
METHANE EMISSIONS
FROM WETLANDS
AROUND THE GLOBE

1
00:00:05,690 --> 00:00:02,770
[Music]

2
00:00:07,070 --> 00:00:05,700
methane like carbon dioxide is an

3
00:00:09,230 --> 00:00:07,080
important greenhouse gas that's

4
00:00:11,270 --> 00:00:09,240
contributed to about one-third of global

5
00:00:13,490 --> 00:00:11,280
warming

6
00:00:16,189 --> 00:00:13,500
in recent years atmospheric methane

7
00:00:18,590 --> 00:00:16,199
levels have reached record highs

8
00:00:20,450 --> 00:00:18,600
while fossil fuels Agriculture and

9
00:00:23,150 --> 00:00:20,460
landfills make up a large percentage of

10
00:00:24,950 --> 00:00:23,160
human cost sources about one-third of

11
00:00:27,710 --> 00:00:24,960
methane emissions actually comes from

12
00:00:29,810 --> 00:00:27,720
wetlands what you're seeing here is a

13
00:00:31,189 --> 00:00:29,820

visualized data set of wetland methane

14
00:00:33,470 --> 00:00:31,199
emissions from around the globe

15
00:00:35,510 --> 00:00:33,480
throughout the last several decades

16
00:00:37,130 --> 00:00:35,520
these highlighted regions are of

17
00:00:39,049 --> 00:00:37,140
particular interest because of their

18
00:00:40,910 --> 00:00:39,059
concentrated Wetland methane sources

19
00:00:42,470 --> 00:00:40,920
which scientists are working to better

20
00:00:45,229 --> 00:00:42,480
understand

21
00:00:47,690 --> 00:00:45,239
Wetlands Act is both a source and sink

22
00:00:50,090 --> 00:00:47,700
for greenhouse gases which means they

23
00:00:52,069 --> 00:00:50,100
both release and store them

24
00:00:54,170 --> 00:00:52,079
Wetland habitats are filled with things

25
00:00:56,330 --> 00:00:54,180
like waterlogged soils and permafrost

26
00:00:58,850 --> 00:00:56,340
which is what makes them sizable carbon

27
00:01:01,310 --> 00:00:58,860
sinks but as a warming climate causes

28
00:01:04,509 --> 00:01:01,320
Wetland soils to warm or flood carbon is

29
00:01:06,770 --> 00:01:04,519
released into the atmosphere as methane

30
00:01:08,990 --> 00:01:06,780
methane is produced when there's a lack

31
00:01:11,810 --> 00:01:09,000
of oxygen available for tiny carbon

32
00:01:14,149 --> 00:01:11,820
digesting microbes that live in the soil

33
00:01:16,609 --> 00:01:14,159
so in Wetlands where flooded soils are

34
00:01:18,170 --> 00:01:16,619
deprived of oxygen those microbes that

35
00:01:21,590 --> 00:01:18,180
would have otherwise produced carbon

36
00:01:23,929 --> 00:01:21,600
dioxide instead produce methane

37
00:01:25,910 --> 00:01:23,939
Nasa uses remote sensing to monitor

38
00:01:27,590 --> 00:01:25,920

methane emissions from Wetlands through

39
00:01:29,330 --> 00:01:27,600
instruments like emit aboard the

40
00:01:32,210 --> 00:01:29,340
International Space Station airplane

41
00:01:33,950 --> 00:01:32,220
mounted instruments like avarice NG and

42
00:01:36,249 --> 00:01:33,960
satellites like landsat and Europe

43
00:01:38,810 --> 00:01:36,259
Sentinel 5p

44
00:01:40,670 --> 00:01:38,820
locating and measuring the sources of

45
00:01:42,770 --> 00:01:40,680
atmospheric methane is key to