problematic signatories the U.S. didn't ratify and Canada withdrew.
- 2009 Copenhagen accord countries decided that they must keep global temperature increase under 2°C.
- Since 1992, countries have met 22 times and have added almost as much CO_2 to the atmosphere as we had in the previous century.

2. Elizabeth May

- We must replace Canada's current Intended Nationally Determined Contribution (INDC), the weakest in the G7.
- Within 90 days of the end of COP21 we must establish more aggressive targets and timelines based on consultations with the provinces. We must be careful not to backslide.
- We must not forget how to be activists.
- We must focus on both the Liberal platform and the COP21 agreement actions and we must start right away (not 2020).
- The COP21 agreement must be signed on Earth Day in New York City, a month after the 90 day interval stipulated by Prime Minister Trudeau comes to an end.
- We must entirely remove coal from the electricity generation system by 2025. This includes fighting the Nova Scotia government's plan to open a coal mine.
- We must move more people onto public transit and attack the 30% of greenhouse gases being emitted from leaky buildings.
- It's going to take the efforts of all levels of government.
- Animal agriculture is no doubt a contributor (roughly 18% of global emissions) but it's not the biggest source. Fossil fuels contribute much more CO₂.
- Our focus needs to be on getting fossil fuels out of our energy system.
- National defence and international aviation CO₂ emissions were left out of the COP21 deal.
- We must maintain pressure on newly elected Liberal MPs to improve Canada's INDCs and timelines.

3. Joy Kennedy

- It's important to understand the context of COP21 in Paris. The atmosphere was charged due to the attacks in November, however everyone was welcoming.
- People were saying "we can't have fear" and that message was passed along to COP21 delegates (don't fear changing direction on the climate).
- Led by Yeb Saño, the People's Pilgrimage lead people on foot from Rome to Paris.
- The Pope and Ban Ki Moon contributed their shoes to the collection at La Place de la Republique in support of hundreds of climate change marches taking place around the world.
- The Executive Secretary of the UNFCCC, Christiana Figueres, was presented with petitions from religious leaders.
- Demands were known as "red lines".
- Former United Nations High Commissioner for Human Rights Mary Robinson and Inuit Tapiriit Kanatami president Natan Obed exchanged thoughts on human and indigenous rights.
- Language on indigenous rights made it into the preamble of the agreement. It was one of the hardest fought battles of the conference.
- Many indigenous leaders were present, including numerous voices from the Arctic.
- It's important to work with Climate Action Network. It's where we make broadest connections.
- The Pope advocated divesting from fossil fuels.
- Religious communities have both a moral voice and funding. They can cause change.
- The fossil fuel divestment movement continues to grow.

4. Alice Xia Zhu

- Attended COP21 with 5 other students from the University of Toronto.
- Alice focused on the INDCs and the emissions gap.
- According to the agreement, countries must improve their emissions targets every 5 years.
- Received updates from ministers and chief negotiator.
- The 1.5°C temperature rise cap was promoted by Canada.
- Youth delegates gathered to chant and sing. The atmosphere was very positive.
- Everyone committed to go back home and to organize.
- There's a lot to do ... we can't wait any longer.

5. Ben Donato-Woodger

- We were asking for a just transition to renewable energy and recognition of indigenous rights.
- A formal event took place in an airplane hangar and in a racially diverse community that was subjected to a lot of policing.
- Conference delegates kept asking our group for selfies (with young people) but things got complicated when we asked for meetings in return.
- Liberals wanted to look different and are responsive compared to the previous federal administration.
- After protesting, the Canadian government agreed to meet with us.
- The Liberals are new in office and don't want to aggravate fossil fuel industry.
- Indigenous rights were included in the preamble, but not the text of the agreement.
- The Canadian delegation fought to get indigenous rights included in the body of the text.
- Not all environmental groups supported indigenous rights.

- Our group was disappointed by Canada's position regarding loss and damage.
- The U.S. tried to keep the agreement from being legally binding and Canada backed them.
- Financial transfers could be guaranteed if we were to give up on the UNFCCC process.
- Aid commitments matter when it comes to international negotiations, more so than other issues that can be addressed at home.
- The Liberal government has separate aid commitments but like to put word "climate" on earlier promised aid money. It's hard to tell if they're promising new money.

6. Paul Beckwith

- Water off the eastern seaboard is now extremely warm (8°C above normal).
- Low pressure areas draw warm air from the south like a firehose of warm water vapour heads north.
- Warm air meeting with cold arctic air led to the massive snowstorm affecting the U.S. east coast recently.
- We must look at the cost of major storms. They are becoming a regular pattern.
- The Jetstream has become very wavy. It depends on the temperature difference between the arctic and the equator.
- Current destructive patterns will get worse.
- Delegates talked a lot about these issues in Lima and Paris
- There were many press conferences, discussions with key people about the arctic and other issues.
- Negotiators typically didn't talk about arctic.
- INDCs must be respected and implemented.
- The agreement is intended to enter into force in 2020 but it needs to be implemented immediately.
- Canada so far is using the former Conservative government's emissions target as a floor.
- See Paul's website, paulbeckwith.net.
- James Hansen talks about CCL and supports carbon fee and dividend.
- Those who have lowest incomes will gain the most and heavy fossil fuel users will pay the most under a carbon fee and dividend system.
- CO₂ is long lived in the atmosphere but we must also be concerned with methane and nitrosoxide as they are just as important.
- Methane levels started rising in arctic regions in 2007. Methane has been bubbling up in the Siberian ice shelf.
- Canada does not currently measure methane emissions.
- Deforestation is having a big impact. Forests act as carbon sinks.
- Forest fires are more prevalent due to drier conditions.
- Indonesia has burned its forests to make room for palm oil production. Fires don't extinguish because of the depth of peat. Emissions from this source are greater than those of the U.S.
- Deforestation rates in Canada's boreal regions are higher than anywhere else in the world.
- Soil has enormous potential for storing CO₂. The blacker the soil, the more fertile it is and the more CO₂ it contains.
- If we could increase the carbon content of soil would draw out tremendous amounts of CO2.
- Degrowth people need to look at limiting family size to 2 children.
- We can't continue to have population growth but no one wants to talk about it.

7. Jim Baxter

- The city of Toronto went to Paris but didn't attend COP21.
- Toronto didn't have accreditation to attend the conference but used the opportunity to have meetings regarding the C40 Cities Climate Leadership Group.
- Toronto was nominated amongst C40 cities for having created the Atmospheric Fund 25 years ago.
- Subnational governments convened. People knew that Toronto had accomplished little under the previous municipal government.
- Toronto was sought out by other cities for informal gatherings to find out how much progress the city was making.
- Nations are made up of cities.
- 70% of world population will live in cities by 2025. Cities are therefore an important part of the climate change equation.
- Toronto is aware of the urgency, the science is irrefutable. It's time to act.
- City council has approved an 80% emissions reduction target based on 1990 figures by 2050.
- Toronto's electricity consumption was flat between 2010 and 2014 despite population growth.
- The province has phased out coal. Prior to the phase out Toronto experienced as many as 50 smog days per year. Now they are almost non-existent.
- Solid waste management now captures methane and burns it to produce energy.
- Toronto has reduced yearly emissions by 5 million tonnes, but needs to achieve a further reduction of 5 million tonnes. There are no more magic bullets, we need transformative options.
- Toronto has undergone enormous growth in the core more high-rise construction than most American cities.
- People living downtown aren't buying cars and there is some infrastructure to accommodate bike lines.
- The sharing economy in full-swing, e.g. auto sharing and Uber.
- Glass walls and windows are largely thermal holes. The standard is the Ontario building code and Toronto's green standard tier 1 and tier 2. Some building are constructing according to LEED standards.

8. Willi Nolan

- Outside official negotiations, people were looking to implement solutions. They wanted to be heard.
- Decision makers are often completely unaware of crushing human conditions that impact some people.
- There's a new focus on the threat of deep water oil and gas exploration.
- There were barriers in Paris which kept the youth from being heard.
- Let the youth talk or you are going to encounter resistance.
- We need to be real about what we're doing.
- Willi wanted to be useful upon her return from Paris e.g. she applied for a licence to grow agricultural hemp, a good solution for production and jobs.
- Ongoing protection campaign in New Brunswick with different communities Indigenous, English, French and newcomer settlers.
- There is a lot of interest in public budget talks launched by the new New Brunswick government.
- Attended anti-fracking summit while in Paris.
- People knew the New Brunswick is ground zero in the fight against fracking.

9. Jose Etcheverry

- We need to develop a common language regarding energy and sustainability.
- Internal combustion engines are a big problem. We need transportation solutions that don't involve the burning of fossil fuels.
- Nuclear energy is another problem masquerading as a solution.
- Markham is an example of a community where buildings have a lower ecological footprint.
- Do not use fossil fuels put solar panels on roofs, use more horizontal designs solar systems offset energy use but buildings are also cooled and heated with geothermal pumps.
- High efficiency walls and windows now made in Ontario.
- Green energy solutions create local jobs.
- Centralized solar farms not as good as micro-projects on people's roofs. Much energy is lost in the transmission process.
- We need literacy programs to educate people on energy efficiency and reducing greenhouse gases.
- Ontario needs to institute a cap and trade system and to invest in energy efficiency, e.g., eco homes, Residential Energy Management and community energy systems.
- Oxford County has committed to 100% renewable energy.
- Nuclear power is reckless. Pickering should have been shut down in 2014 but will now remain open until 2025.
- Shutting down Pickering would make resources available for renewable investment.
- A Calgary transit system tram line is now powered by renewable energy. Why doesn't the TTC invest in solar farms?

10. Paul Antze

- Measures coming from COP21 are directed related to emissions. Other means of reducing the atmosphere's CO₂ content is to consider storage.
- Regenerative farming might be another approach to reducing GHGs.
- Agriculture's share of global emissions is part of problem.
- Organic farming that includes cover crops, residue mulching, composting, crop rotation and most importantly conservation tillage (you never till ground because you always maintain a cover crop).
- There are forms of farming that involve rotation of pastures which mimic the movement of animals over large areas.
- We could sequester more than 100% of current CO₂ emissions in the soil.
- The government of France has taken an interest in this. It was a side event at COP21 along with the Peruvian government. Canada did not sign on.
- This doesn't reduce the need for other initiatives to reduce emissions as soil can only hold so much carbon.
- Soils are currently depleted but as carbon content increases we will approach a saturation level.