Before the Flood

Leo DiCaprio – Father was an underground comic distributor
Picture over the bed as a kid - “The Garden of Earthly Delights’ by Hieronymus Bosch.”
Garden of Eden – 1st panel – birds, elephants, giraffes, religious icons
Deadly Sins – overpopulation, debauchery, excess
Paradise lost – nightmarish – Paradise degraded and destroyed

Leo – United Nations Messenger of Peace
Climate Change coming so much faster than before – We are on a boat sinking
Inundated with change – pessimistic (may have picked the wrong guy)
Critics of Leo because he is not a scientist (neither are they)
Interested since he was young on extinct species – explorers would wipe out entire species
We are knowingly doing this on a much larger scale

Economy is based on fossil fuels – Oil, Coal, Natural Gas – Moving to more risky energy
Tar Sands in Canada – Show clear cutting in Canada – No such thing as fossil fuel
Show devastating destruction to the area – compared to Mordor in the Lord of the Rings
Removed Boreal forest for Tar Sands – Wash oil out of sand

Talked to Al Gore – Explained global warming from the inconvenient truth – first time he heard of global warming – most important issue of our time – everything we do releases CO2 and leads to climate change

Baffin Island in Artic – Dr. Eric Sala

Jake Awa – Artic Guide – hunter
Ice decreasing – use to be Blue but now light blue like ice cream – melts faster
i. No ice left over the Artic (north pole) by 2040
ii. Area is transforming – Acts as air conditioner for the world
iii. 10,000 – 12,000 Narwhales here waiting for ice to melt

2000 Earth Day

Talked to President Clinton – focused on small individuals actions
Change light bulbs
Long past that now

Professor Jason Box

Greenland Ice Sheets
i. Moulin – snow water to the sea – if not balanced, sheet gets smaller, sea levels rise
ii. Showed monitoring equipment (climate station) – broken down pool equipment
iii. Hosing was 30 ft, lost that amount of ice in the last 5 years in Greenland
Mayor of Miami says Miami is flooding
   Raising roads and electric pumps - Buy them 40-50 years
   400 million dollar project – paid by taxes in Florida

Politicians stop talk on climate change - Governor or Senator
   Opposition to climate change - politics
   Need to divide the public – funded by the Koch brothers

Prof Michael E Mann – Penn State
   97% of scientist believe it is warming
   Science and Math Geek
   Physics
   Curve – cooling trend and abrupt warming – hockey stick

Vilified on the news
   Death threats against him and the family
   Attacked by Congressman – FBI investigated threats

Fossil fuel interests…finance a very large echo chamber of climate change denialism. They find people with very impressive looking credentials who are willing to sell those credentials to fossil fuel interests. Front groups funded by corporate interests.

Koch’s industry is one of the largest Oil companies in the world
Sen. James Inhofe – Largest recipient of Fossil fuel money
   Controls climate and any changes in these bills
   Doing so for short-term profit

We have known about global warming for decades – show clips from the 50’s
   What if we had taken it serious back then?
   Population has increased by 5 billion

China is now the number one polluter
   China is the factory of the world – Manufacturing for the Western countries
   Much of that pollution is dumped in their backyard
   Coal in Beijing is = to the U.S.
   People in China are worried about their health
   People want to be part of the solution – mass demonstrations
   Hold the companies responsible
   National pollution map data base – 9000 facilities
   Not in compliance = can check on their cell phone
   Media talk about the violations on a daily basis

China is now working hard on green technology
   Wind and solar – priority rather than coal
   If china can do it, the rest of the world should be able to do it also
Dr Sunita Narain = Center for Science and Environment

New Delhi, India – 3rd largest polluter – trying to bring people out of poverty

i. 300 million people without electricity
ii. 30% of houses have no access to electricity
iii. Vast reservoir of coal – it is cheap
iv. 700 million households use biomass to cook

Why has U.S. not moved to Solar?

Electricity consumed by one American at home is equivalent to 1.5 citizens of France, 2.2 citizens of Japan and 10 citizens of China, 34 of India and 61 of Nigeria. Why? Because you’re building bigger, you’re building more and using much more than before. The fact is we need to put the issue of lifestyle and consumption at the center of climate negotiations.

Building bigger, using more, - lifestyle need to be part of the equation
Leo says it isn’t going to happen

China and India investing more than U.S.
Leadership is important – Why not in the U.S.?

½ of the yearly rainfall in 5 hours – flooded crops – poor are the ones that are impacted first
U.S. – Biggest user of fossil fuels in the world – What is the right thing to do?
If we are going to solve this problem, we all have a responsibility to set an example. And, more than that, help the developing world to transition before it’s too late.”

Abiang Kiribati – Islands will be under water – abandoned some islands
Long term strategy – bought land in Fiji
Migration with dignity

Leo views dead coral with marine biologist Jeremy Jackson. (“We’re pushing this system really hard.”)
Leo flies over Sumatran forests being cleared by palm oil plantations with HAKA’s Farwiza Farhan. (– One of only three tropical forests left being destroyed for Palm oil (cheap vegetable oil)
He feeds baby orangutans at a rescue center in the Mount Leuser National Park with Dr Ian Singleton. (“They are refugees from the burning forest.”) – destroying an area where there is rhinos, tigers, orangs left in one area
Palm oil is in almost everything we buy

Prof Gidon Eshel - environmental science and physics at Bard College in New York

Of all the reasons for tropical deforestation, the foremost is beef. Beef is one of the most inefficient use of resources on the planet. In the US, 47% of land is used for food production and, of that, the lion’s share is just to grow feed for cattle. The things that we actually eat – fruit, vegetables, nuts – it’s a per cent. Most importantly, cows produce methane. And methane is a powerful greenhouse gas…About 10-12% of total US emissions is due to beef. It’s staggering…Maybe not everyone is ready to eat tofu 24/7. I get that. But even if you just have to have some flesh between your teeth, if you switch to chicken, you will have eliminated 80% of what you emit, depending on where you are coming from.”
Elon Musk - Tesla

“Every single light that you see has to be completely different – has to come from a new power source. We need to build all those things differently. All the cars that are on the road need to be different. This is one city. If you zoom out to a map of the world at night, you see electrification all over the world. And we’re fighting powerful fossil fuel interests who basically want to keep doing business as usual. How do we turn this around?

Next Leo is in the Nevadan desert visiting the “gigafactory”, the latest project of Tesla founder Elon Musk. Once at full operation by 2020, the vast factory aims to be producing annually 500,000 electric vehicles and batteries/cells equal to 85 GWh/yr. Musk explains why this could be a game-changer:

What would it take to transition the whole world to sustainable energy? What kind of throughput would you actually need? You need a hundred gigafactories to power the world

If all the big companies do this then we can accelerate the transition and if governments can set the rules in favor of sustainable energy, then we can get there really quickly. But it’s really fundamental: unless they put a price on carbon…a carbon tax.

Gregory Mankiw, a Harvard economics professor, who has long argued for a carbon tax. A republican that is arguing for a tax on any activity that puts Carbon in the air. Tax bad activities – like cigarettes

Forces people to do the right thing – Raise carbon tax and lower payroll tax. Not an increase, it is a tax shif

Politicians are elected “followers” – they will do what we ask them to do

John Kerry – Paris Climate Summit

U.S. and China stood up and said they would change
Fights over water, no place to live, happening today
Need to leave this planet in better shape than we were given it

Earth League

On average – we are heading to a 4 degree warming
If we don’t take action, we will lose coral reefs
We will have heat waves, agriculture will collapse
Earth will take over and continue to warm – hit a tipping point
Greenland begins to heat the planet – no ice – releases methane from ice
Paris summit – the window is still open to stabilize this
Wind and Solar – can reach 100% of our needs
195 countries saying they will do what they can to make this change
No enforcement rules – no penalties

President Obama –

Paris agreement is the architecture in place
Agreement is not enough – we need to continue to move forward
New president doesn’t believe in climate science, can it stop the advancement
Leo says the president is optimistic
President’s fear is that if sea levels rise, people migrate
National security issue – fight for resources
**NASA – Dr. Piers Sellers**

Thin atmosphere – keeping us safe  
Pancreatic Cancer – odds are he will die soon  
Motivated him to contribute  
  Model simulation of the world  
  Satellites looking at the earth  
  See poles melting  
  Gulf Stream changing  
    Stops the transport of heat  
    Europe would get colder  
  Moving of the precipitation belt  
  More drought in hot areas  
  Driving wars in these areas – shortage of food and water  

Facts are crystal clear  
Here’s the problem, Let’s fix it  
If we do the right thing, it will repair itself over time  
Faith in people – Once it is appreciated, people will rise up and deal with it.

**The Pope – Pope Frances**

Our common home has fallen into disrepair – we can always fix our problems  
Signs of things reaching a breaking point  
Spiritual leader asking the leaders to take action against climate change  
  Never been done before  
He believes we need to immediately take action – Pray for the human race

**Ending**

We are now living in the second panel – before the flood  
Question is: can we change our course in time – not reach the third panel  
All we can do is control what we do next?  
  We need to tell our leaders that we know the truth about climate change