08:02
good morning ladies and gentlemen and
08:04
given that we have reporters joining
08:06
from virtually all time zones i should
08:08
also add good afternoon and good evening
08:11
welcome to this press conference by the
08:12
intergovernmental panel on climate
08:14
change my name is andre mahertich and
08:17
i'm the head of the ipcc communications
08:20
and i will be moderating today's press
08:21
conference
08:22
today we are releasing the latest ipcc
08:26
report on climate change impacts
08:28
adaptation and vulnerability
08:31
we will be also presenting the
08:33
scientific findings related to it
08:35
we have several distinguished speakers
08:37
today
08:38
their brief statements will be followed

08:40
by the official presentation of the
08:42
report
08:43
I'll start just with a few words about
08:45
the running of the press conference
08:47
the instructions on how to submit
08:50
questions have already been shared with
08:52
the ipcc accredited media yesterday and
08:54
again this morning
08:56
when submitting your questions please do
08:59
indicate your name your media
09:01
organization and to whom your question
09:04
is directed to
09:05
we will try to accommodate as many
09:07
questions as possible but due to high
09:10
level of media interest we may simply
09:12
not be able to address them all we are
09:14
scheduled to wrap up this press
09:15
conference by 1 30 pm central european

09:18
time
09:19
i am pleased now to welcome the
09:21
secretary of the intergovernmental panel
09:23
on climate change mr abdullah moxit who
09:26
will introduce today's speakers
09:30
thank you all
09:31
for joining us today
09:33
for the release of this important
09:35
reports
09:36
this ipcc report on impacts
09:39
adaptation and vulnerability to climate
09:42
change follows
09:44
the report on the physical science basis
09:47
we launched in august 2021
09:51
it also comes before the two last
09:55
reports
09:56
which we expect this year
10:00
with this report we will conclude the

10:03
sixth assessment report of the ipcc the
10:06
most intense in the history of ipcc
10:10
we are successfully
10:12
comp we have successfully completed
10:15
the second ever
10:17
ipcc virtual approval session and i wish
10:22
to express my deep appreciation
10:26
to the scientists working on voluntary
10:28
basis the government's
10:31
organization and everyone else who
10:34
contributed to this report
10:37
the ipcc is a unique interface
10:41
between policy and science
10:44
and that's makes
10:46
it this is that's what makes
10:49
our reports the most credible
10:52
resource on climate change for decision
10:55
makers at all levels

10:59
I am incredibly
11:01
honored to welcome and introduce our
11:04
distinguished guest speakers
11:06
first
11:07
we will see the video message from the
11:10
united nation secretary general antonio
11:13
goteris
11:15
today we will also hear from our chair
11:18
the ipcc chair
11:20
pro professor josoli
11:23
and
11:25
the two head of our parent organizations
11:29
the world meteorological organization
11:32
secret original professor peter dallas
11:35
and
11:36
the united environment program executive
11:38
director dr inger
11:40
anderson we we also have to the two

11:44
co-chairs who led the production of the
11:47
reports dr debra roberts and dr
11:52
hans auto partner
11:53
we will now see the video message from
11:56
the united nations secretary general
11:59
antonio guterres
12:05
dear representatives of the media i've
12:07
seen many scientific reports in my time
12:10
but nothing like these
12:12
today's ipcc report is an atlas of human
12:15
suffering
12:16
and the damning indictment of failed
12:18
climate leadership
12:20
with fact upon fact this report reveals
12:23
how people on the planet are getting
12:25
clobbered by climate change
12:27
nearly half of humanity is living in the
12:30
danger zone now

12:32
many ecosystems are at the point of no
12:34
return now and checked carbon pollution
12:36
is forcing the world's most vulnerable
12:38
on a frog march to destruction now
12:41
the facts are undeniable
12:43
this abdication of leadership is
12:46
criminal
12:47
the world's biggest polluters are guilty
12:49
of arson on our only home
12:52
it is essentially to meet the goal of
12:54
limiting global temperature rise to 1.5
12:56
degrees
12:57
and science tells us that will require
12:59
the world to cut emissions by 45 by 2030
13:03
and achieve net zero emissions of
13:05
greenhouse gases by 2050
13:08
but according to current commitments
13:11
global emissions are set to increase

13:13
almost 14 percent over the current
13:16
decade
13:17
that spells catastrophe it will destroy
13:20
any chance of keeping 1.5 alive
13:23
today's report underscores two core
13:26
truths
13:27
first coal and other fossil fuels are
13:30
choking humanity
13:32
all g20 governments have agreed to stop
13:33
funding coal abroad
13:35
they must now urgently do the same at
13:37
home and dismantle their coal fleets
13:40
those in the private sector still
13:42
financing coal must be held to account
13:45
oil and gas giants and their
13:46
underwriters are also on notice
13:49
you cannot claim to be green while your
13:51
plans and projects undermine the 2015

13:53
net zero target
13:55
and ignore the major emission cuts that
13:57
must occur this decade
14:00
people see through the smoke screen
14:02
oecd countries must phase out coal by
14:05
2030 and all others by 2040.
14:08
the present global energy mix is broken
14:12
as current events make all too clear our
14:15
continued reliance on fossil fuels makes
14:17
the global economy and energy security
14:19
vulnerable to geopolitical shocks and
14:21
crises
14:23
instead of slowing down the
14:24
decarbonization of the global economy
14:26
now is the time to accelerate the energy
14:28
transition to a renewable energy future
14:32
fossil fuels are a dead end
14:34
for our planet

14:36
for humanity and yes for economies
14:39
a prompt well-managed transition to
14:41
renewables is the only best pathway to
14:43
energy security universal access and the
14:46
green jobs our world needs
14:48
I'm calling for developed countries
14:50
multilateral development banks private
14:52
finances and others to form coalitions
14:55
to help measure emerging economies and
14:58
the use of coal
14:59
these targeted mechanisms of support
15:01
would be over and above existing
15:03
sustainable development needs
15:05
the second core finding from this report
15:08
is slightly better news
15:10
investments in adaptation work
15:13
adaptation saves lives
15:15
as climate impacts worsen and they will

15:18
scaling up investments will be essential
15:20
for survival
15:22
adaptation and mitigation must be
15:24
pursued with equal force and urgency
15:27
that is why i've been pushing to get the
15:29
50 percent of all climate finance for
15:31
adaptation
15:32
the glasgow commitment on adaptation
15:34
funding
15:35
is not enough to meet the challenges
15:37
faced by nations on the front lines of
15:39
the climate crisis
15:41
i'm also pressing to remove the
15:43
obstacles that prevent small island
15:44
states and least developed countries
15:46
from getting the finance they
15:48
desperately need to save lives and
15:50
livelihoods

15:52
we need new eligibility systems to deal
15:54
with this new reality
15:56
delay means death
15:58
I take inspiration from all those on the
16:01
front lines of the climate battle
16:02
fighting back with solutions
16:05
all development banks multilateral
16:07
regional national know what needs to be
16:09
done
16:10
work with governments to design
16:12
pipelines of bankable adaptation
16:14
projects and help them find the funding
16:16
public and private
16:18
and every country must honor the glasgow
16:20
pledge to strengthen national climate
16:22
plans every year until they are aligned
16:25
with 1.5 degrees celsius
16:28
the g20 must lead the way our humanity

16:31
will pay an even more tragic price
16:33
i know people everywhere are anxious and
16:37
angry
16:38
i am too
16:39
now is the time to turn rage into action
16:42
every fraction of the degree matters
16:44
every voice can make a difference and
16:45
every second counts thank you
16:56
following secretary general's message i
16:57
now invite the chair of the
16:59
intergovernmental panel on climate
17:00
change dr hora sung li to take the floor
17:06
thank you very much
17:08
distinguished representatives of the
17:10
media wmu secretary general terry unev
17:14
executive director anderson
17:16
we have just heard a powerful message
17:19
from the u.n secretary general antonio

17:22
guterres
17:23
the findings of the ipcc report we are
17:26
releasing today are clear
17:29
the stakes for our planet have never
17:32
been higher
17:33
last august the ipcc's working group one
17:37
report showed unequivocally that human
17:40
activities have warmed the climate at a
17:43
rate not seen in at least the past 2000
17:47
years
17:48
we are on course to reaching global
17:50
warming of 1.5 degree celsius within the
17:54
next two decades and temperature will
17:56
continue to rise unless the world takes
17:59
much bolder action
18:02
the working group 2 report we are
18:04
releasing today provides the latest
18:07
understanding of what does this warming

18:09
means for the people ecosystems and the
18:13
planet
18:14
the report is a warning about a dire
18:18
warning about the consequences of
18:20
inaction
18:21
it shows that climate change is a grave
18:24
and bounding threat
18:26
to our well-being and a healthy planet
18:30
it also shows that
18:32
our action today will shape how people
18:35
able to adapt to climate change and how
18:39
nature responds to increasing climate
18:42
risks
18:43
severe climate change impacts already
18:46
happening
18:48
vulnerable people those marginalized
18:50
socially and economically are the most
18:52
exposed to climate change impacts and

18:55
have the least resources to adapt
18:59
today we also deepen our understanding
19:02
of solutions to climate change and how
19:05
adaptation can help us lower risks and
19:08
reduce vulnerability
19:10
these solutions open new opportunities
19:13
for innovation in our societies and
19:17
economies
19:19
our collective and individual adaptation
19:21
can be an effective strategy but there
19:24
are limits to how much we and other
19:28
species can adapt
19:30
beyond certain temperatures adaptation
19:33
is no longer possible for some
19:37
our report is a blueprint for our future
19:41
on this planet
19:42
it recognizes the interdependence of
19:45
climate ecosystems and biodiversity and

19:49
people
19:50
it integrates natural ecological social
19:54
and economic sciences more strongly than
19:57
in earlier ipcc assessments
20:01
it provides new knowledge and
20:03
information at regional levels and
20:06
focuses on cities where the majority of
20:09
people live
20:11
and opportunities for adaptation and
20:13
mitigation arise
20:16
critically this report highlights the
20:18
importance of including and using
20:21
diverse forms of knowledge such as
20:23
indigenous and local knowledge
20:27
but most importantly it emphasizes the
20:31
urgency of immediate and more ambitious
20:34
action to address climate risks
20:38
half measures are no longer an action

20:42
thank you
20:45
thank you chair for these compelling
20:46
remarks i now invite the secretary
20:48
general of the world meteorological
20:50
organization peter itales to take the
20:52
floor
20:56
today we are releasing the second part
20:58
of the ipcc sixth assessment report wmo
21:02
is proud to be the co-hosting and
21:05
founding organization of ipcc
21:09
the physical science bases report was
21:11
published in august
21:13
today we are talking about already very
21:15
visible
21:16
impacts of climate change
21:19
the report says that climate sense
21:21
induced by us humans has caused
21:24
widespread negative impacts to nature

21:28
people
21:29
beyond natural climate variability
21:32
altogether 127 risks have been
21:35
identified covering very
21:37
wide range of
21:38
sectors
21:40
like health
21:41
agriculture
21:43
economy infrastructure and ecosystems
21:48
our atmosphere today is on steroids
21:51
doped with fossil fuels
21:54
this is already leading to stronger
21:56
longer and more frequent extreme weather
21:59
events
22:01
climate change induced disasters come
22:04
with high human and economic impacts
22:07
more than four four
22:08
in ten people in the world live in

22:11
contexts
22:12
highly vulnerable to climate change
22:15
global hotspots are found in parts of
22:18
africa
22:19
southern asia
22:20
small island developing states and
22:23
central and south
22:24
america in many of those countries
22:27
population growth
22:29
urbanization
22:30
and unsustainable development practices
22:33
are boosting the exposure of people and
22:36
ecosystems to climate change
22:39
but all countries are affected as we
22:41
have seen in germany united states and
22:45
canada
22:46
last year
22:48
it is essential to raise the ambition

22:50
level of climate mitigation
22:53
that would also have a positive impact
22:55
on air quality
22:56
and is vital to tackle the looming water
22:59
crisis and sea level rise
23:02
climate mitigation offers also great
23:04
business opportunities in many sectors
23:07
like energy
23:08
transport industry and nutrition
23:13
besides mitigation it is more and more
23:15
critical to pay attention to adaptation
23:18
since the negative trend in weather
23:19
extremes will anyhow continue for the
23:22
coming decades
23:23
and sea level rise for centuries due to
23:26
the record high concentration of carbon
23:29
dioxide
23:31
one of the powerful ways to adapt is to

23:33
invest in early warning services but the
23:36
basic weather and climate observing
23:37
networks
23:38
have severe gaps in africa and island
23:41
states
23:42
only half of the 193 members of wmo have
23:46
proper weather climate and hydrological
23:48
services this leads to higher human and
23:52
economic losses
23:54
thank you very much
23:57
thank you secretary general talas for
23:59
these important remarks i now invite
24:01
inge anderson
24:03
the executive director of unep united
24:06
nations environment program to take the
24:07
floor
24:09
thank you so much and to you professor
24:12
husang li to you petri my colleague

24:15
of course abdullah moxie secretary of
24:17
ipcc and to the co-chairs dr debra
24:20
roberts and dr hans otto portner
24:23
and to the my amazing and formidable
24:25
ipcc scientific community and friends
24:28
greetings from nairobi we are in the
24:31
midst of united nations environment
24:33
assembly
24:34
which
24:35
gathers here to look at environmental
24:38
issues and this report comes
24:40
at a time of great turmoil when we need
24:43
strong multilateralism to promote peace
24:45
and healthy environment and the message
24:47
this report sends is clear
24:49
climate change isn't lurking around the
24:51
corner waiting to pounce it's already
24:54
already upon us raining down blows on

24:57
billions of people
24:59
we're seeing dangerous disruption across
25:01
the natural world
25:03
species are migrating in such more
25:05
livable conditions
25:06
in climate risk hot spots deaths from
25:09
floods droughts or storms were 15 times
25:13
higher than those in more resilient
25:15
countries over the last decade
25:17
this is climate injustice particularly
25:21
for indigenous people and local
25:24
communities
25:25
and all of this and more at only 1.1
25:28
degrees celsius of global warming
25:30
even if we limit global warming to 1.5
25:33
degrees celsius the blows will come
25:36
harder and faster
25:38
as things stand we're heading to closer

25:40
to three degrees celsius we are in an
25:43
emergency heading for a disaster
25:47
we can't keep taking these hits and
25:50
treating the wounds
25:51
soon those wounds would be too deep too
25:54
catastrophic to heal
25:56
we need to soften and slow the blows by
26:00
cutting greenhouse gas emissions but we
26:02
also need to cushion the blows by
26:05
picking up our efforts to adapt to
26:07
climate change which have been too weak
26:10
for too long
26:11
the best way to do this is to let nature
26:14
do the job it spends millions of years
26:17
perfecting absorbing and channeling rain
26:20
water and surging waves maintaining
26:23
biodiversity and balance in the soils so
26:26
that diverse plants can grow providing

26:29
cooling shade under leafy canopies
26:33
we need large-scale ecosystem
26:35
restoration from ocean to mountaintop
26:38
including through agreeing to start
26:40
negotiations on the global plastic
26:42
pollution agreement here in nairobi at
26:45
the fifth united nations environment
26:47
assembly we need to bring nature into
26:50
baking hot cities to keep them cool we
26:53
need to conserve mangroves coral reefs
26:56
and other nature's defenses we need to
26:59
protect and restore wetlands for nature
27:02
and incorporate wetlands into our cities
27:06
backing nature
27:07
is the best way to adapt to and to slow
27:11
climate change while providing jobs and
27:14
boosting economies
27:16
we must start dedicating thought and

27:18
funding to transformational adaptation
27:21
programs with nature at their heart
27:24
humanity has spent centuries treating
27:27
nature like its worst enemy
27:30
the truth is
27:32
that nature can be our savior
27:35
but only if we save it first thank you
27:41
thank you director anderson for these
27:42
thoughtful remarks
27:44
i we will now hear the presentation of
27:47
the report's findings from the co-chairs
27:49
of the working group to
27:51
dr debra roberts and dr hans otto
27:53
pertner
27:58
thank you andre it's indeed a great
28:00
pleasure to welcome the global community
28:02
to the start of a really important
28:03

global conversation
28:05
where i and my fellow co-chair will
28:07
present the outcomes of five years of
28:10
hard work by the global scientific
28:11
community so welcome everyone
28:14
around the world
28:34
can we bring up the presentation please
28:39
firstly thank you to everyone for
28:41
joining us and certainly as the
28:42
co-chairs of working group 2
28:45
and on behalf of our authors we are very
28:47
proud to present this latest report from
28:50
the intergovernmental panel on climate
28:52
change which focuses on climate change
28:54
impacts adaptation and vulnerability
28:59
270 authors from 67 countries have
29:02
worked tirelessly to produce this report
29:05
over the last five years they have
29:07

assessed 34 000 scientific papers to
29:11
prepare their findings
29:13
during the review process they
29:15
considered each one of 62
29:17
418 comments
29:20
from experts and governments which have
29:22
helped make the report as comprehensive
29:24
and clear as possible
29:26
we would like to thank everyone who has
29:28
contributed to this process
29:31
let us now share some of the key
29:32
findings which reflect our growing
29:34
scientific knowledge and provide the
29:36
best understanding yet of climate change
29:39
impacts
29:40
risks
29:41
options to adapt and the limits we face
29:45
perhaps this statement best summarizes
29:47

our findings
29:49
the scientific evidence is unequivocal
29:53
climate change is a threat to human
29:55
well-being and the health of the planet
29:58
any further delay in concerted global
30:01
action will miss the brief
30:04
and rapidly closing window to secure a
30:07
livable future
30:09
this report offers solutions to the
30:11
world
30:12
and in the next 20 minutes we will
30:14
explore these with you
30:16
but let's start with the impacts
31:19
sorry for this technical glitch let's
31:21
start from the beginning
31:23
global warming from one of 1.51 degrees
31:26
celsius has caused dangerous and
31:29
widespread disruption in nature the
31:32

increased frequency intensity and
31:34
duration of extreme events on land and
31:37
in the ocean is driving mars mortalities
31:40
for example in trees as we show here in
31:43
this drought-stressed forest in
31:45
california
31:46
usa
31:47
and climate change is affecting the
31:50
lives and livelihoods of billions of
31:52
people
31:54
the impacts from human induced
31:56
intensification of tropical cyclones sea
31:59
level rise and heavy rainfall have
32:02
resulted in increased losses and damages
32:06
impacts are magnified in cities
32:09
where more than half the world's
32:11
population lives
32:12
heat waves amplify urban heat islands
32:15

and air pollution to affect people's
32:18
health
32:19
critical infrastructure such as
32:21
transport water sanitation and energy
32:24
systems have been compromised by extreme
32:28
events
32:28
[Music]
32:30
when multiple extreme events happen at
32:32
the same time they compound the overall
32:35
risk and are more difficult to manage
32:38
what we see here is an example of how
32:40
heat and drought combine to cause
32:42
reduction in crop yields
32:44
made worse by reduced productivity
32:46
because of heat stress amongst farm
32:48
workers
32:49
reduced yields lead to reductions in
32:51
household incomes
32:53

increased food prices locally and
32:55
potentially globally climate risks do
32:58
not respect national boundaries and
33:00
weather related extremes are creating
33:02
shocks to global trade
33:04
in the previous slide we illustrated the
33:06
powerful impacts of climate change on
33:08
nature and people's lives
33:11
in this assessment it is based on a new
33:14
understanding of these interconnections
33:16
we can no longer think in silos but have
33:19
to look across climate biodiversity and
33:22
human society and well-being if we want
33:24
to tackle the many global challenges we
33:26
face today
33:28
and talking of other challenges
33:30
climate change combines with
33:32
unsustainable use of natural resources
33:35

habitat destruction deforestation
33:38
and growing urbanization as well as in
33:40
equity and marginalization
33:43
these trends not only present threats to
33:46
ecosystems and the people who rely on
33:48
them but also reduce the capacities of
33:50
nature communities and individuals to
33:53
adapt to climate change
33:55
3.3 to 3.6 billion people live in global
33:59
hot spots of high vulnerability to
34:01
climate change
34:03
these are across large parts of africa
34:06
as well as south asia
34:08
central and south america
34:10
small islands and the arctic
34:13
in these global hot spots overlapping
34:15
challenges include limited access to
34:18
water
34:18

sanitation and health services
34:21
high levels of climate sensitive
34:23
livelihoods such as smallholder farmers
34:26
and fishing communities all increase
34:28
vulnerability
34:29
high levels of poverty weak leadership
34:32
lack of funding lack of accountability
34:35
and trust in government also play a part
34:40
looking to the future every small
34:42
increase in warming will result in
34:45
increased risks to nature and to people
34:47
in every region of the world
34:50
here we see a bleached coral colony on a
34:52
dying reef of okinawa japan
34:56
let's consider some of these projected
34:58
impacts on nature
35:01
this map gives an overview of
35:03
biodiversity loss at different warming
35:06

levels
35:08
we would see species extinctions and
35:10
losses of entire ecosystems such as
35:14
mountain tops tropical coral reefs and
35:16
coastal wetlands
35:18
even if we temporarily exceed 1.5
35:21
degrees warming for several decades
35:24
the risk of extinction in biodiversity
35:27
hotspots increases by about 10 fold as
35:31
warming rises from 1.5 to 3 degrees
35:35
celsius
35:37
nature services support all aspects of
35:40
our lives
35:42
from pollination and tourism to health
35:44
and climate regulation
35:47
loss of ecosystems and their services
35:50
has cascading and long-term impacts on
35:52
people globally
35:54

especially for indigenous peoples and
35:56
local communities who directly depend on
36:00
them
36:01
globally
36:02
population exposure due to heat waves
36:05
will continue to increase with
36:08
additional warming
36:09
at approximately 2 degrees celsius
36:12
regions that are highly dependent on
36:15
snowmelt could experience a 20 decline
36:18
in water availability for agriculture
36:21
beyond 2050
36:24
and we know that climate change will
36:27
undermine food security at 2 degrees
36:30
warming by 2050 people in sub-saharan
36:34
africa south asia
36:36
central and south america and on small
36:39
islands are likely to experience food
36:42

shortages
36:43
leading to malnutrition
36:46
about a billion people
36:48
living in low-lying cities and other
36:50
settlements on the coast are projected
36:53
to be at risk from sea level rise
36:56
and other climate hazards by mid-century
36:59
we provide a global perspective here but
37:02
this report
37:03
also has an extensive regional
37:07
we have outlined the challenges we face
37:10
and how they will increase at higher
37:13
warming levels
37:14
the key question now is how well are we
37:17
adapting to changing climate
37:20
what we show is that action has
37:23
increased but progress is uneven and we
37:26
are not adapting fast enough
37:29

growing public and political awareness
37:32
of climate impacts and risks has
37:34
resulted in at least
37:36
170
37:37
countries and many cities
37:40
including adaptation in their climate
37:42
policies and planning
37:45
however
37:46
there are increasing gaps between
37:48
adaptation action taken and what's
37:51
needed
37:53
these gaps are largest among lower
37:55
income populations
37:58
at the current rate of planning and
38:01
implementation
38:02
these adaptation gaps will continue to
38:05
grow
38:06
[Music]
38:07

let's now turn our attention to how we
38:09
adapt and in this report we show that
38:12
there are feasible effective options we
38:14
can take to reduce the risk to people in
38:16
nature but their effectiveness decreases
38:19
with increasing warming
38:21
when we think of adaptation our first
38:23
thoughts must be around reducing flood
38:25
risk or preventing water shortages
38:28
but what we show is that the
38:30
strengthening of health systems can
38:31
reduce the impacts of infectious
38:33
diseases
38:34
heat stress and other climate related
38:36
risks as well as the trauma associated
38:39
with extreme events
38:41
this is particularly effective if it's
38:43
combined with other measures such as
38:45

disease surveillance early warning
38:47
systems and improving access to potable
38:49
water
38:51
nature offers significant untapped
38:54
potential
38:55
not only to reduce climate risks and
38:57
deal with the causes of climate change
38:59
but also to improve people's lives and
39:01
livelihoods
39:02
agroforestry is a climate resilient way
39:05
of growing food and creating wildlife
39:07
habitat
39:08
here we see a nigerian rubber farmer
39:10
diversifying his business with food
39:12
crops fruit trees and bees
39:15
conservation protection and restoration
39:19
can help natural forests to adapt
39:22
planting a range of tree species
39:24

managing pests and diseases and reducing
39:27
wildfire risk can help build climate
39:29
resilience in managed forests
39:32
in agriculture irrigation can be
39:35
effective but it can also result in
39:37
adverse outcomes such as accelerated
39:39
depletion of groundwater
39:41
this and other adaptation measures
39:43
provide economic and ecological benefits
39:46
as well as reducing vulnerability
39:49
in urban areas and elsewhere effective
39:52
urban management can secure drinking
39:54
water
39:55
most action to date has occurred around
39:57
water related hazards such as reducing
39:59
the risk from floods and droughts
40:02
letting nature take its course such as
40:04
restoring wetlands and rivers and
40:06

creating no build zones can reduce flood
40:08
risks
40:09
the effectiveness of most water-related
40:11
adaptation declines with increasing
40:13
warming
40:16
food security can be enhanced by making
40:19
the food system more resilient for
40:22
example
40:23
through adopting stress tolerant crops
40:25
and livestock agroforestry and
40:27
diversification on farms
40:30
community-based adaptation
40:33
that is locally driven that respects
40:35
local and indigenous knowledge systems
40:38
and is adequately resourced can also be
40:41
effective
40:43
strengthening biodiversity can improve
40:45
pest control
40:47

pollination carbon storage and it can
40:50
provide shade
40:51
for temperature sensitive crops such as
40:54
coffee and cacao
40:56
this all brings a range of other
40:59
benefits for nutrition health and
41:01
well-being
41:02
and livelihoods
41:04
by 2050
41:06
urban areas could be home to two-thirds
41:09
of the world's population
41:11
cities also offer opportunities to
41:14
transform
41:16
using nature and engineering approaches
41:19
together is important
41:21
to manage flood risk for example it
41:24
might be important to install flood
41:26
proofing on buildings
41:28

improve drainage along roads and create
41:31
space for water within the city
41:34
at the same time as constructing flood
41:37
defenses
41:39
establishing
41:40
or restoring
41:42
green and blue spaces parks green
41:44
corridors ponds and wetlands as well as
41:48
urban agriculture can all be woven into
41:52
the built environment
41:54
social safety nets for disaster
41:57
management can help people overcome the
42:00
impacts of climate change and can
42:02
provide financial security
42:06
additional benefits
42:08
include public health improvements
42:10
especially from reducing heat stress and
42:13
ecosystem conservation
42:16

in informal settlements we show how
42:18
local knowledge adequate funding skills
42:21
and tools as well as policy makers and
42:24
residents working together can deliver
42:27
adaptation at a city scale
42:30
accountability transparency and
42:33
commitment from government is also most
42:36
important
42:38
here we see community sanitation
42:40
facilities being built and water tanks
42:43
being installed in informal settlements
42:46
in india
42:49
we have evidence of male adaptation
42:51
adaptation that results in unintended
42:54
consequences
42:55
for example increased climate
42:56
climate-related risks or increased
42:59
greenhouse gas emissions
43:01

in this photograph on the left are sea
43:03
defenses that may not be strong enough
43:04
to protect the people living behind them
43:07
people can be lulled into a false sense
43:09
of security
43:11
compare this to an example from delaware
43:13
in the usa of how it's possible to use
43:16
nature to provide flood protection
43:18
indigenous peoples ethnic minorities and
43:21
disadvantaged groups for example
43:23
low-income households and those living
43:25
in informal settlements are some of the
43:27
most affected by male adaptation
43:30
this reinforces and entrenches existing
43:33
inequalities
43:35
we know that there are adaptation limits
43:38
adaptation cannot prevent all losses and
43:41
damages
43:42

and even with effective adaptation
43:45
limits will be reached with higher
43:46
levels of warming
43:48
some natural solutions will no longer
43:50
work above 1.5 degrees celsius warming
43:54
above 1.5 degrees celsius a lack of
43:57
fresh water could mean that people
43:58
living on small islands and those
44:00
dependent on glaciers and snowmelt can
44:03
no longer adapt
44:04
and by 2 degrees celsius it may be
44:06
especially challenging
44:08
to farm multiple staple crops in many
44:11
current growing areas particularly in
44:13
tropical regions
44:15
if we focus on financial constraints we
44:18
see that current global financial flows
44:20
are insufficient
44:22

especially in developing countries
44:25
the overwhelming majority of global
44:27
tract climate finance was targeted at
44:30
emission reductions while a small
44:32
portion went on adaptation
44:35
climate impacts that result in higher
44:37
levels of losses and damages
44:39
also slow down economic growth and thus
44:42
reduce the availability of financial
44:44
resources
44:47
to avoid mounting losses urgent action
44:51
is required to adapt to climate change
44:54
but
44:55
that's not enough
44:57
at the same time it is essential to make
44:59
rapid deep cuts in greenhouse gas
45:02
emissions
45:03
to keep the maximum number of adaptation
45:06

options open
45:08
so how do we accelerate
45:11
and sustain adaptation
45:13
political commitment and follow through
45:16
across all levels of government is key
45:20
greater adaptation is present where
45:22
national climate laws and policies
45:26
require adaptation action from lower
45:28
levels of government and include
45:30
guidelines on how to do this
45:33
another area worth focusing on is
45:36
institutional frameworks with clear
45:38
goals and priorities
45:40
that define responsibilities
45:43
these frameworks can impose duties upon
45:46
governments to implement adaptation
45:48
actions
45:49
for example around conservation
45:52

sustainable use of beaches urban
45:54
development and targeting diseases
45:57
exacerbated by climate change
46:00
enhancing knowledge of impacts risks and
46:03
available adaptation options encourages
46:06
actions from society and policy makers
46:10
educational and information programs and
46:13
the arts can play a part
46:16
monitoring and evaluation is important
46:19
to track progress because in a warming
46:22
world at measures that are effective now
46:25
might not work in 20 years
46:28
adaptation strategies might have to be
46:31
revised constantly
46:33
revisions should be fact and data driven
46:38
and finally
46:39
inclusive governance
46:41
that prioritizes equity and justice is
46:44

also important
46:46
citizens civil society organizations
46:49
should participate directly in planning
46:52
and decision making
46:54
it's important to highlight that
46:56
adaptation measures offer wider benefits
47:00
if we consider
47:01
that 3.4 billion people living in rural
47:04
areas many of whom are highly vulnerable
47:07
to climate change
47:09
resilience can be improved by providing
47:11
social safety nets
47:13
improved roads reliable energy clean
47:16
water and improved food security
47:20
these measures not only build climate
47:22
resilience but they also go hand in hand
47:26
with helping to lift people out of
47:28
poverty
47:29

and achieving the united nations
47:31
sustainable development goal one
47:34
these other simple examples demonstrate
47:38
how different goals
47:39
may be achieved in a variety of
47:42
circumstances
47:45
in this report
47:47
we have looked at these synergies in
47:50
some depth
47:52
and this is how we illustrate the
47:54
multiple benefits of adaptation options
47:58
if you look at this figure you see
48:00
forest-based adaptation
48:03
it shows
48:04
that it is a feasible adaptation option
48:08
that will also help absorb and store
48:10
carbon
48:12
so it has mitigation potential
48:14

and it helps achieve multiple
48:17
sustainable development goals marked
48:19
here with a plus
48:21
likewise
48:24
if we look at options in our cities
48:26
we see that green infrastructure
48:29
green roofs parks and street trees play
48:32
a part in helping us adapt
48:35
by providing shade and water management
48:39
they also absorb and store carbon
48:42
again they help with multiple un goals
48:46
what we see here is the foundation
48:49
for a solutions framework that is an
48:51
important new concept in this report
48:56
let's explore this now
48:58
if we look at this figure
49:00
we see a spectrum of futures from a
49:03
world with low resilience and high risk
49:06

to one
49:07
with high resilience and low risk
49:11
this high resilience low risk future
49:14
and world has reduced climate risks
49:17
through adaptation
49:19
reduced greenhouse gas emissions through
49:21
mitigation
49:22
and enhanced biodiversity
49:25
these measures together
49:27
support sustainable development for
49:29
example no poverty
49:32
zero hunger good health and well-being
49:35
and access to clean water and sanitation
49:39
this concept is climate resilient
49:41
development
49:44
climate resilient development has to be
49:46
considered across government and all of
49:49
civil society it should involve everyone
49:52

round the table governments
49:55
citizens communities educational
49:57
institutions the media investors and
50:00
businesses forming partnerships
50:04
scientific indigenous and local
50:06
knowledge and practical know-how come
50:09
together to provide more relevant
50:11
effective options
50:13
ecosystem stewardship is key
50:16
a healthy planet is fundamental to
50:18
climate resilient development
50:21
effective and equitable conservation of
50:23
approximately 30 to 50 percent
50:26
of land fresh water systems and oceans
50:29
can help ensure a healthy planet
50:33
involving traditionally marginalized
50:35
groups including women
50:37
young people indigenous peoples local
50:39

communities and ethnic minorities
50:42
improves the prospects for effective
50:44
action
50:45
it is critical to prioritize equity and
50:48
justice in decision making and
50:50
investment
50:51
different interests values and
50:53
worldviews can be reconciled if everyone
50:56
works together
50:58
scaled-up investment and international
51:00
cooperation are also important
51:05
starting today every action every choice
51:09
and every decision matters
51:11
because each of them can take us away
51:13
from
51:14
or towards a climate resilient
51:16
sustainable world
51:18
worldwide action to achieve climate
51:20

resilient and sustainable development
51:23
is more urgent than previously assessed
51:28
climate resilient development is already
51:30
challenging at current global warming
51:33
levels
51:34
the prospects will be further limited if
51:37
global warming exceeds 1.5 degrees
51:40
celsius
51:41
and may not be possible in some regions
51:44
including small islands
51:46
deserts mountains and polar regions if
51:50
warming exceeds 2 degrees celsius
51:53
the science is clear
51:56
any further delay in concerted global
51:58
action will miss a brief
52:00
and rapidly closing window to secure a
52:03
livable future
52:05
this report offers solutions to the
52:08

world
52:09
this presentation
52:10
has given you a snapshot
52:12
of a wide range of topics that are
52:14
covered in depth in this report it's
52:18
over to you now
52:19
thank you
52:23
thank you dr roberts and dr partner for
52:24
the for your presentation
52:26
we will now turn to questions before we
52:28
do that just to note that in addition to
52:30
the summary for policy makers the
52:33
technical summary and full report we
52:36
also have several other resources
52:38
including a global to regional atlas we
52:41
have also extracted critical regional
52:43
information into a series of fact sheets
52:46
all these materials are available on the
52:48

ipcc website
52:50
to the questions now and for the first
52:53
one i will be looking for a brief
52:55
comments from both co-chairs it's from
52:57
seth bornstein
52:58
with the associated press
53:01
can you address the sense of gloom and
53:03
foreboding in the future painted here
53:06
how less livable a world do you see if
53:08
major emission cuts and adaptations
53:10
aren't made and how big a problem do you
53:13
see climate immigration and
53:15
climate-connected conflict in 2014
53:19
sorry in 2040 and in 2100
53:22
sorry in 2020 in 2100
53:29
dr roberts
53:31
thank you so much for that question i
53:33
would rephrase that i don't think the
53:35

report gives a sense of gloom
53:37
what it does do though is it gives a
53:39
very serious reality check about where
53:41
we are
53:42
where we might go to but also provides
53:45
us with the sense that we can be agents
53:47
for change
53:48
if we look at the challenges that we're
53:50
currently facing a lot of those can be
53:53
addressed by creating more equitable and
53:55
sustainable world by developing a new
53:57
social compact with the planet that we
54:00
live on and by focusing our attention
54:02
where we get most bang for the buck
54:04
protecting nature as has been previously
54:06
mentioned but also using the opportunity
54:09
to change the places where the majority
54:10
of people live in our cities
54:12

so i think that's the important message
54:14
to take forward a difficult reality but
54:17
action is possible and we need to do it
54:20
now
54:21
dr portner
54:26
your microphone adding to this thank you
54:28
thank you adding to this is
54:31
an important aspect that
54:33
the choice should not be gloom and doom
54:36
the options are clear and the choices
54:38
are clear so the world has
54:41
a limited time bond or available to move
54:44
on on the right track
54:47
and
54:48
this understanding needs to evolve among
54:51
policy makers and among society
54:54
and
54:54
i think the
54:56

what what this indicates that we see
54:58
currently an inertia in implementation
55:01
and that we currently see a large
55:03
implementation gap is that this comes
55:06
together with an education gap and an
55:09
information gap so the collaboration of
55:12
science and the media is important but
55:14
what is also important is to improve the
55:17
understanding of these basic rules of
55:20
how life best functions on our planet
55:24
and what is also important that there
55:26
are natural laws that we should not
55:29
break
55:30
and that should not be broken in similar
55:33
ways as we do not cross thread traffic
55:35
slides in in our cities
55:38
so this is
55:39
i think a point of orientation and our
55:42

report provides that orientation
55:46
by following these options it gives us
55:48
hope that the sustainable and climate
55:51
resilient world can be achieved
55:55
thank you very much the next question
55:57
is for
56:00
dr roberts the report paints a green
56:02
prospect for africa and small islands
56:04
developing states other alternative
56:06
solutions for short and long term
56:09
uh to alter direction from grim
56:11
opportunities
56:14
thank you so much for that question
56:16
indeed as i said before the report is a
56:19
real reality check and it's particularly
56:21
a reality check for the developing areas
56:24
of of the globe africa has called out
56:26
the small island states asia
56:29

central and south america but there are
56:31
also the prospects for dynamic change in
56:33
those areas if we see for example a
56:35
change in financial flows around the
56:38
world an investment in sustainable
56:40
development in these areas if we take
56:42
bold action in terms of emission
56:44
reduction then much can be done to
56:46
reduce the exposure and vulnerability of
56:49
areas such as the small island states
56:51
africa particularly where i come from
56:53
has an enormous opportunity in terms of
56:56
very rich
56:57
natural heritage to take that and use
57:00
that as an increased adaptive capacity
57:03
to deal with climate change both its
57:05
impacts but also the impacts that it has
57:09
across our economies across our
57:11

development options so i think while
57:13
these areas are threatened there is no
57:16
doubt that there is room for improvement
57:18
both in terms of global partnerships to
57:20
foster sustainable development but also
57:22
to use the enormous natural sources of
57:24
continents like africa as a way to
57:26
tackle the climate change challenge
57:30
thank you very much
57:32
question for both co-chairs if
57:34
increasingly this is from thomson
57:36
reuters
57:37
foundation if increasingly clear
57:39
warnings about the existential risks of
57:41
climate change are not driving anywhere
57:44
near sufficient action how do we drive
57:47
that needed action perhaps first to dr
57:50
portner and then to dr roberts quick
57:52

comments please things
57:54
well i'm afraid to say that increasing
57:57
climate change
57:58
and the associated impacts and and risks
58:01
and their implementation are certainly
58:04
an important motivation for the the
58:06
mobilization we need in society and in
58:10
policy
58:11
we have seen that with the release of
58:14
the 1.5 degree celsius report in 2018
58:19
which was bringing climate change close
58:22
to the individual on this planet and
58:25
this has started
58:27
a mobilization that i think
58:30
still needs to continue and still needs
58:32
to
58:33
be be strengthened
58:35
so calling out climate change as an ally
58:37

in that mobilization is certainly not a
58:40
good perspective we would rather like to
58:43
see the risks being reduced and those
58:46
impacts being avoided but climate change
58:49
already gives us strong examples of what
58:52
can happen if the if the climate system
58:55
is is brought out of the balance that it
58:57
has had for the last eight thousand
59:00
years during the time when human
59:02
civilization
59:04
was built
59:05
in in in that respect
59:07
making and bringing this close to the
59:10
thinking of policy makers and also of
59:13
society
59:14
is i think an important
59:17
task that will need to be fulfilled and
59:21
this the in-depth understanding will
59:24

mobilize the action and the resources
59:27
that are needed for this task
59:30
perhaps just building on that response i
59:33
think what is powerful about our working
59:35
group 2 report
59:37
is that we speak to the very places that
59:39
people live work and relax in we've got
59:42
a very strong regional focus
59:44
and i think that enables us to bring
59:46
messaging that increases the agency of
59:48
human society you will see that in this
59:51
report particularly we've got a very
59:52
strong focus on the issue of human
59:54
settlements urban areas rural
59:56
settlements and particularly in cities
59:58
where the majority of people live we
60:00
speak directly to the challenges that
60:02
cities are facing now the impacts on
60:04

infrastructure the increase in the heat
60:07
island effect and the challenges that
60:09
all of those pose to human health and
60:11
economic development but we also lay out
60:14
the solutions that may be available to
60:16
urban areas around the world to tackle
60:18
those challenges and i think it's by
60:21
providing that very clear line of sight
60:23
between where i live and the problems i
60:25
face to the kind of solutions i may be
60:28
involved in empowers people to take
60:30
action and i think we see that more and
60:32
more as the science becomes clearer and
60:34
relates more and more to people's lives
60:37
people mobilize more and so i'm still
60:39
optimistic about the ability to mobilize
60:41
extensively around this report and
60:44
create the kind of societal response
60:46

that we need to see
60:48
thank you very much to add to this once
60:50
more andre i'm sorry for interrupting
60:52
you
60:53
any short-term action and any compromise
60:55
with respect to to other sectors that
60:58
and compromises are an important part of
61:00
of the political thinking and action
61:03
should have the long-term implications
61:05
in mind
61:06
should consider the orientation for
61:08
example that our report
61:10
provides in in terms of what are the
61:13
implications for the long-term future if
61:15
things go wrong in in the short term and
61:18
this emphasizes the the thought about
61:21
the closing window of opportunity so
61:23
anything any decisions to be made during
61:26

this crucial decade in climate policy
61:29
are important for our long-term fate and
61:33
for the sustainability of life on this
61:35
planet thank you
61:37
thank you very much for that response
61:39
the next question is for the secretary
61:41
general of the world meteorological
61:43
organization
61:45
it is from thomson reuters foundation
61:47
the question is the report makes clear
61:49
that soft limits to adaptation are being
61:51
reached already including due to a lack
61:54
of finance despite the urgency
61:57
can this report finally shift the needle
61:59
in terms of spurring more adaptation
62:01
finance to the vulnerable and if so how
62:06
[Music]
62:08
thank you for that question uh
62:10

it's clear that we have to invest
62:13
more in adaptation
62:15
besides mitigation mitigation is of
62:17
course essential and we have to stop
62:19
this negative trend in in climate
62:22
and and that's that's very urgent as
62:25
as also this report because but besides
62:29
that we have to start investing in
62:30
adaptation because the negative trending
62:33
climate will continue
62:35
until 260s
62:37
independent of our success in climate
62:40
mitigation
62:41
and and working through one report which
62:43
was published
62:45
last august was demonstrating that that
62:48
the sea level rise and melting of the
62:49
glaciers
62:51

may continue for the coming hundreds of
62:53
years so that means that
62:55
that we have partly already lost the
62:57
battle and and we have to pay more
63:00
attention to how to media how to
63:02
mitigate
63:04
climate-related
63:05
risks and and this has to be taken into
63:08
account in
63:10
in various sectors in the society it's
63:13
going to affect
63:14
for security it's going to affect the
63:16
infrastructures it's going to
63:19
affect health and
63:20
and and it's going to hit also economies
63:24
very hard it was already demonstrated by
63:26
the
63:27
so-called stern report 15 years ago that
63:30

it's
63:32
it's
63:33
up to 20 times cheaper to
63:35
to to mitigate climate change than that
63:38
live with the consequences and now we
63:40
are we are already facing these
63:42
consequences and and they will become
63:45
stronger during the coming coming
63:47
decades anyhow and one powerful way to
63:50
adapt to climate change is to invest in
63:52
early warning services
63:54
which are in fairly poor shape in less
63:56
developed countries
63:58
and we have also major
64:00
gaps in the basic observing systems
64:02
especially in africa
64:04
caribbean pacific islands
64:07
which means that early warning services
64:10

the quality is poor there
64:12
and and we don't know where to adapt to
64:15
because we don't have the baseline so we
64:17
have to invest in both basic observing
64:20
systems and
64:21
early warning services and
64:23
take adaptation into account in many
64:26
sectors as this report is
64:28
is emphasizing
64:31
thank you very much for that response
64:33
the next question is for the chair of
64:35
the ipcc dr hua sungli as well as for dr
64:39
roberts
64:41
the question is it's from south china
64:43
morning post the question is the report
64:46
mentioned asia's risks and adaptation
64:48
options to climate change how do you
64:51
assess china's resistance to the risks
64:53

of water-related natural hazards energy
64:56
insecurity and asset losses as mentioned
64:59
in the report
65:07
ipcc there is an intergovernmental
65:10
panel on climate change issues and uh
65:14
we are not in the position of
65:16
commenting on specifically our member
65:19
government's policies and programs and
65:22
thus it
65:24
debra
65:25
dr roberts
65:26
wish to add please go ahead
65:30
yes thank you very much for for that
65:32
question if we look at the information
65:34
we provide on the area of asia generally
65:37
we can see that we've already got
65:39
millions of people
65:40
in places like asia which are subject to
65:43

of
65:44
acute
65:45
food and water challenges in the present
65:48
so this is not a forward-looking
65:51
issue we have millions of people already
65:54
affected by acute food and water
65:56
shortages now in places like asia and if
65:59
we think about a world of two degrees of
66:01
global warming then we know that under
66:04
those conditions even areas where we are
66:07
capable of growing staple crops now will
66:09
become unavailable for for cultivation
66:12
and so we can see the rate of challenge
66:14
is going to increase as every element of
66:17
global warming increases the level of
66:19
risk to which we are exposed the range
66:22
of impacts that we have to deal with and
66:24
so asia like many parts of the world
66:26

will have to deal
66:28
with severe
66:29
and
66:30
current food and water crises going
66:33
forward and that's the importance of
66:34
adaptation we need to think about new
66:36
ways of dealing with these problems and
66:39
our report talks to those solutions new
66:41
ways of cultivation new crop types
66:44
thinking about how we conserve our water
66:46
resources and and we know particularly
66:48
asia is critical
66:50
because they have the water towers of
66:52
the world in the mountains and so
66:54
thinking about those mountain ecosystems
66:56
and the conservation of those ecosystems
66:58
is important but that scale of
67:00
intervention is only possible if we've
67:02

got governance
67:04
that allows
67:05
all levels of activity to be coordinated
67:07
if we've got adequate financial support
67:10
and civil society is brought to the
67:12
table in order to participate in finding
67:14
solutions
67:16
thank you very much for that uh the next
67:18
question again quick responses from both
67:21
co-chairs the group one report said that
67:24
we are going to reach and the question
67:26
is from our newspapers in barcelona the
67:29
group one report said that we are going
67:30
to reach 1.5 degrees celsius no matter
67:33
what before 2040 and in the better case
67:36
scenario we may reduce it after that
67:39
then
67:40
your predictions about extinction of
67:42

species when we reach 1.5 degrees
67:44
celsius will be reached before 2040 for
67:47
sure what are the scenarios after that
67:50
dr portner first and perhaps then dr
67:53
roberts
67:54
yeah thank you thank you very much for
67:55
that question certainly we have
67:58
considered overshoot scenarios
68:00
in in our report and have also
68:03
considered their time duration and they
68:05
would last
68:06
uh several decades
68:08
until end of century before the
68:11
temperature would be falling again and
68:13
and during that time spent we expect the
68:16
same level of impact as if we would
68:19
uh have a stabilized level of increased
68:23
increased warming at higher higher
68:25

temperatures
68:26
it is fully in line with the statement
68:28
that every bit of warming matters so
68:33
moving towards
68:34
overshoot scenarios is is not a safe
68:37
haven that this strategy might might
68:41
promise it will
68:43
also lead to irreversible consequences
68:46
the melting of polar ice sheets will be
68:48
increased sea level rise
68:50
will be increased
68:51
the loss of habitat and species with the
68:54
potential for local extinction patterns
68:57
will will also increase and there is an
69:00
increasing risk associated with those
69:02
higher temperatures of
69:05
species losses um in entirely as we have
69:09
projected in the in the report that this
69:12

uh increase is is occurring in terms of
69:15
the percent of of species
69:18
increasing with increasing degrees of
69:20
warming
69:21
over this overshoot
69:23
this exclude
69:26
going for overshoot as a valid strategy
69:28
in climate uh mitigation
69:32
i think an important addition to that
69:34
and and really the core dna of of the
69:36
story we tell in the working group 2
69:38
report is how closely human and natural
69:40
systems are interconnected and as hunts
69:43
has pointed out we have systems such as
69:46
mountain tops coral reefs and others
69:49
coastal wetlands which will be
69:51
challenged in a
69:53
scenario of overshoot and this is
69:55

critical because we're not only talking
69:56
about the loss of ecosystems we're
69:59
talking about the loss of ecosystems
70:00
that are absolutely critical to
70:02
underpinning the livelihoods often of
70:04
the most vulnerable in the world and so
70:06
this really raises the profile of the
70:09
adaptation agenda because we need to
70:11
think about not only how we adapt to
70:14
those changes in ecosystems are there
70:16
things we can do by increasing
70:17
conservation areas management
70:20
looking for a future but what do we do
70:22
with the human societies that are
70:25
impacted by these changes and again this
70:27
talks to the need to tie in our climate
70:29
change response
70:30
to a strong development response so that
70:32

vulnerable communities have social
70:34
safety nets we put in place basic
70:36
infrastructure we think about
70:37
realignment of financial resources and
70:40
so our report really speaks to this
70:41
complex interrelationships of problems
70:44
that we all need to get around the table
70:46
to solve
70:48
thank you very much
70:49
dr roberts the next question is for you
70:51
also you mentioned cities being key
70:54
sites for positive climate action what
70:57
are some of the most effective systems
70:59
and strategy
71:00
strategies you have seen work
71:02
practically on a city-wide level and
71:05
what enhances their efficacy efficacy
71:10
there's no doubt that cities offer us an
71:13

important global scaled but time limited
71:16
opportunity to act to increase our
71:18
adaptive capacity the majority of us
71:21
already live in urban areas and cities
71:23
and certainly by the middle of the
71:24
century two-thirds of us will be living
71:27
in urban areas
71:28
the opportunities in urban areas are
71:31
multiple around planning and design of
71:34
infrastructure
71:35
bringing nature back into the city so
71:38
often we've thought about nature as
71:40
something that occurs outside city
71:42
borders but our report points out very
71:45
clearly that if we bring nature back
71:46
into the city protect our flood plains
71:49
have trees along our streets we can do a
71:52
great deal to increase our adaptive
71:54

capacity to deal with impacts of floods
71:56
heat stress improve health and so
71:58
there's a real advantage in
72:00
reconceptualizing our cities not only as
72:02
a place of people but a place of nature
72:06
we also need to know though that amongst
72:08
our cities there's a subset the coastal
72:10
cities and we know that we will have
72:12
about a billion people
72:14
living in low-lying coastal areas by the
72:16
middle of the century that are
72:18
particularly at risk and they're
72:20
particularly at risk because of the
72:22
impacts of sea level rise salination
72:24
flooding heavy rainfall and those are
72:27
areas we would probably need to act on
72:30
initially because there are areas of
72:32
high economic activity connectivity to
72:34

inland areas and because of the range of
72:37
risks they're exposed to and in those
72:39
areas we would need to think for example
72:41
about coastal defenses moving away from
72:44
hard sea walls to more productive
72:46
coastal ecosystems early warning systems
72:50
to enable people to know when risks are
72:53
emerging and to make suitable plans
72:55
to factor in that we need good
72:57
governance and that if one wants decent
72:59
responses to the challenges that many of
73:02
these areas would
73:03
face we have to have everyone around the
73:05
table agreeing on the plans and this
73:07
includes the most vulnerable and the
73:09
report is really important because it
73:11
focuses us not only on the formal
73:14
aspects of urban development but calls
73:16

off very strongly the informal
73:17
settlements around the world where many
73:19
of the most vulnerable live and calls
73:21
for a specific focus
73:23
on these and a call to start investing
73:26
in our informal settlements to change
73:28
the tide both literally and
73:30
figuratively thank you dr roberts next
73:33
one for dr portner
73:35
with this is from cnn with everything
73:37
going on how would you like this report
73:40
to be interpreted and prioritized by
73:42
policy makers and the world at large and
73:45
what do you expect from journalists to
73:47
help keep the momentum going in the
73:49
coming months and years
73:52
thank you very much for for this
73:54
important question
73:56

the report talks about the impacts risks
73:59
it also talks about our possibilities to
74:02
adapt and and brings those solution
74:05
options to the fore
74:07
talking also about the effectiveness and
74:09
their feasibility but most importantly
74:12
we also talk about mal adaptation and we
74:14
talk about adaptation limits and these
74:17
adaptation limits together with
74:20
the the information about risk provide
74:23
orientation for the action of policy
74:26
makers and also
74:28
which future to go for
74:31
and and this reports
74:33
strengthens uh the message around
74:37
the agreement reached with
74:39
with the paris agreement and it
74:42
strengthens to move and push for the
74:44

more ambitious side side of it with uh
74:48
by casting light on the most vulnerable
74:50
vulnerable ecosystems on the planet on
74:53
the most vulnerable people on the planet
74:56
and also on the challenges that actually
74:58
for some species and also for humans we
75:02
are starting to lose habitat in in the
75:05
most exposed areas of the planet which
75:09
are close to the equator in the ocean we
75:12
already seeing a development of a
75:14
biodiversity valley indicating
75:17
uh and as a consequence of species
75:20
moving out moving towards the poles
75:23
there are also some areas
75:25
on the on the planet that are
75:29
represent
75:30
environmental conditions where people
75:32
can no longer
75:33

be outside
75:35
and
75:36
this is representing the same for our
75:38
species as for others the loss of
75:41
habitat so these trends will be
75:43
strengthened with with climate change
75:45
and i think continued uh communication
75:48
between uh scientists and and
75:53
the media
75:54
as well as
75:55
policy makers is needed to to bring
75:58
those such information to the fore
76:01
and
76:02
as i said to provide the
76:05
the information for um
76:08
ambitious action and when i talk about
76:10
action i mean action along various lines
76:14
that
76:15

consider the
76:17
interactions between nature human
76:19
society and and the climate system and
76:22
correct for the current imbalances that
76:24
we see in these interactions due to
76:28
the the changing climate we are
76:31
currently observing in terms of
76:33
motivating
76:35
policymakers i think it needs a mix of
76:38
of actions as i said in the short term
76:40
the information flow from science to
76:42
policymakers and carried forward through
76:45
the
76:46
media emphasized by the media also the
76:49
media reporting uh from the the societal
76:53
engagement and mobilization that is
76:55
happening is is key but there is also
76:59
urgency in developing the education
77:02

systems
77:03
both the the the lower and higher
77:06
education systems towards
77:08
uh
77:10
aspects and curricula that consider
77:12
these existential challenges
77:15
to humankind which will be with us for
77:17
decades and maybe even centuries
77:20
to come and educating the young
77:23
and informing the adult
77:25
population about these challenges will
77:28
be key
77:29
for ambitious global action thank you
77:32
thank you very much for that response
77:34
the next question is from la repubblica
77:36
for dr roberts do you think individual
77:39
change that means change of way of life
77:43
is important at the same level of
77:45

government and cooperation
77:48
or people have to wait before a strong
77:51
commitment at an ins at an institutional
77:54
level first thank you
77:57
thank you so much for that important
77:58
question because it speaks to each one
78:00
of us and the way we live our lives and
78:02
i think our report is very clear
78:05
it indicates that this has to be a whole
78:07
of society response
78:09
so not a single individual community
78:12
city or government can opt out we all
78:14
need to opt in to the solution and a key
78:17
part of that is obviously the way we
78:19
live our lives the choices we make
78:22
about how we live those lives but
78:23
importantly how we use our sense of
78:26
agency in the world
78:28

how we engage with governance processes
78:31
you know how we engage with leadership
78:32
in our communities the kind of
78:35
priorities we express about the kind of
78:37
world we want to see which will
78:39
influence policies so all of this is
78:41
critical the individual can play a vital
78:43
role through the choices and actions
78:45
they take and make in their lives there
78:48
are many things that individuals cannot
78:50
change and that rely on governments at
78:53
all levels local provincial regional
78:56
national international to act and we
78:58
need that to be concerted
79:00
but again governments by themselves
79:02
can't act alone and we must see the
79:04
private sector coming to the table as
79:06
well and so it requires all of us to be
79:08

playing our part in different ways but
79:11
ensuring that those actions are fully
79:13
integrated i think this is what has been
79:16
very clearly made
79:17
as as a point in our report is that
79:19
while action is happening it's not rapid
79:22
enough and it's uneven so various
79:25
elements of society are acting others
79:27
aren't and we're not acting fast enough
79:30
and so it's a really strong call for all
79:32
of us to start doing the heavy lifting
79:34
that's going to ensure a just equitable
79:37
world and ensure that we have a
79:38
sustainable planet for many generations
79:41
still to come
79:42
thank you very much for that response
79:44
the next question is from the print in
79:46
india it's for both co-chairs so i'll be
79:49

looking for quick responses there the
79:51
report talks about maladaptation how can
79:54
countries prevent maladaptation in the
79:57
long run while also addressing
79:59
short-term needs what factors must
80:01
policy takers consider at planning stage
80:04
at the planning stage
80:06
uh dr portner and then dr roberts
80:09
yeah thank you for for this important
80:12
question and we saw examples of of this
80:14
on
80:15
on the slide as far as coastal building
80:18
of coastal defenses is
80:20
is concerned and it comes also to a
80:22
point
80:24
that i made earlier that for any uh
80:27
short-term decision and consideration
80:29
and possible compromise
80:32

between strategies the long-term
80:34
implement implications need to be
80:37
considered for example if you if you
80:41
develop strategies that meet the
80:43
short-term food requirements of the
80:45
local population but enhance ecosystem
80:49
degradation and and also the
80:52
soil and land degradation you you may
80:56
meet the needs of the
80:58
immediate adult and young population but
81:02
you erode uh the sustainability there
81:05
and you you bring
81:08
the food sources to an end for the next
81:10
generations another example is
81:14
the building of coastal defenses that
81:16
i've just referred to if
81:19
if you build
81:20
hard sea walls you are with increasing
81:23

sea level rise taking space away for the
81:26
natural ecosystems that
81:28
may help you the white floodplains the
81:31
salt marshes or mongrel forests that
81:33
would contribute to coastal
81:35
protection would would have only a
81:38
narrow
81:40
area uh available to them to begin with
81:43
and then this aerial arrow area would
81:45
shrink uh continually and then there
81:48
will be a point with increasing sea
81:50
level where the question is to what
81:51
extent and how high can you actually
81:54
build those sea walls so there may there
81:56
will be in that case abrupt adaptation
81:59
uh the limits which um then expose uh
82:04
the
82:05
local population to
82:07

extreme events such as intensive
82:09
flooding and so forth so that so shows
82:13
the challenges
82:14
of of combining information from climate
82:17
projections in that
82:19
aspect sea level rise projections and
82:21
the local action to be taken to protect
82:24
ecosystems and the population and
82:26
develop an integrated approach this also
82:29
argues
82:30
to bridge between silos
82:33
so
82:34
from a more general and global
82:35
perspective to just do climate
82:39
mitigation
82:40
as is currently in the focus of many
82:43
developed countries reducing emissions
82:46
and not also consider the needs to
82:49

protect nature and its capacity to
82:52
enhance carbon storage
82:54
that would also and can also lead to
82:57
mild adaptation
82:59
strategies and and potentially to the
83:02
loss of the capacity of ecosystems to
83:04
help mitigation
83:06
thank you
83:07
i think a very important point to add
83:10
what
83:11
to what hans has just said is
83:13
i think the overall global message
83:16
that's coming out of the ipcc in this
83:17
assessment cycle is that the world we
83:19
live in today
83:21
is not going to be the world we live in
83:22
five years 10 years or even 20 years
83:24
from now and therefore we have to be
83:26

much more vigilant about our actions and
83:29
so certainly something that may increase
83:31
our adaptive capacity today may be seen
83:34
as a good adaptation option today
83:36
may not be so 10 years from now or 20
83:39
years from now and that really speaks to
83:41
the fact that we need processes that
83:43
allow us to monitor and evaluate
83:46
the impacts of our adaptation
83:48
interventions
83:50
in a variety of sectors across various
83:52
elements and scales of our society that
83:55
really speaks to a new partnership again
83:57
between policy and science to enable
83:59
that monitoring and evaluation but
84:01
probably most importantly again speaks
84:03
to a new social compact that sees the
84:06
most vulnerable groups being drawn to
84:08

the table because our report very
84:09
clearly indicates that the groups most
84:12
impacted by male adaptation are the
84:14
vulnerable societies around the world
84:16
the vulnerable communities those who
84:18
live in formal settlements those who
84:20
live in vulnerable areas and it's really
84:22
critical if we are to monitor and
84:23
evaluate not only to take a scientific
84:26
perspective on the impacts of our
84:28
interventions but also to hear from the
84:29
grassroots from the people who are
84:31
experiencing the impacts of these
84:33
interventions to determine whether
84:35
they're having the effect that is
84:37
desired or in fact if they're becoming
84:39
maladaptation so again it speaks to the
84:41
fact that we can't have a linear
84:43

approach to these problems we need to be
84:45
talking to everyone to have them around
84:47
the table and to be using all of our
84:49
strengths to take the world forward
84:52
thank you very much we have about 15
84:54
minutes left so next question again for
84:57
dr roberts
84:58
what is the role of agriculture
85:00
production on the scenario presented by
85:02
the report
85:03
are south american crops at the risk
85:08
so obviously agricultural production is
85:10
a very important concern to working
85:12
group two because that links back to
85:14
well-being and livelihoods and economies
85:18
what we do indicate that given the
85:20
current uh impacts that we're seeing
85:22
from climate change in the here and now
85:25

as we've indicated before we're experi
85:27
already experiencing acute food and
85:29
water shortages in places like central
85:32
and south america asia the small island
85:35
states and so this is a real problem now
85:38
what we know is that problem is going to
85:40
escalate again in places like central
85:42
and south america if we look at two
85:45
degrees of global warming we know that
85:48
areas that are currently growing staple
85:50
crops will not be able to grow those at
85:52
the same level of efficiency and
85:54
effectiveness and so there are
85:56
significant challenges coming for areas
85:59
like south america africa asia in terms
86:02
of overall food production
86:05
thank you very much next question uh is
86:07
more on the process and i'll direct it
86:09

to the secretary of the ipcc
86:12
can you please elaborate on how the
86:14
crisis in ukraine has affected the last
86:16
week climate negotiations between
86:18
countries how do you look at publishing
86:20
this report during this crisis
86:24
for this question question the ipc
86:27
session are closed the session
86:30
they are closed session
86:32
they are design designated in this way
86:35
to allow frank
86:38
and transparent discussion
86:40
between government and scientists
86:44
because of this
86:46
closed nature
86:47
of this approval session
86:50
we are not discussing or paying
86:52
attention to the presence the attendance
86:55

of
86:56
any uh you know participants for
86:59
delegation this is something is closed
87:02
and
87:02
yes of course
87:05
we are keeping on track the list of uh
87:08
the participants
87:10
and i we will provide the whole list of
87:13
the participants
87:15
in the report of disciplinary session
87:18
thank you very much next question is
87:20
from the washington post and it's for
87:22
both co-chairs
87:25
you have spoken about the numerous
87:26
mitigation and technology options that
87:29
are already available to society and how
87:33
political will
87:34
is the major barrier to transformation
87:37

what does the working group 2 report
87:39
tell us about how to build the political
87:41
will that is necessary for change dr
87:44
roberts and then dr putner
87:47
thank you for that important question in
87:49
fact this is not a new message for
87:51
the ipcc that message was made very
87:54
clear in the special report of 1.5
87:56
degrees celsius
87:58
that infected societal and political
88:00
will which is the major challenge in
88:01
moving forward towards a more resilient
88:04
and sustainable present and future for
88:06
everyone around the world
88:08
what we look at in terms of working
88:10
group two is how that
88:13
support for change is built so we speak
88:15
to the need for institutions that are
88:18

inclusive that are well funded we speak
88:21
to the need for participation
88:24
in decision making so welcoming groups
88:26
to the table particularly the vulnerable
88:28
as i've indicated before we speak to the
88:30
need for various levels of government
88:33
to interact with one another to create
88:35
the kind of environment that facilitates
88:37
change so for example national
88:39
government creating the policy framework
88:41
for local government to act but also the
88:44
appropriate flow of financial resources
88:47
to enable that but ultimately political
88:50
and societal will is determined by what
88:53
each of us as individuals prioritize as
88:55
important in our lives so over and above
88:58
the structural changes that are needed
89:00
in terms of government cooperation flow
89:02

of finance it's important that we
89:04
ourselves educate ourselves about the
89:06
challenges we face and make those
89:09
priorities known more broadly in society
89:12
and to our leadership in order to
89:14
encourage the political school that's
89:15
necessary to take the bold and rapid
89:17
action required in this decade
89:22
yeah thank you and to add to to the
89:25
answer that that deborah has has given I
89:28
think in the context of climate
89:29
resilient uh development the the
89:32
cross-sectoral collaboration in
89:35
governance and between institutions is
89:38
is an important
89:40
element that can enable
89:42
a stronger action and and also can
89:44
provide motivation to to take action
89:47

being aware of problems in in other
89:50
sectors where one's own sector can
89:53
possibly contribute and we have
89:55
developed a picture in this report how
89:57
such
89:59
integration and and
90:01
cross-sector collaboration can can
90:04
happen also
90:06
the the view of the international not
90:09
just of of the local and vulnerable
90:12
elements in one's own society
90:15
could
90:16
could provide motivation but also
90:18
looking at the international
90:20
situation where we clearly lay out that
90:23
multinational international
90:25
collaboration
90:26
is an essential element in in making a
90:30

progress in in this climate
90:33
arena
90:34
this also concerns a global move to for
90:38
example
90:40
remove subsidies
90:41
from from fossil fuels
90:44
and
90:45
the current crisis could actually lead
90:48
and this is already entering the
90:50
political discussion in my own country
90:52
could actually
90:54
lead to the
90:56
avoidance of dependencies on the
90:58
suppliers of fossil fuels
91:00
in situations of political in
91:03
instability and
91:05
and
91:06
supporting the establishment of
91:09

renewables in enhancing their fraction
91:11
in in energy provision could increase
91:14
the the independence
91:16
in in that sense so there are
91:19
motivations um that that come from from
91:22
various sites
91:24
but the most important pillar certainly
91:26
is and has been the mobilization of the
91:29
young generation that we have seen
91:31
somewhat
91:33
surprisingly but
91:34
it was a very pleasant surprise after
91:36
the release of the 1.5 report
91:39
where
91:41
the the taking up the crucial
91:43
information on climate change and its
91:45
future challenges by the young
91:47
generation and their concern about the
91:49

future
91:50
is and has been a very strong
91:54
level for political shifts that we have
91:56
seen in some countries in including my
91:59
own thank you thank you very much for
92:01
that the next question is for the ipcc
92:04
chair dr lee and dr portner
92:06
the results of the working group 2
92:08
analysis
92:10
are not so surprising since it is
92:12
natural to believe that continued
92:14
climate change brings more serious
92:16
impacts on ecosystems and damages and
92:19
losses
92:20
so what is in your view the real
92:23
scientific value of the report and its
92:26
impact on policies
92:28
dr lee
92:33

thank you very much it's a very
92:34
important questions and that's i believe
92:36
the
92:38
hands will give a more detailed answer
92:40
to this but uh
92:42
overall the this study the this
92:45
assessment for the first time uh
92:48
analyzes assesses in very detail the uh
92:52
impact of a temporary
92:55
overshoot
92:56
and it the report clearly indicates that
92:59
there will be a some
93:00
uh
93:01
impacts that will be irreversible
93:04
even if the temperature will return to
93:07
1.5
93:08
at the end of the century and uh
93:11
that is one of the major major findings
93:14

of this report as well as
93:16
this report
93:18
as already mentioned identifies
93:21
key risks
93:23
uh
93:24
key risks and then does shows how that
93:27
how those key risks change
93:30
along the temperature gradients uh
93:32
changes and these are
93:35
quite a new
93:36
[Music]
93:37
messages that this report can deliver
93:40
compared to our last reports hans
93:44
thank you very much and thanks a lot for
93:46
this
93:47
important question clearly
93:49
the this report if you just see it as a
93:52
linear extrapolation of the last report
93:54

on impacts and risks
93:56
the information may may not be so
93:59
surprising although the certainly the
94:01
scientific basis for extrapolating
94:05
is is very solid
94:08
and is
94:10
also very important in terms of it the
94:13
possibilities and progress made in terms
94:16
of attributing these impacts um for
94:19
example due to extreme events to human
94:22
activities i think there the working one
94:26
report and the working two report
94:28
come come together closely another
94:30
advance that our report offers is really
94:33
is systems understanding an integrative
94:36
understanding
94:37
how the different lines of evidence come
94:39
together
94:41

there was one figure in in that slide
94:43
presentation which was in in rather
94:46
straightforward ways uh laying bringing
94:49
forward the interactions between the
94:51
human systems the climate systems and
94:54
biodiversity biodiversity providing
94:57
ecosystem services and how human society
95:02
currently is causing the imbalance by by
95:05
causing climate change through
95:06
greenhouse gas emissions and thereby the
95:09
impact feedbacks on the natural and the
95:12
human systems by shifting that balance
95:14
in interactions and from a systems point
95:17
of view this emerges as as an
95:20
underpinning framework for
95:23
the concept of climate resilient
95:25
development which was already there yes
95:27
during the fifth assessment report but
95:30

what is uh much more
95:33
comprehensively uh developed in in our
95:36
our present report it talks about the
95:39
resilience for ecosystems as well as the
95:42
resilience for for human systems and it
95:46
shows that
95:47
um in that argumentation that going for
95:51
a combination of human health ecosystem
95:54
health and finally at the highest
95:56
complexity level planetary health is
95:59
actually giving us hope for the future
96:01
and should provide a vision and an
96:04
orientation for concerted actions across
96:06
the globe
96:08
thank you very much uh we will take a
96:10
few just another two questions given the
96:12
time
96:13
uh the first one is from
96:15

news first in sri lanka question is for
96:18
dr roberts what are the ipcc's
96:21
recommendations in terms of
96:23
in
96:24
in calculating the local
96:26
i guess including the local and
96:28
indigenous knowledge to find more
96:30
effective solutions to tackle climate
96:33
change
96:34
thank you so much and that's such an
96:36
important question because certainly one
96:37
of the new elements of this particular
96:40
assessment is a much stronger focus
96:43
on indigenous communities local
96:46
knowledge traditional knowledge as a way
96:48
of understanding the world that we live
96:50
in and so there's a very strong uh
96:52
pointer to the fact that where we engage
96:55

with indigenous communities and peoples
96:58
where we consider local knowledge that
97:00
really empowers us not only to frame the
97:03
questions we're asking in a more
97:04
relevant way but to develop answers that
97:07
are more comprehensive that are more
97:09
inclusive and allows us to better
97:11
understand the kind of response options
97:13
we have available to us so this i think
97:15
is an exciting move for the scientific
97:17
community acknowledging that there are
97:19
many forms of and ways of knowing the
97:21
world that there are many knowledges in
97:23
the world and so we've tried very
97:25
strongly to bring forward the
97:26
perspectives of indigenous communities
97:29
uh bring forward the input of local
97:32
knowledge in informing the kind of
97:34

solution options that are available but
97:36
the bottom line there is no doubt that
97:38
indigenous knowledge and local knowledge
97:40
is critical to understanding the world
97:42
critical to understanding the way we
97:43
respond to the climate change challenge
97:45
and critical to finding solutions and
97:47
therefore these communities absolutely
97:50
must be at the table when we're talking
97:52
about the climate change response and
97:54
they must be at the table when we're
97:56
deciding what action we take
97:58
thank you very much and the last
98:00
question is from the financial times for
98:02
both coaches or again i'll i'll be uh
98:05
looking for short answers there we are
98:06
already at 1 30.
98:09
um could you explain why the phrasing in
98:12

the
98:12
summary for policymakers is losses and
98:15
damages rather than loss and damage
98:18
which is used in the underlying
98:20
literature and full report and if that
98:22
is different to the language in the
98:25
summary for policy makers why it is
98:27
different
98:30
dr portner and then dr roberts
98:36
thanks thanks a lot for this important
98:39
question
98:40
certainly
98:41
the content of our report and the
98:44
summary for policy makers is
98:46
is very close to political interest and
98:48
to political
98:50
debate
98:51
and
98:52

we build on the information in in the
98:55
scientific literature
98:57
without really crossing the line into
99:00
the policy arena without really
99:02
developing policy prescriptive uh
99:05
language or wanting to get entangled in
99:09
in political uh debates between the
99:12
global north and and the global south or
99:16
considering country interests that is
99:19
why we are developing more policy
99:22
neutral language and and using the
99:24
important information on losses and
99:26
damages as they result from impacts and
99:31
and also from risk projections for
99:34
for the future in in in a more policy uh
99:38
neutral way
99:40
and and to make this clear we have used
99:43
uh the wording uh that the reporters
99:46

have rightly um observed and it it helps
99:50
us uh to to bring this into a more
99:53
policy neutral but very policy relevant
99:56
uh language that is my my take on this
99:59
and about to end
100:01
I think it's a very important term
100:03
because it allows us to understand the
100:04
full spectrum of the challenge that we
100:06
face so we use the term losses and
100:08
damages really to speak to adverse
100:10
impacts
100:12
both in the present but also potential
100:14
future risks but it talks to a scenario
100:17
where we can draw forward not only
100:18
economic impacts but
100:20
non-economic impacts so losses and
100:23
damages so it gives us a sense of is
100:25
adaptation but there are potential
100:28

scenarios as we've indicated where we
100:30
may have maladaptation where adaptation
100:32
may not be effective it may not be fast
100:34
enough or at scale and then we have to
100:36
deal with the result of losses and
100:38
damages but that phrasing as i say
100:40
allows us not only to think about the
100:42
loss of infrastructure the loss of
100:44
people's lives but the non-economic
100:46
losses that may come from loss of
100:48
culture loss of language loss of
100:50
livelihoods lots of places where people
100:52
live so it allows us to adopt a more
100:54
comprehensive view of the challenges
100:56
that we have to face as society
101:00
thank you very much this brings us to
101:02
the end of today's press conference
101:04
let me just say thank you to all of the
101:06

representatives of the media who have
101:08
been with us today we have answered as
101:10
many questions as possible there are
101:12
many many more questions and we will be
101:14
answering them in the hours days and
101:16
weeks to come i would like to also thank
101:19
all of the panelists at today's press
101:21
conference and for their time and
101:22
dedication and providing uh substantive
101:25
answers to to
101:27
to the questions that that were posed to
101:28
them
101:29
i would also like to stress to the
101:31
representatives of the media that the
101:33
working group 3 report which is looking
101:35
into the mitigation of the climate
101:37
change is scheduled to be released in
101:40
early april we will be communicating
101:42

with you soon about that in the meantime
101:45
thank you all take care and see you soon
102:29
you
08:02
good morning ladies and gentlemen and
08:04
given that we have reporters joining
08:06
from virtually all time zones i should
08:08
also add good afternoon and good evening
08:11
welcome to this press conference by the
08:12
intergovernmental panel on climate
08:14
change my name is andre mahertich and
08:17
i'm the head of the ipcc communications
08:20
and i will be moderating today's press
08:21
conference
08:22
today we are releasing the latest ipcc
08:26
report on climate change impacts
08:28
adaptation and vulnerability
08:31
we will be also presenting the
08:33
scientific findings related to it
08:35

we have several distinguished speakers
08:37
today
08:38
their brief statements will be followed
08:40
by the official presentation of the
08:42
report
08:43
I'll start just with a few words about
08:45
the running of the press conference
08:47
the instructions on how to submit
08:50
questions have already been shared with
08:52
the ipcc accredited media yesterday and
08:54
again this morning
08:56
when submitting your questions please do
08:59
indicate your name your media
09:01
organization and to whom your question
09:04
is directed to
09:05
we will try to accommodate as many
09:07
questions as possible but due to high
09:10
level of media interest we may simply
09:12

not be able to address them all we are
09:14
scheduled to wrap up this press
09:15
conference by 1 30 pm central european
09:18
time
09:19
i am pleased now to welcome the
09:21
secretary of the intergovernmental panel
09:23
on climate change mr abdullah moxit who
09:26
will introduce today's speakers
09:30
thank you all
09:31
for joining us today
09:33
for the release of this important
09:35
reports
09:36
this ipcc report on impacts
09:39
adaptation and vulnerability to climate
09:42
change follows
09:44
the report on the physical science basis
09:47
we launched in august 2021
09:51
it also comes before the two last
09:55

reports
09:56
which we expect this year
10:00
with this report we will conclude the
10:03
sixth assessment report of the ipcc the
10:06
most intense in the history of ipcc
10:10
we are successfully
10:12
comp we have successfully completed
10:15
the second ever
10:17
ipcc virtual approval session and i wish
10:22
to express my deep appreciation
10:26
to the scientists working on voluntary
10:28
basis the government's
10:31
organization and everyone else who
10:34
contributed to this report
10:37
the ipcc is a unique interface
10:41
between policy and science
10:44
and that's makes
10:46
it this is that's what makes
10:49

our reports the most credible
10:52
resource on climate change for decision
10:55
makers at all levels
10:59
i am incredibly
11:01
honored to welcome and introduce our
11:04
distinguished guest speakers
11:06
first
11:07
we will see the video message from the
11:10
united nation secretary general antonio
11:13
goteris
11:15
today we will also hear from our chair
11:18
the ipcc chair
11:20
pro professor josoli
11:23
and
11:25
the two head of our parent organizations
11:29
the world meteorological organization
11:32
secret original professor peter dallas
11:35
and
11:36

the united environment program executive
11:38
director dr inger
11:40
anderson we we also have to the two
11:44
co-chairs who led the production of the
11:47
reports dr debra roberts and dr
11:52
hans auto partner
11:53
we will now see the video message from
11:56
the united nations secretary general
11:59
antonio guterres
12:05
dear representatives of the media i've
12:07
seen many scientific reports in my time
12:10
but nothing like these
12:12
today's ipcc report is an atlas of human
12:15
suffering
12:16
and the damning indictment of failed
12:18
climate leadership
12:20
with fact upon fact this report reveals
12:23
how people on the planet are getting
12:25

clobbered by climate change
12:27
nearly half of humanity is living in the
12:30
danger zone now
12:32
many ecosystems are at the point of no
12:34
return now and checked carbon pollution
12:36
is forcing the world's most vulnerable
12:38
on a frog march to destruction now
12:41
the facts are undeniable
12:43
this abdication of leadership is
12:46
criminal
12:47
the world's biggest polluters are guilty
12:49
of arson on our only home
12:52
it is essentially to meet the goal of
12:54
limiting global temperature rise to 1.5
12:56
degrees
12:57
and science tells us that will require
12:59
the world to cut emissions by 45 by 2030
13:03
and achieve net zero emissions of
13:05

greenhouse gases by 2050
13:08
but according to current commitments
13:11
global emissions are set to increase
13:13
almost 14 percent over the current
13:16
decade
13:17
that spells catastrophe it will destroy
13:20
any chance of keeping 1.5 alive
13:23
today's report underscores two core
13:26
truths
13:27
first coal and other fossil fuels are
13:30
choking humanity
13:32
all g20 governments have agreed to stop
13:33
funding coal abroad
13:35
they must now urgently do the same at
13:37
home and dismantle their coal fleets
13:40
those in the private sector still
13:42
financing coal must be held to account
13:45
oil and gas giants and their
13:46

underwriters are also on notice
13:49
you cannot claim to be green while your
13:51
plans and projects undermine the 2015
13:53
net zero target
13:55
and ignore the major emission cuts that
13:57
must occur this decade
14:00
people see through the smoke screen
14:02
oecd countries must phase out coal by
14:05
2030 and all others by 2040
14:08
the present global energy mix is broken
14:12
as current events make all too clear our
14:15
continued reliance on fossil fuels makes
14:17
the global economy and energy security
14:19
vulnerable to geopolitical shocks and
14:21
crises
14:23
instead of slowing down the
14:24
decarbonization of the global economy
14:26
now is the time to accelerate the energy
14:28

transition to a renewable energy future
14:32
fossil fuels are a dead end
14:34
for our planet
14:36
for humanity and yes for economies
14:39
a prompt well-managed transition to
14:41
renewables is the only best pathway to
14:43
energy security universal access and the
14:46
green jobs our world needs
14:48
I'm calling for developed countries
14:50
multilateral development banks private
14:52
finances and others to form coalitions
14:55
to help measure emerging economies and
14:58
the use of coal
14:59
these targeted mechanisms of support
15:01
would be over and above existing
15:03
sustainable development needs
15:05
the second core finding from this report
15:08
is slightly better news
15:10

investments in adaptation work
15:13
adaptation saves lives
15:15
as climate impacts worsen and they will
15:18
scaling up investments will be essential
15:20
for survival
15:22
adaptation and mitigation must be
15:24
pursued with equal force and urgency
15:27
that is why i've been pushing to get the
15:29
50 percent of all climate finance for
15:31
adaptation
15:32
the glasgow commitment on adaptation
15:34
funding
15:35
is not enough to meet the challenges
15:37
faced by nations on the front lines of
15:39
the climate crisis
15:41
i'm also pressing to remove the
15:43
obstacles that prevent small island
15:44
states and least developed countries
15:46

from getting the finance they
15:48
desperately need to save lives and
15:50
livelihoods
15:52
we need new eligibility systems to deal
15:54
with this new reality
15:56
delay means death
15:58
i take inspiration from all those on the
16:01
front lines of the climate battle
16:02
fighting back with solutions
16:05
all development banks multilateral
16:07
regional national know what needs to be
16:09
done
16:10
work with governments to design
16:12
pipelines of bankable adaptation
16:14
projects and help them find the funding
16:16
public and private
16:18
and every country must honor the glasgow
16:20
pledge to strengthen national climate
16:22

plans every year until they are aligned
16:25
with 1.5 degrees celsius
16:28
the g20 must lead the way our humanity
16:31
will pay an even more tragic price
16:33
i know people everywhere are anxious and
16:37
angry
16:38
i am too
16:39
now is the time to turn rage into action
16:42
every fraction of the degree matters
16:44
every voice can make a difference and
16:45
every second counts thank you
16:56
following secretary general's message i
16:57
now invite the chair of the
16:59
intergovernmental panel on climate
17:00
change dr hora sung li to take the floor
17:06
thank you very much
17:08
distinguished representatives of the
17:10
media wmu secretary general terry unev
17:14

executive director anderson
17:16
we have just heard a powerful message
17:19
from the u.n secretary general antonio
17:22
guterres
17:23
the findings of the ipcc report we are
17:26
releasing today are clear
17:29
the stakes for our planet have never
17:32
been higher
17:33
last august the ipcc's working group one
17:37
report showed unequivocally that human
17:40
activities have warmed the climate at a
17:43
rate not seen in at least the past 2000
17:47
years
17:48
we are on course to reaching global
17:50
warming of 1.5 degree celsius within the
17:54
next two decades and temperature will
17:56
continue to rise unless the world takes
17:59
much bolder action
18:02

the working group 2 report we are
18:04
releasing today provides the latest
18:07
understanding of what does this warming
18:09
means for the people ecosystems and the
18:13
planet
18:14
the report is a warning about a dire
18:18
warning about the consequences of
18:20
inaction
18:21
it shows that climate change is a grave
18:24
and bounding threat
18:26
to our well-being and a healthy planet
18:30
it also shows that
18:32
our action today will shape how people
18:35
able to adapt to climate change and how
18:39
nature responds to increasing climate
18:42
risks
18:43
severe climate change impacts already
18:46
happening
18:48

vulnerable people those marginalized
18:50
socially and economically are the most
18:52
exposed to climate change impacts and
18:55
have the least resources to adapt
18:59
today we also deepen our understanding
19:02
of solutions to climate change and how
19:05
adaptation can help us lower risks and
19:08
reduce vulnerability
19:10
these solutions open new opportunities
19:13
for innovation in our societies and
19:17
economies
19:19
our collective and individual adaptation
19:21
can be an effective strategy but there
19:24
are limits to how much we and other
19:28
species can adapt
19:30
beyond certain temperatures adaptation
19:33
is no longer possible for some
19:37
our report is a blueprint for our future
19:41

on this planet
19:42
it recognizes the interdependence of
19:45
climate ecosystems and biodiversity and
19:49
people
19:50
it integrates natural ecological social
19:54
and economic sciences more strongly than
19:57
in earlier ipcc assessments
20:01
it provides new knowledge and
20:03
information at regional levels and
20:06
focuses on cities where the majority of
20:09
people live
20:11
and opportunities for adaptation and
20:13
mitigation arise
20:16
critically this report highlights the
20:18
importance of including and using
20:21
diverse forms of knowledge such as
20:23
indigenous and local knowledge
20:27
but most importantly it emphasizes the
20:31

urgency of immediate and more ambitious
20:34
action to address climate risks
20:38
half measures are no longer an action
20:42
thank you
20:45
thank you chair for these compelling
20:46
remarks i now invite the secretary
20:48
general of the world meteorological
20:50
organization peter itales to take the
20:52
floor
20:56
today we are releasing the second part
20:58
of the ipcc sixth assessment report wmo
21:02
is proud to be the co-hosting and
21:05
founding organization of ipcc
21:09
the physical science bases report was
21:11
published in august
21:13
today we are talking about already very
21:15
visible
21:16
impacts of climate change
21:19

the report says that climate sense
21:21
induced by us humans has caused
21:24
widespread negative impacts to nature
21:28
people
21:29
beyond natural climate variability
21:32
altogether 127 risks have been
21:35
identified covering very
21:37
wide range of
21:38
sectors
21:40
like health
21:41
agriculture
21:43
economy infrastructure and ecosystems
21:48
our atmosphere today is on steroids
21:51
doped with fossil fuels
21:54
this is already leading to stronger
21:56
longer and more frequent extreme weather
21:59
events
22:01
climate change induced disasters come
22:04

with high human and economic impacts
22:07
more than four four
22:08
in ten people in the world live in
22:11
contexts
22:12
highly vulnerable to climate change
22:15
global hotspots are found in parts of
22:18
africa
22:19
southern asia
22:20
small island developing states and
22:23
central and south
22:24
america in many of those countries
22:27
population growth
22:29
urbanization
22:30
and unsustainable development practices
22:33
are boosting the exposure of people and
22:36
ecosystems to climate change
22:39
but all countries are affected as we
22:41
have seen in germany united states and
22:45

canada
22:46
last year
22:48
it is essential to raise the ambition
22:50
level of climate mitigation
22:53
that would also have a positive impact
22:55
on air quality
22:56
and is vital to tackle the looming water
22:59
crisis and sea level rise
23:02
climate mitigation offers also great
23:04
business opportunities in many sectors
23:07
like energy
23:08
transport industry and nutrition
23:13
besides mitigation it is more and more
23:15
critical to pay attention to adaptation
23:18
since the negative trend in weather
23:19
extremes will anyhow continue for the
23:22
coming decades
23:23
and sea level rise for centuries due to
23:26

the record high concentration of carbon
23:29
dioxide
23:31
one of the powerful ways to adapt is to
23:33
invest in early warning services but the
23:36
basic weather and climate observing
23:37
networks
23:38
have severe gaps in africa and island
23:41
states
23:42
only half of the 193 members of wmo have
23:46
proper weather climate and hydrological
23:48
services this leads to higher human and
23:52
economic losses
23:54
thank you very much
23:57
thank you secretary general talas for
23:59
these important remarks i now invite
24:01
inge anderson
24:03
the executive director of unep united
24:06
nations environment program to take the
24:07

floor
24:09
thank you so much and to you professor
24:12
husang li to you petri my colleague
24:15
of course abdullah moxie secretary of
24:17
ipcc and to the co-chairs dr debra
24:20
roberts and dr hans otto portner
24:23
and to the my amazing and formidable
24:25
ipcc scientific community and friends
24:28
greetings from nairobi we are in the
24:31
midst of united nations environment
24:33
assembly
24:34
which
24:35
gathers here to look at environmental
24:38
issues and this report comes
24:40
at a time of great turmoil when we need
24:43
strong multilateralism to promote peace
24:45
and healthy environment and the message
24:47
this report sends is clear
24:49

climate change isn't lurking around the
24:51
corner waiting to pounce it's already
24:54
already upon us raining down blows on
24:57
billions of people
24:59
we're seeing dangerous disruption across
25:01
the natural world
25:03
species are migrating in such more
25:05
livable conditions
25:06
in climate risk hot spots deaths from
25:09
floods droughts or storms were 15 times
25:13
higher than those in more resilient
25:15
countries over the last decade
25:17
this is climate injustice particularly
25:21
for indigenous people and local
25:24
communities
25:25
and all of this and more at only 1.1
25:28
degrees celsius of global warming
25:30
even if we limit global warming to 1.5
25:33

degrees celsius the blows will come
25:36
harder and faster
25:38
as things stand we're heading to closer
25:40
to three degrees celsius we are in an
25:43
emergency heading for a disaster
25:47
we can't keep taking these hits and
25:50
treating the wounds
25:51
soon those wounds would be too deep too
25:54
catastrophic to heal
25:56
we need to soften and slow the blows by
26:00
cutting greenhouse gas emissions but we
26:02
also need to cushion the blows by
26:05
picking up our efforts to adapt to
26:07
climate change which have been too weak
26:10
for too long
26:11
the best way to do this is to let nature
26:14
do the job it spends millions of years
26:17
perfecting absorbing and channeling rain
26:20

water and surging waves maintaining
26:23
biodiversity and balance in the soils so
26:26
that diverse plants can grow providing
26:29
cooling shade under leafy canopies
26:33
we need large-scale ecosystem
26:35
restoration from ocean to mountaintop
26:38
including through agreeing to start
26:40
negotiations on the global plastic
26:42
pollution agreement here in nairobi at
26:45
the fifth united nations environment
26:47
assembly we need to bring nature into
26:50
baking hot cities to keep them cool we
26:53
need to conserve mangroves coral reefs
26:56
and other nature's defenses we need to
26:59
protect and restore wetlands for nature
27:02
and incorporate wetlands into our cities
27:06
backing nature
27:07
is the best way to adapt to and to slow
27:11

climate change while providing jobs and
27:14
boosting economies
27:16
we must start dedicating thought and
27:18
funding to transformational adaptation
27:21
programs with nature at their heart
27:24
humanity has spent centuries treating
27:27
nature like its worst enemy
27:30
the truth is
27:32
that nature can be our savior
27:35
but only if we save it first thank you
27:41
thank you director anderson for these
27:42
thoughtful remarks
27:44
we will now hear the presentation of
27:47
the report's findings from the co-chairs
27:49
of the working group to
27:51
dr debra roberts and dr hans otto
27:53
pertner
27:58
thank you andre it's indeed a great

28:00
pleasure to welcome the global community
28:02
to the start of a really important
28:03
global conversation
28:05
where i and my fellow co-chair will
28:07
present the outcomes of five years of
28:10
hard work by the global scientific
28:11
community so welcome everyone
28:14
around the world
28:34
can we bring up the presentation please
28:39
firstly thank you to everyone for
28:41
joining us and certainly as the
28:42
co-chairs of working group 2
28:45
and on behalf of our authors we are very
28:47
proud to present this latest report from
28:50
the intergovernmental panel on climate
28:52
change which focuses on climate change
28:54
impacts adaptation and vulnerability
28:59
270 authors from 67 countries have

29:02
worked tirelessly to produce this report
29:05
over the last five years they have
29:07
assessed 34 000 scientific papers to
29:11
prepare their findings
29:13
during the review process they
29:15
considered each one of 62
29:17
418 comments
29:20
from experts and governments which have
29:22
helped make the report as comprehensive
29:24
and clear as possible
29:26
we would like to thank everyone who has
29:28
contributed to this process
29:31
let us now share some of the key
29:32
findings which reflect our growing
29:34
scientific knowledge and provide the
29:36
best understanding yet of climate change
29:39
impacts
29:40
risks

29:41
options to adapt and the limits we face
29:45
perhaps this statement best summarizes
29:47
our findings
29:49
the scientific evidence is unequivocal
29:53
climate change is a threat to human
29:55
well-being and the health of the planet
29:58
any further delay in concerted global
30:01
action will miss the brief
30:04
and rapidly closing window to secure a
30:07
livable future
30:09
this report offers solutions to the
30:11
world
30:12
and in the next 20 minutes we will
30:14
explore these with you
30:16
but let's start with the impacts
31:19
sorry for this technical glitch let's
31:21
start from the beginning
31:23
global warming from one of 1.51 degrees

31:26
celsius has caused dangerous and
31:29
widespread disruption in nature the
31:32
increased frequency intensity and
31:34
duration of extreme events on land and
31:37
in the ocean is driving mars mortalities
31:40
for example in trees as we show here in
31:43
this drought-stressed forest in
31:45
california
31:46
usa
31:47
and climate change is affecting the
31:50
lives and livelihoods of billions of
31:52
people
31:54
the impacts from human induced
31:56
intensification of tropical cyclones sea
31:59
level rise and heavy rainfall have
32:02
resulted in increased losses and damages
32:06
impacts are magnified in cities
32:09
where more than half the world's

32:11
population lives
32:12
heat waves amplify urban heat islands
32:15
and air pollution to affect people's
32:18
health
32:19
critical infrastructure such as
32:21
transport water sanitation and energy
32:24
systems have been compromised by extreme
32:28
events
32:28
[Music]
32:30
when multiple extreme events happen at
32:32
the same time they compound the overall
32:35
risk and are more difficult to manage
32:38
what we see here is an example of how
32:40
heat and drought combine to cause
32:42
reduction in crop yields
32:44
made worse by reduced productivity
32:46
because of heat stress amongst farm
32:48
workers

32:49
reduced yields lead to reductions in
32:51
household incomes
32:53
increased food prices locally and
32:55
potentially globally climate risks do
32:58
not respect national boundaries and
33:00
weather related extremes are creating
33:02
shocks to global trade
33:04
in the previous slide we illustrated the
33:06
powerful impacts of climate change on
33:08
nature and people's lives
33:11
in this assessment it is based on a new
33:14
understanding of these interconnections
33:16
we can no longer think in silos but have
33:19
to look across climate biodiversity and
33:22
human society and well-being if we want
33:24
to tackle the many global challenges we
33:26
face today
33:28
and talking of other challenges

33:30
climate change combines with
33:32
unsustainable use of natural resources
33:35
habitat destruction deforestation
33:38
and growing urbanization as well as in
33:40
equity and marginalization
33:43
these trends not only present threats to
33:46
ecosystems and the people who rely on
33:48
them but also reduce the capacities of
33:50
nature communities and individuals to
33:53
adapt to climate change
33:55
3.3 to 3.6 billion people live in global
33:59
hot spots of high vulnerability to
34:01
climate change
34:03
these are across large parts of africa
34:06
as well as south asia
34:08
central and south america
34:10
small islands and the arctic
34:13
in these global hot spots overlapping

34:15
challenges include limited access to
34:18
water
34:18
sanitation and health services
34:21
high levels of climate sensitive
34:23
livelihoods such as smallholder farmers
34:26
and fishing communities all increase
34:28
vulnerability
34:29
high levels of poverty weak leadership
34:32
lack of funding lack of accountability
34:35
and trust in government also play a part
34:40
looking to the future every small
34:42
increase in warming will result in
34:45
increased risks to nature and to people
34:47
in every region of the world
34:50
here we see a bleached coral colony on a
34:52
dying reef of okinawa japan
34:56
let's consider some of these projected
34:58
impacts on nature

35:01
this map gives an overview of
35:03
biodiversity loss at different warming
35:06
levels
35:08
we would see species extinctions and
35:10
losses of entire ecosystems such as
35:14
mountain tops tropical coral reefs and
35:16
coastal wetlands
35:18
even if we temporarily exceed 1.5
35:21
degrees warming for several decades
35:24
the risk of extinction in biodiversity
35:27
hotspots increases by about 10 fold as
35:31
warming rises from 1.5 to 3 degrees
35:35
celsius
35:37
nature services support all aspects of
35:40
our lives
35:42
from pollination and tourism to health
35:44
and climate regulation
35:47
loss of ecosystems and their services

35:50
has cascading and long-term impacts on
35:52
people globally
35:54
especially for indigenous peoples and
35:56
local communities who directly depend on
36:00
them
36:01
globally
36:02
population exposure due to heat waves
36:05
will continue to increase with
36:08
additional warming
36:09
at approximately 2 degrees celsius
36:12
regions that are highly dependent on
36:15
snowmelt could experience a 20 decline
36:18
in water availability for agriculture
36:21
beyond 2050
36:24
and we know that climate change will
36:27
undermine food security at 2 degrees
36:30
warming by 2050 people in sub-saharan
36:34
africa south asia

36:36
central and south america and on small
36:39
islands are likely to experience food
36:42
shortages
36:43
leading to malnutrition
36:46
about a billion people
36:48
living in low-lying cities and other
36:50
settlements on the coast are projected
36:53
to be at risk from sea level rise
36:56
and other climate hazards by mid-century
36:59
we provide a global perspective here but
37:02
this report
37:03
also has an extensive regional
37:07
we have outlined the challenges we face
37:10
and how they will increase at higher
37:13
warming levels
37:14
the key question now is how well are we
37:17
adapting to changing climate
37:20
what we show is that action has

37:23
increased but progress is uneven and we
37:26
are not adapting fast enough
37:29
growing public and political awareness
37:32
of climate impacts and risks has
37:34
resulted in at least
37:36
170
37:37
countries and many cities
37:40
including adaptation in their climate
37:42
policies and planning
37:45
however
37:46
there are increasing gaps between
37:48
adaptation action taken and what's
37:51
needed
37:53
these gaps are largest among lower
37:55
income populations
37:58
at the current rate of planning and
38:01
implementation
38:02
these adaptation gaps will continue to

38:05
grow
38:06
[Music]
38:07
let's now turn our attention to how we
38:09
adapt and in this report we show that
38:12
there are feasible effective options we
38:14
can take to reduce the risk to people in
38:16
nature but their effectiveness decreases
38:19
with increasing warming
38:21
when we think of adaptation our first
38:23
thoughts must be around reducing flood
38:25
risk or preventing water shortages
38:28
but what we show is that the
38:30
strengthening of health systems can
38:31
reduce the impacts of infectious
38:33
diseases
38:34
heat stress and other climate related
38:36
risks as well as the trauma associated
38:39
with extreme events

38:41
this is particularly effective if it's
38:43
combined with other measures such as
38:45
disease surveillance early warning
38:47
systems and improving access to potable
38:49
water
38:51
nature offers significant untapped
38:54
potential
38:55
not only to reduce climate risks and
38:57
deal with the causes of climate change
38:59
but also to improve people's lives and
39:01
livelihoods
39:02
agroforestry is a climate resilient way
39:05
of growing food and creating wildlife
39:07
habitat
39:08
here we see a nigerian rubber farmer
39:10
diversifying his business with food
39:12
crops fruit trees and bees
39:15
conservation protection and restoration

39:19
can help natural forests to adapt
39:22
planting a range of tree species
39:24
managing pests and diseases and reducing
39:27
wildfire risk can help build climate
39:29
resilience in managed forests
39:32
in agriculture irrigation can be
39:35
effective but it can also result in
39:37
adverse outcomes such as accelerated
39:39
depletion of groundwater
39:41
this and other adaptation measures
39:43
provide economic and ecological benefits
39:46
as well as reducing vulnerability
39:49
in urban areas and elsewhere effective
39:52
urban management can secure drinking
39:54
water
39:55
most action to date has occurred around
39:57
water related hazards such as reducing
39:59
the risk from floods and droughts

40:02
letting nature take its course such as
40:04
restoring wetlands and rivers and
40:06
creating no build zones can reduce flood
40:08
risks
40:09
the effectiveness of most water-related
40:11
adaptation declines with increasing
40:13
warming
40:16
food security can be enhanced by making
40:19
the food system more resilient for
40:22
example
40:23
through adopting stress tolerant crops
40:25
and livestock agroforestry and
40:27
diversification on farms
40:30
community-based adaptation
40:33
that is locally driven that respects
40:35
ocal and indigenous knowledge systems
40:38
and is adequately resourced can also be
40:41
effective

40:43
strengthening biodiversity can improve
40:45
pest control
40:47
pollination carbon storage and it can
40:50
provide shade
40:51
for temperature sensitive crops such as
40:54
coffee and cacao
40:56
this all brings a range of other
40:59
benefits for nutrition health and
41:01
well-being
41:02
and livelihoods
41:04
by 2050
41:06
urban areas could be home to two-thirds
41:09
of the world's population
41:11
cities also offer opportunities to
41:14
transform
41:16
using nature and engineering approaches
41:19
together is important
41:21
to manage flood risk for example it

41:24
might be important to install flood
41:26
proofing on buildings
41:28
improve drainage along roads and create
41:31
space for water within the city
41:34
at the same time as constructing flood
41:37
defenses
41:39
establishing
41:40
or restoring
41:42
green and blue spaces parks green
41:44
corridors ponds and wetlands as well as
41:48
urban agriculture can all be woven into
41:52
the built environment
41:54
social safety nets for disaster
41:57
management can help people overcome the
42:00
impacts of climate change and can
42:02
provide financial security
42:06
additional benefits
42:08
include public health improvements

42:10
especially from reducing heat stress and
42:13
ecosystem conservation
42:16
in informal settlements we show how
42:18
local knowledge adequate funding skills
42:21
and tools as well as policy makers and
42:24
residents working together can deliver
42:27
adaptation at a city scale
42:30
accountability transparency and
42:33
commitment from government is also most
42:36
important
42:38
here we see community sanitation
42:40
facilities being built and water tanks
42:43
being installed in informal settlements
42:46
in india
42:49
we have evidence of male adaptation
42:51
adaptation that results in unintended
42:54
consequences
42:55
for example increased climate

42:56
climate-related risks or increased
42:59
greenhouse gas emissions
43:01
in this photograph on the left are sea
43:03
defenses that may not be strong enough
43:04
to protect the people living behind them
43:07
people can be lulled into a false sense
43:09
of security
43:11
compare this to an example from delaware
43:13
in the usa of how it's possible to use
43:16
nature to provide flood protection
43:18
indigenous peoples ethnic minorities and
43:21
disadvantaged groups for example
43:23
low-income households and those living
43:25
in informal settlements are some of the
43:27
most affected by male adaptation
43:30
this reinforces and entrenches existing
43:33
inequalities
43:35
we know that there are adaptation limits

43:38
adaptation cannot prevent all losses and
43:41
damages
43:42
and even with effective adaptation
43:45
limits will be reached with higher
43:46
levels of warming
43:48
some natural solutions will no longer
43:50
work above 1.5 degrees celsius warming
43:54
above 1.5 degrees celsius a lack of
43:57
fresh water could mean that people
43:58
living on small islands and those
44:00
dependent on glaciers and snowmelt can
44:03
no longer adapt
44:04
and by 2 degrees celsius it may be
44:06
especially challenging
44:08
to farm multiple staple crops in many
44:11
current growing areas particularly in
44:13
tropical regions
44:15
if we focus on financial constraints we

44:18
see that current global financial flows
44:20
are insufficient
44:22
especially in developing countries
44:25
the overwhelming majority of global
44:27
tract climate finance was targeted at
44:30
emission reductions while a small
44:32
portion went on adaptation
44:35
climate impacts that result in higher
44:37
levels of losses and damages
44:39
also slow down economic growth and thus
44:42
reduce the availability of financial
44:44
resources
44:47
to avoid mounting losses urgent action
44:51
is required to adapt to climate change
44:54
but
44:55
that's not enough
44:57
at the same time it is essential to make
44:59
rapid deep cuts in greenhouse gas

45:02
emissions
45:03
to keep the maximum number of adaptation
45:06
options open
45:08
so how do we accelerate
45:11
and sustain adaptation
45:13
political commitment and follow through
45:16
across all levels of government is key
45:20
greater adaptation is present where
45:22
national climate laws and policies
45:26
require adaptation action from lower
45:28
levels of government and include
45:30
guidelines on how to do this
45:33
another area worth focusing on is
45:36
institutional frameworks with clear
45:38
goals and priorities
45:40
that define responsibilities
45:43
these frameworks can impose duties upon
45:46
governments to implement adaptation

45:48
actions
45:49
for example around conservation
45:52
sustainable use of beaches urban
45:54
development and targeting diseases
45:57
exacerbated by climate change
46:00
enhancing knowledge of impacts risks and
46:03
available adaptation options encourages
46:06
actions from society and policy makers
46:10
educational and information programs and
46:13
the arts can play a part
46:16
monitoring and evaluation is important
46:19
to track progress because in a warming
46:22
world at measures that are effective now
46:25
might not work in 20 years
46:28
adaptation strategies might have to be
46:31
revised constantly
46:33
revisions should be fact and data driven
46:38
and finally

46:39
inclusive governance
46:41
that prioritizes equity and justice is
46:44
also important
46:46
citizens civil society organizations
46:49
should participate directly in planning
46:52
and decision making
46:54
it's important to highlight that
46:56
adaptation measures offer wider benefits
47:00
if we consider
47:01
that 3.4 billion people living in rural
47:04
areas many of whom are highly vulnerable
47:07
to climate change
47:09
resilience can be improved by providing
47:11
social safety nets
47:13
improved roads reliable energy clean
47:16
water and improved food security
47:20
these measures not only build climate
47:22
resilience but they also go hand in hand

47:26
with helping to lift people out of
47:28
poverty
47:29
and achieving the united nations
47:31
sustainable development goal one
47:34
these other simple examples demonstrate
47:38
how different goals
47:39
may be achieved in a variety of
47:42
circumstances
47:45
in this report
47:47
we have looked at these synergies in
47:50
some depth
47:52
and this is how we illustrate the
47:54
multiple benefits of adaptation options
47:58
if you look at this figure you see
48:00
forest-based adaptation
48:03
it shows
48:04
that it is a feasible adaptation option
48:08
that will also help absorb and store

48:10
carbon
48:12
so it has mitigation potential
48:14
and it helps achieve multiple
48:17
sustainable development goals marked
48:19
here with a plus
48:21
likewise
48:24
if we look at options in our cities
48:26
we see that green infrastructure
48:29
green roofs parks and street trees play
48:32
a part in helping us adapt
48:35
by providing shade and water management
48:39
they also absorb and store carbon
48:42
again they help with multiple un goals
48:46
what we see here is the foundation
48:49
for a solutions framework that is an
48:51
important new concept in this report
48:56
let's explore this now
48:58
if we look at this figure

49:00
we see a spectrum of futures from a
49:03
world with low resilience and high risk
49:06
to one
49:07
with high resilience and low risk
49:11
this high resilience low risk future
49:14
and world has reduced climate risks
49:17
through adaptation
49:19
reduced greenhouse gas emissions through
49:21
mitigation
49:22
and enhanced biodiversity
49:25
these measures together
49:27
support sustainable development for
49:29
example no poverty
49:32
zero hunger good health and well-being
49:35
and access to clean water and sanitation
49:39
this concept is climate resilient
49:41
development
49:44
climate resilient development has to be

49:46
considered across government and all of
49:49
civil society it should involve everyone
49:52
round the table governments
49:55
citizens communities educational
49:57
institutions the media investors and
50:00
businesses forming partnerships
50:04
scientific indigenous and local
50:06
knowledge and practical know-how come
50:09
together to provide more relevant
50:11
effective options
50:13
ecosystem stewardship is key
50:16
a healthy planet is fundamental to
50:18
climate resilient development
50:21
effective and equitable conservation of
50:23
approximately 30 to 50 percent
50:26
of land fresh water systems and oceans
50:29
can help ensure a healthy planet
50:33
involving traditionally marginalized

50:35
groups including women
50:37
young people indigenous peoples local
50:39
communities and ethnic minorities
50:42
improves the prospects for effective
50:44
action
50:45
it is critical to prioritize equity and
50:48
justice in decision making and
50:50
investment
50:51
different interests values and
50:53
worldviews can be reconciled if everyone
50:56
works together
50:58
scaled-up investment and international
51:00
cooperation are also important
51:05
starting today every action every choice
51:09
and every decision matters
51:11
because each of them can take us away
51:13
from
51:14
or towards a climate resilient

51:16
sustainable world
51:18
worldwide action to achieve climate
51:20
resilient and sustainable development
51:23
is more urgent than previously assessed
51:28
climate resilient development is already
51:30
challenging at current global warming
51:33
levels
51:34
the prospects will be further limited if
51:37
global warming exceeds 1.5 degrees
51:40
celsius
51:41
and may not be possible in some regions
51:44
including small islands
51:46
deserts mountains and polar regions if
51:50
warming exceeds 2 degrees celsius
51:53
the science is clear
51:56
any further delay in concerted global
51:58
action will miss a brief
52:00
and rapidly closing window to secure a

52:03
livable future
52:05
this report offers solutions to the
52:08
world
52:09
this presentation
52:10
has given you a snapshot
52:12
of a wide range of topics that are
52:14
covered in depth in this report it's
52:18
over to you now
52:19
thank you
52:23
thank you dr roberts and dr partner for
52:24
the for your presentation
52:26
we will now turn to questions before we
52:28
do that just to note that in addition to
52:30
the summary for policy makers the
52:33
technical summary and full report we
52:36
also have several other resources
52:38
including a global to regional atlas we
52:41
have also extracted critical regional

52:43
information into a series of fact sheets
52:46
all these materials are available on the
52:48
ipcc website
52:50
to the questions now and for the first
52:53
one i will be looking for a brief
52:55
comments from both co-chairs it's from
52:57
seth bornstein
52:58
with the associated press
53:01
can you address the sense of gloom and
53:03
foreboding in the future painted here
53:06
how less livable a world do you see if
53:08
major emission cuts and adaptations
53:10
aren't made and how big a problem do you
53:13
see climate immigration and
53:15
climate-connected conflict in 2014
53:19
sorry in 2040 and in 2100
53:22
sorry in 2020 in 2100
53:29
dr roberts

53:31
thank you so much for that question i
53:33
would rephrase that i don't think the
53:35
report gives a sense of gloom
53:37
what it does do though is it gives a
53:39
very serious reality check about where
53:41
we are
53:42
where we might go to but also provides
53:45
us with the sense that we can be agents
53:47
for change
53:48
if we look at the challenges that we're
53:50
currently facing a lot of those can be
53:53
addressed by creating more equitable and
53:55
sustainable world by developing a new
53:57
social compact with the planet that we
54:00
live on and by focusing our attention
54:02
where we get most bang for the buck
54:04
protecting nature as has been previously
54:06
mentioned but also using the opportunity

54:09
to change the places where the majority
54:10
of people live in our cities
54:12
so i think that's the important message
54:14
to take forward a difficult reality but
54:17
action is possible and we need to do it
54:20
now
54:21
dr portner
54:26
your microphone adding to this thank you
54:28
thank you adding to this is
54:31
an important aspect that
54:33
the choice should not be gloom and doom
54:36
the options are clear and the choices
54:38
are clear so the world has
54:41
a limited time bond or available to move
54:44
on on the right track
54:47
and
54:48
this understanding needs to evolve among
54:51
policy makers and among society

54:54
and
54:54
i think the
54:56
what what this indicates that we see
54:58
currently an inertia in implementation
55:01
and that we currently see a large
55:03
implementation gap is that this comes
55:06
together with an education gap and an
55:09
information gap so the collaboration of
55:12
science and the media is important but
55:14
what is also important is to improve the
55:17
understanding of these basic rules of
55:20
how life best functions on our planet
55:24
and what is also important that there
55:26
are natural laws that we should not
55:29
break
55:30
and that should not be broken in similar
55:33
ways as we do not cross thread traffic
55:35
slides in in our cities

55:38
so this is
55:39
i think a point of orientation and our
55:42
report provides that orientation
55:46
by following these options it gives us
55:48
hope that the sustainable and climate
55:51
resilient world can be achieved
55:55
thank you very much the next question
55:57
is for
56:00
dr roberts the report paints a green
56:02
prospect for africa and small islands
56:04
developing states other alternative
56:06
solutions for short and long term
56:09
uh to alter direction from grim
56:11
opportunities
56:14
thank you so much for that question
56:16
indeed as i said before the report is a
56:19
real reality check and it's particularly
56:21
a reality check for the developing areas

56:24
of of the globe africa has called out
56:26
the small island states asia
56:29
central and south america but there are
56:31
also the prospects for dynamic change in
56:33
those areas if we see for example a
56:35
change in financial flows around the
56:38
world an investment in sustainable
56:40
development in these areas if we take
56:42
bold action in terms of emission
56:44
reduction then much can be done to
56:46
reduce the exposure and vulnerability of
56:49
areas such as the small island states
56:51
africa particularly where i come from
56:53
has an enormous opportunity in terms of
56:56
very rich
56:57
natural heritage to take that and use
57:00
that as an increased adaptive capacity
57:03
to deal with climate change both its

57:05
impacts but also the impacts that it has
57:09
across our economies across our
57:11
development options so i think while
57:13
these areas are threatened there is no
57:16
doubt that there is room for improvement
57:18
both in terms of global partnerships to
57:20
foster sustainable development but also
57:22
to use the enormous natural sources of
57:24
continents like africa as a way to
57:26
tackle the climate change challenge
57:30
thank you very much
57:32
question for both co-chairs if
57:34
increasingly this is from thomson
57:36
reuters
57:37
foundation if increasingly clear
57:39
warnings about the existential risks of
57:41
climate change are not driving anywhere
57:44
near sufficient action how do we drive

57:47
that needed action perhaps first to dr
57:50
portner and then to dr roberts quick
57:52
comments please things
57:54
well i'm afraid to say that increasing
57:57
climate change
57:58
and the associated impacts and and risks
58:01
and their implementation are certainly
58:04
an important motivation for the the
58:06
mobilization we need in society and in
58:10
policy
58:11
we have seen that with the release of
58:14
the 1.5 degree celsius report in 2018
58:19
which was bringing climate change close
58:22
to the individual on this planet and
58:25
this has started
58:27
a mobilization that i think
58:30
still needs to continue and still needs
58:32
to

58:33
be be strengthened
58:35
so calling out climate change as an ally
58:37
in that mobilization is certainly not a
58:40
good perspective we would rather like to
58:43
see the risks being reduced and those
58:46
impacts being avoided but climate change
58:49
already gives us strong examples of what
58:52
can happen if the if the climate system
58:55
is is brought out of the balance that it
58:57
has had for the last eight thousand
59:00
years during the time when human
59:02
civilization
59:04
was built
59:05
in in in that respect
59:07
making and bringing this close to the
59:10
thinking of policy makers and also of
59:13
society
59:14
is i think an important

59:17
task that will need to be fulfilled and
59:21
this the in-depth understanding will
59:24
mobilize the action and the resources
59:27
that are needed for this task
59:30
perhaps just building on that response i
59:33
think what is powerful about our working
59:35
group 2 report
59:37
is that we speak to the very places that
59:39
people live work and relax in we've got
59:42
a very strong regional focus
59:44
and i think that enables us to bring
59:46
messaging that increases the agency of
59:48
human society you will see that in this
59:51
report particularly we've got a very
59:52
strong focus on the issue of human
59:54
settlements urban areas rural
59:56
settlements and particularly in cities
59:58
where the majority of people live we

60:00
speak directly to the challenges that
60:02
cities are facing now the impacts on
60:04
infrastructure the increase in the heat
60:07
island effect and the challenges that
60:09
all of those pose to human health and
60:11
economic development but we also lay out
60:14
the solutions that may be available to
60:16
urban areas around the world to tackle
60:18
those challenges and i think it's by
60:21
providing that very clear line of sight
60:23
between where i live and the problems i
60:25
face to the kind of solutions i may be
60:28
involved in empowers people to take
60:30
action and i think we see that more and
60:32
more as the science becomes clearer and
60:34
relates more and more to people's lives
60:37
people mobilize more and so i'm still
60:39
optimistic about the ability to mobilize

60:41
extensively around this report and
60:44
create the kind of societal response
60:46
that we need to see
60:48
thank you very much to add to this once
60:50
more andre i'm sorry for interrupting
60:52
you
60:53
any short-term action and any compromise
60:55
with respect to to other sectors that
60:58
and compromises are an important part of
61:00
of the political thinking and action
61:03
should have the long-term implications
61:05
in mind
61:06
should consider the orientation for
61:08
example that our report
61:10
provides in in terms of what are the
61:13
implications for the long-term future if
61:15
things go wrong in in the short term and
61:18
this emphasizes the the thought about

61:21
the closing window of opportunity so
61:23
anything any decisions to be made during
61:26
this crucial decade in climate policy
61:29
are important for our long-term fate and
61:33
for the sustainability of life on this
61:35
planet thank you
61:37
thank you very much for that response
61:39
the next question is for the secretary
61:41
general of the world meteorological
61:43
organization
61:45
it is from thomson reuters foundation
61:47
the question is the report makes clear
61:49
that soft limits to adaptation are being
61:51
reached already including due to a lack
61:54
of finance despite the urgency
61:57
can this report finally shift the needle
61:59
in terms of spurring more adaptation
62:01
finance to the vulnerable and if so how

62:06
[Music]
62:08
thank you for that question uh
62:10
it's clear that we have to invest
62:13
more in adaptation
62:15
besides mitigation mitigation is of
62:17
course essential and we have to stop
62:19
this negative trend in in climate
62:22
and and that's that's very urgent as
62:25
as also this report because but besides
62:29
that we have to start investing in
62:30
adaptation because the negative trending
62:33
climate will continue
62:35
until 260s
62:37
independent of our success in climate
62:40
mitigation
62:41
and and working through one report which
62:43
was published
62:45
last august was demonstrating that that

62:48
the sea level rise and melting of the
62:49
glaciers
62:51
may continue for the coming hundreds of
62:53
years so that means that
62:55
that we have partly already lost the
62:57
battle and and we have to pay more
63:00
attention to how to media how to
63:02
mitigate
63:04
climate-related
63:05
risks and and this has to be taken into
63:08
account in
63:10
in various sectors in the society it's
63:13
going to affect
63:14
for security it's going to affect the
63:16
infrastructures it's going to
63:19
affect health and
63:20
and and it's going to hit also economies
63:24
very hard it was already demonstrated by

63:26
the
63:27
so-called stern report 15 years ago that
63:30
it's
63:32
it's
63:33
up to 20 times cheaper to
63:35
to to mitigate climate change than that
63:38
live with the consequences and now we
63:40
are we are already facing these
63:42
consequences and and they will become
63:45
stronger during the coming coming
63:47
decades anyhow and one powerful way to
63:50
adapt to climate change is to invest in
63:52
early warning services
63:54
which are in fairly poor shape in less
63:56
developed countries
63:58
and we have also major
64:00
gaps in the basic observing systems
64:02
especially in africa

64:04
caribbean pacific islands
64:07
which means that early warning services
64:10
the quality is poor there
64:12
and and we don't know where to adapt to
64:15
because we don't have the baseline so we
64:17
have to invest in both basic observing
64:20
systems and
64:21
early warning services and
64:23
take adaptation into account in many
64:26
sectors as this report is
64:28
is emphasizing
64:31
thank you very much for that response
64:33
the next question is for the chair of
64:35
the ipcc dr hua sungli as well as for dr
64:39
roberts
64:41
the question is it's from south china
64:43
morning post the question is the report
64:46
mentioned asia's risks and adaptation

64:48
options to climate change how do you
64:51
assess china's resistance to the risks
64:53
of water-related natural hazards energy
64:56
insecurity and asset losses as mentioned
64:59
in the report
65:07
ipcc there is an intergovernmental
65:10
panel on climate change issues and uh
65:14
we are not in the position of
65:16
commenting on specifically our member
65:19
government's policies and programs and
65:22
thus if
65:24
debra
65:25
dr roberts
65:26
wish to add please go ahead
65:30
yes thank you very much for for that
65:32
question if we look at the information
65:34
we provide on the area of asia generally
65:37
we can see that we've already got

65:39
millions of people
65:40
in places like asia which are subject to
65:43
of
65:44
acute
65:45
food and water challenges in the present
65:48
so this is not a forward-looking
65:51
issue we have millions of people already
65:54
affected by acute food and water
65:56
shortages now in places like asia and if
65:59
we think about a world of two degrees of
66:01
global warming then we know that under
66:04
those conditions even areas where we are
66:07
capable of growing staple crops now will
66:09
become unavailable for for cultivation
66:12
and so we can see the rate of challenge
66:14
is going to increase as every element of
66:17
global warming increases the level of
66:19
risk to which we are exposed the range

66:22
of impacts that we have to deal with and
66:24
so asia like many parts of the world
66:26
will have to deal
66:28
with severe
66:29
and
66:30
current food and water crises going
66:33
forward and that's the importance of
66:34
adaptation we need to think about new
66:36
ways of dealing with these problems and
66:39
our report talks to those solutions new
66:41
ways of cultivation new crop types
66:44
thinking about how we conserve our water
66:46
resources and and we know particularly
66:48
asia is critical
66:50
because they have the water towers of
66:52
the world in the mountains and so
66:54
thinking about those mountain ecosystems
66:56
and the conservation of those ecosystems

66:58
is important but that scale of
67:00
intervention is only possible if we've
67:02
got governance
67:04
that allows
67:05
all levels of activity to be coordinated
67:07
if we've got adequate financial support
67:10
and civil society is brought to the
67:12
table in order to participate in finding
67:14
solutions
67:16
thank you very much for that uh the next
67:18
question again quick responses from both
67:21
co-chairs the group one report said that
67:24
we are going to reach and the question
67:26
is from our newspapers in barcelona the
67:29
group one report said that we are going
67:30
to reach 1.5 degrees celsius no matter
67:33
what before 2040 and in the better case
67:36
scenario we may reduce it after that

67:39
then
67:40
your predictions about extinction of
67:42
species when we reach 1.5 degrees
67:44
celsius will be reached before 2040 for
67:47
sure what are the scenarios after that
67:50
dr portner first and perhaps then dr
67:53
roberts
67:54
yeah thank you thank you very much for
67:55
that question certainly we have
67:58
considered overshoot scenarios
68:00
in in our report and have also
68:03
considered their time duration and they
68:05
would last
68:06
uh several decades
68:08
until end of century before the
68:11
temperature would be falling again and
68:13
and during that time spent we expect the
68:16
same level of impact as if we would

68:19
uh have a stabilized level of increased
68:23
increased warming at higher higher
68:25
temperatures
68:26
it is fully in line with the statement
68:28
that every bit of warming matters so
68:33
moving towards
68:34
overshoot scenarios is is not a safe
68:37
haven that this strategy might might
68:41
promise it will
68:43
also lead to irreversible consequences
68:46
the melting of polar ice sheets will be
68:48
increased sea level rise
68:50
will be increased
68:51
the loss of habitat and species with the
68:54
potential for local extinction patterns
68:57
will will also increase and there is an
69:00
increasing risk associated with those
69:02
higher temperatures of

69:05
species losses um in entirely as we have
69:09
projected in the in the report that this
69:12
uh increase is is occurring in terms of
69:15
the percent of of species
69:18
increasing with increasing degrees of
69:20
warming
69:21
over this overshoot
69:23
this exclude
69:26
going for overshoot as a valid strategy
69:28
in climate uh mitigation
69:32
I think an important addition to that
69:34
and and really the core dna of of the
69:36
story we tell in the working group 2
69:38
report is how closely human and natural
69:40
systems are interconnected and as hunts
69:43
has pointed out we have systems such as
69:46
mountain tops coral reefs and others
69:49
coastal wetlands which will be

69:51
challenged in a
69:53
scenario of overshoot and this is
69:55
critical because we're not only talking
69:56
about the loss of ecosystems we're
69:59
talking about the loss of ecosystems
70:00
that are absolutely critical to
70:02
underpinning the livelihoods often of
70:04
the most vulnerable in the world and so
70:06
this really raises the profile of the
70:09
adaptation agenda because we need to
70:11
think about not only how we adapt to
70:14
those changes in ecosystems are there
70:16
things we can do by increasing
70:17
conservation areas management
70:20
looking for a future but what do we do
70:22
with the human societies that are
70:25
impacted by these changes and again this
70:27
talks to the need to tie in our climate

70:29
change response
70:30
to a strong development response so that
70:32
vulnerable communities have social
70:34
safety nets we put in place basic
70:36
infrastructure we think about
70:37
realignment of financial resources and
70:40
so our report really speaks to this
70:41
complex interrelationships of problems
70:44
that we all need to get around the table
70:46
to solve
70:48
thank you very much
70:49
dr roberts the next question is for you
70:51
also you mentioned cities being key
70:54
sites for positive climate action what
70:57
are some of the most effective systems
70:59
and strategy
71:00
strategies you have seen work
71:02
practically on a city-wide level and

71:05
what enhances their efficacy efficacy
71:10
there's no doubt that cities offer us an
71:13
important global scaled but time limited
71:16
opportunity to act to increase our
71:18
adaptive capacity the majority of us
71:21
already live in urban areas and cities
71:23
and certainly by the middle of the
71:24
century two-thirds of us will be living
71:27
in urban areas
71:28
the opportunities in urban areas are
71:31
multiple around planning and design of
71:34
infrastructure
71:35
bringing nature back into the city so
71:38
often we've thought about nature as
71:40
something that occurs outside city
71:42
borders but our report points out very
71:45
clearly that if we bring nature back
71:46
into the city protect our flood plains

71:49
have trees along our streets we can do a
71:52
great deal to increase our adaptive
71:54
capacity to deal with impacts of floods
71:56
heat stress improve health and so
71:58
there's a real advantage in
72:00
reconceptualizing our cities not only as
72:02
a place of people but a place of nature
72:06
we also need to know though that amongst
72:08
our cities there's a subset the coastal
72:10
cities and we know that we will have
72:12
about a billion people
72:14
living in low-lying coastal areas by the
72:16
middle of the century that are
72:18
particularly at risk and they're
72:20
particularly at risk because of the
72:22
impacts of sea level rise salination
72:24
flooding heavy rainfall and those are
72:27
areas we would probably need to act on

72:30
initially because there are areas of
72:32
high economic activity connectivity to
72:34
inland areas and because of the range of
72:37
risks they're exposed to and in those
72:39
areas we would need to think for example
72:41
about coastal defenses moving away from
72:44
hard sea walls to more productive
72:46
coastal ecosystems early warning systems
72:50
to enable people to know when risks are
72:53
emerging and to make suitable plans
72:55
to factor in that we need good
72:57
governance and that if one wants decent
72:59
responses to the challenges that many of
73:02
these areas would
73:03
face we have to have everyone around the
73:05
table agreeing on the plans and this
73:07
includes the most vulnerable and the
73:09
report is really important because it

73:11
focuses us not only on the formal
73:14
aspects of urban development but calls
73:16
off very strongly the informal
73:17
settlements around the world where many
73:19
of the most vulnerable live and calls
73:21
for a specific focus
73:23
on these and a call to start investing
73:26
in our informal settlements to change
73:28
the tide both literally and
73:30
figuratively thank you dr roberts next
73:33
one for dr portner
73:35
with this is from cnn with everything
73:37
going on how would you like this report
73:40
to be interpreted and prioritized by
73:42
policy makers and the world at large and
73:45
what do you expect from journalists to
73:47
help keep the momentum going in the
73:49
coming months and years

73:52
thank you very much for for this
73:54
important question
73:56
the report talks about the impacts risks
73:59
it also talks about our possibilities to
74:02
adapt and and brings those solution
74:05
options to the fore
74:07
talking also about the effectiveness and
74:09
their feasibility but most importantly
74:12
we also talk about mal adaptation and we
74:14
talk about adaptation limits and these
74:17
adaptation limits together with
74:20
the the information about risk provide
74:23
orientation for the action of policy
74:26
makers and also
74:28
which future to go for
74:31
and and this reports
74:33
strengthens uh the message around
74:37
the agreement reached with

74:39
with the paris agreement and it
74:42
strengthens to move and push for the
74:44
more ambitious side side of it with uh
74:48
by casting light on the most vulnerable
74:50
vulnerable ecosystems on the planet on
74:53
the most vulnerable people on the planet
74:56
and also on the challenges that actually
74:58
for some species and also for humans we
75:02
are starting to lose habitat in in the
75:05
most exposed areas of the planet which
75:09
are close to the equator in the ocean we
75:12
already seeing a development of a
75:14
biodiversity valley indicating
75:17
uh and as a consequence of species
75:20
moving out moving towards the poles
75:23
there are also some areas
75:25
on the on the planet that are
75:29
represent

75:30
environmental conditions where people
75:32
can no longer
75:33
be outside
75:35
and
75:36
this is representing the same for our
75:38
species as for others the loss of
75:41
habitat so these trends will be
75:43
strengthened with with climate change
75:45
and i think continued uh communication
75:48
between uh scientists and and
75:53
the media
75:54
as well as
75:55
policy makers is needed to to bring
75:58
those such information to the fore
76:01
and
76:02
as i said to provide the
76:05
the information for um
76:08
ambitious action and when i talk about

76:10
action i mean action along various lines
76:14
that
76:15
consider the
76:17
interactions between nature human
76:19
society and and the climate system and
76:22
correct for the current imbalances that
76:24
we see in these interactions due to
76:28
the the changing climate we are
76:31
currently observing in terms of
76:33
motivating
76:35
policymakers i think it needs a mix of
76:38
of actions as i said in the short term
76:40
the information flow from science to
76:42
policymakers and carried forward through
76:45
the
76:46
media emphasized by the media also the
76:49
media reporting uh from the the societal
76:53
engagement and mobilization that is

76:55
happening is is key but there is also
76:59
urgency in developing the education
77:02
systems
77:03
both the the the lower and higher
77:06
education systems towards
77:08
uh
77:10
aspects and curricula that consider
77:12
these existential challenges
77:15
to humankind which will be with us for
77:17
decades and maybe even centuries
77:20
to come and educating the young
77:23
and informing the adult
77:25
population about these challenges will
77:28
be key
77:29
for ambitious global action thank you
77:32
thank you very much for that response
77:34
the next question is from la repubblica
77:36
for dr roberts do you think individual

77:39
change that means change of way of life
77:43
is important at the same level of
77:45
government and cooperation
77:48
or people have to wait before a strong
77:51
commitment at an ins at an institutional
77:54
level first thank you
77:57
thank you so much for that important
77:58
question because it speaks to each one
78:00
of us and the way we live our lives and
78:02
I think our report is very clear
78:05
it indicates that this has to be a whole
78:07
of society response
78:09
so not a single individual community
78:12
city or government can opt out we all
78:14
need to opt in to the solution and a key
78:17
part of that is obviously the way we
78:19
live our lives the choices we make
78:22
about how we live those lives but

78:23
importantly how we use our sense of
78:26
agency in the world
78:28
how we engage with governance processes
78:31
you know how we engage with leadership
78:32
in our communities the kind of
78:35
priorities we express about the kind of
78:37
world we want to see which will
78:39
influence policies so all of this is
78:41
critical the individual can play a vital
78:43
role through the choices and actions
78:45
they take and make in their lives there
78:48
are many things that individuals cannot
78:50
change and that rely on governments at
78:53
all levels local provincial regional
78:56
national international to act and we
78:58
need that to be concerted
79:00
but again governments by themselves
79:02
can't act alone and we must see the

79:04
private sector coming to the table as
79:06
well and so it requires all of us to be
79:08
playing our part in different ways but
79:11
ensuring that those actions are fully
79:13
integrated i think this is what has been
79:16
very clearly made
79:17
as as a point in our report is that
79:19
while action is happening it's not rapid
79:22
enough and it's uneven so various
79:25
elements of society are acting others
79:27
aren't and we're not acting fast enough
79:30
and so it's a really strong call for all
79:32
of us to start doing the heavy lifting
79:34
that's going to ensure a just equitable
79:37
world and ensure that we have a
79:38
sustainable planet for many generations
79:41
still to come
79:42
thank you very much for that response

79:44
the next question is from the print in
79:46
ndia it's for both co-chairs so i'll be
79:49
ooking for quick responses there the
79:51
report talks about maladaptation how can
79:54
countries prevent maladaptation in the
79:57
ong run while also addressing
79:59
short-term needs what factors must
80:01
policy takers consider at planning stage
80:04
at the planning stage
80:06
uh dr portner and then dr roberts
80:09
yeah thank you for for this important
80:12
question and we saw examples of of this
80:14
on
80:15
on the slide as far as coastal building
80:18
of coastal defenses is
80:20
s concerned and it comes also to a
80:22
point
80:24
that i made earlier that for any uh

80:27
short-term decision and consideration
80:29
and possible compromise
80:32
between strategies the long-term
80:34
implement implications need to be
80:37
considered for example if you if you
80:41
develop strategies that meet the
80:43
short-term food requirements of the
80:45
local population but enhance ecosystem
80:49
degradation and and also the
80:52
soil and land degradation you you may
80:56
meet the needs of the
80:58
immediate adult and young population but
81:02
you erode uh the sustainability there
81:05
and you you bring
81:08
the food sources to an end for the next
81:10
generations another example is
81:14
the building of coastal defenses that
81:16
I've just referred to if

81:19
if you build
81:20
hard sea walls you are with increasing
81:23
sea level rise taking space away for the
81:26
natural ecosystems that
81:28
may help you the white floodplains the
81:31
salt marshes or mongrel forests that
81:33
would contribute to coastal
81:35
protection would would have only a
81:38
harrow
81:40
area uh available to them to begin with
81:43
and then this aerial arrow area would
81:45
shrink uh continually and then there
81:48
will be a point with increasing sea
81:50
level where the question is to what
81:51
extent and how high can you actually
81:54
build those sea walls so there may there
81:56
will be in that case abrupt adaptation
81:59
uh the limits which um then expose uh

82:04
the
82:05
local population to
82:07
extreme events such as intensive
82:09
flooding and so forth so that so shows
82:13
the challenges
82:14
of of combining information from climate
82:17
projections in that
82:19
aspect sea level rise projections and
82:21
the local action to be taken to protect
82:24
ecosystems and the population and
82:26
develop an integrated approach this also
82:29
argues
82:30
to bridge between silos
82:33
so
82:34
from a more general and global
82:35
perspective to just do climate
82:39
mitigation
82:40
as is currently in the focus of many

82:43
developed countries reducing emissions
82:46
and not also consider the needs to
82:49
protect nature and its capacity to
82:52
enhance carbon storage
82:54
that would also and can also lead to
82:57
mild adaptation
82:59
strategies and and potentially to the
83:02
loss of the capacity of ecosystems to
83:04
help mitigation
83:06
thank you
83:07
I think a very important point to add
83:10
what
83:11
to what hans has just said is
83:13
I think the overall global message
83:16
that's coming out of the ipcc in this
83:17
assessment cycle is that the world we
83:19
live in today
83:21
is not going to be the world we live in

83:22
five years 10 years or even 20 years
83:24
from now and therefore we have to be
83:26
much more vigilant about our actions and
83:29
so certainly something that may increase
83:31
our adaptive capacity today may be seen
83:34
as a good adaptation option today
83:36
may not be so 10 years from now or 20
83:39
years from now and that really speaks to
83:41
the fact that we need processes that
83:43
allow us to monitor and evaluate
83:46
the impacts of our adaptation
83:48
interventions
83:50
in a variety of sectors across various
83:52
elements and scales of our society that
83:55
really speaks to a new partnership again
83:57
between policy and science to enable
83:59
that monitoring and evaluation but
84:01
probably most importantly again speaks

84:03
to a new social compact that sees the
84:06
most vulnerable groups being drawn to
84:08
the table because our report very
84:09
clearly indicates that the groups most
84:12
impacted by male adaptation are the
84:14
vulnerable societies around the world
84:16
the vulnerable communities those who
84:18
live in formal settlements those who
84:20
live in vulnerable areas and it's really
84:22
critical if we are to monitor and
84:23
evaluate not only to take a scientific
84:26
perspective on the impacts of our
84:28
interventions but also to hear from the
84:29
grassroots from the people who are
84:31
experiencing the impacts of these
84:33
interventions to determine whether
84:35
they're having the effect that is
84:37
desired or in fact if they're becoming

84:39
maladaptation so again it speaks to the
84:41
fact that we can't have a linear
84:43
approach to these problems we need to be
84:45
talking to everyone to have them around
84:47
the table and to be using all of our
84:49
strengths to take the world forward
84:52
thank you very much we have about 15
84:54
minutes left so next question again for
84:57
dr roberts
84:58
what is the role of agriculture
85:00
production on the scenario presented by
85:02
the report
85:03
are south american crops at the risk
85:08
so obviously agricultural production is
85:10
a very important concern to working
85:12
group two because that links back to
85:14
well-being and livelihoods and economies
85:18
what we do indicate that given the

85:20
current uh impacts that we're seeing
85:22
from climate change in the here and now
85:25
as we've indicated before we're experi
85:27
already experiencing acute food and
85:29
water shortages in places like central
85:32
and south america asia the small island
85:35
states and so this is a real problem now
85:38
what we know is that problem is going to
85:40
escalate again in places like central
85:42
and south america if we look at two
85:45
degrees of global warming we know that
85:48
areas that are currently growing staple
85:50
crops will not be able to grow those at
85:52
the same level of efficiency and
85:54
effectiveness and so there are
85:56
significant challenges coming for areas
85:59
like south america africa asia in terms
86:02
of overall food production

86:05
thank you very much next question uh is
86:07
more on the process and i'll direct it
86:09
to the secretary of the ipcc
86:12
can you please elaborate on how the
86:14
crisis in ukraine has affected the last
86:16
week climate negotiations between
86:18
countries how do you look at publishing
86:20
this report during this crisis
86:24
for this question question the ipc
86:27
session are closed the session
86:30
they are closed session
86:32
they are design designated in this way
86:35
to allow frank
86:38
and transparent discussion
86:40
between government and scientists
86:44
because of this
86:46
closed nature
86:47
of this approval session

86:50
we are not discussing or paying
86:52
attention to the presence the attendance
86:55
or
86:56
any uh you know participants for
86:59
delegation this is something is closed
87:02
and
87:02
yes of course
87:05
we are keeping on track the list of uh
87:08
the participants
87:10
and i we will provide the whole list of
87:13
the participants
87:15
in the report of disciplinary session
87:18
thank you very much next question is
87:20
from the washington post and it's for
87:22
both co-chairs
87:25
you have spoken about the numerous
87:26
mitigation and technology options that
87:29
are already available to society and how

87:33
political will
87:34
is the major barrier to transformation
87:37
what does the working group 2 report
87:39
tell us about how to build the political
87:41
will that is necessary for change dr
87:44
roberts and then dr putner
87:47
thank you for that important question in
87:49
fact this is not a new message for
87:51
the ipcc that message was made very
87:54
clear in the special report of 1.5
87:56
degrees celsius
87:58
that infected societal and political
88:00
will which is the major challenge in
88:01
moving forward towards a more resilient
88:04
and sustainable present and future for
88:06
everyone around the world
88:08
what we look at in terms of working
88:10
group two is how that

88:13
support for change is built so we speak
88:15
to the need for institutions that are
88:18
inclusive that are well funded we speak
88:21
to the need for participation
88:24
in decision making so welcoming groups
88:26
to the table particularly the vulnerable
88:28
as i've indicated before we speak to the
88:30
need for various levels of government
88:33
to interact with one another to create
88:35
the kind of environment that facilitates
88:37
change so for example national
88:39
government creating the policy framework
88:41
for local government to act but also the
88:44
appropriate flow of financial resources
88:47
to enable that but ultimately political
88:50
and societal will is determined by what
88:53
each of us as individuals prioritize as
88:55
important in our lives so over and above

88:58
the structural changes that are needed
89:00
in terms of government cooperation flow
89:02
of finance it's important that we
89:04
ourselves educate ourselves about the
89:06
challenges we face and make those
89:09
priorities known more broadly in society
89:12
and to our leadership in order to
89:14
encourage the political school that's
89:15
necessary to take the bold and rapid
89:17
action required in this decade
89:22
yeah thank you and to add to to the
89:25
answer that that deborah has has given i
89:28
think in the context of climate
89:29
resilient uh development the the
89:32
cross-sectoral collaboration in
89:35
governance and between institutions is
89:38
is an important
89:40
element that can enable

89:42
a stronger action and and also can
89:44
provide motivation to to take action
89:47
being aware of problems in in other
89:50
sectors where one's own sector can
89:53
possibly contribute and we have
89:55
developed a picture in this report how
89:57
such
89:59
integration and and
90:01
cross-sector collaboration can can
90:04
happen also
90:06
the the view of the international not
90:09
just of of the local and vulnerable
90:12
elements in one's own society
90:15
could
90:16
could provide motivation but also
90:18
looking at the international
90:20
situation where we clearly lay out that
90:23
multinational international

90:25
collaboration
90:26
is an essential element in in making a
90:30
progress in in this climate
90:33
arena
90:34
this also concerns a global move to for
90:38
example
90:40
remove subsidies
90:41
from from fossil fuels
90:44
and
90:45
the current crisis could actually lead
90:48
and this is already entering the
90:50
political discussion in my own country
90:52
could actually
90:54
lead to the
90:56
avoidance of dependencies on the
90:58
suppliers of fossil fuels
91:00
in situations of political in
91:03
instability and

91:05
and
91:06
supporting the establishment of
91:09
renewables in enhancing their fraction
91:11
in in energy provision could increase
91:14
the the independence
91:16
in in that sense so there are
91:19
motivations um that that come from from
91:22
various sites
91:24
but the most important pillar certainly
91:26
is and has been the mobilization of the
91:29
young generation that we have seen
91:31
somewhat
91:33
surprisingly but
91:34
it was a very pleasant surprise after
91:36
the release of the 1.5 report
91:39
where
91:41
the the taking up the crucial
91:43
information on climate change and its

91:45
future challenges by the young
91:47
generation and their concern about the
91:49
future
91:50
is and has been a very strong
91:54
level for political shifts that we have
91:56
seen in some countries in including my
91:59
own thank you thank you very much for
92:01
that the next question is for the ipcc
92:04
chair dr lee and dr portner
92:06
the results of the working group 2
92:08
analysis
92:10
are not so surprising since it is
92:12
natural to believe that continued
92:14
climate change brings more serious
92:16
impacts on ecosystems and damages and
92:19
losses
92:20
so what is in your view the real
92:23
scientific value of the report and its

92:26
impact on policies
92:28
dr lee
92:33
thank you very much it's a very
92:34
important questions and that's i believe
92:36
the
92:38
hands will give a more detailed answer
92:40
to this but uh
92:42
overall the this study the this
92:45
assessment for the first time uh
92:48
analyzes assesses in very detail the uh
92:52
impact of a temporary
92:55
overshoot
92:56
and it the report clearly indicates that
92:59
there will be a some
93:00
uh
93:01
impacts that will be irreversible
93:04
even if the temperature will return to
93:07
1.5

93:08
at the end of the century and uh
93:11
that is one of the major major findings
93:14
of this report as well as
93:16
this report
93:18
as already mentioned identifies
93:21
key risks
93:23
uh
93:24
key risks and then does shows how that
93:27
how those key risks change
93:30
along the temperature gradients uh
93:32
changes and these are
93:35
quite a new
93:36
[Music]
93:37
messages that this report can deliver
93:40
compared to our last reports hans
93:44
thank you very much and thanks a lot for
93:46
this
93:47
important question clearly

93:49
the this report if you just see it as a
93:52
linear extrapolation of the last report
93:54
on impacts and risks
93:56
the information may may not be so
93:59
surprising although the certainly the
94:01
scientific basis for extrapolating
94:05
is is very solid
94:08
and is
94:10
also very important in terms of it the
94:13
possibilities and progress made in terms
94:16
of attributing these impacts um for
94:19
example due to extreme events to human
94:22
activities i think there the working one
94:26
report and the working two report
94:28
come come together closely another
94:30
advance that our report offers is really
94:33
is systems understanding an integrative
94:36
understanding

94:37
how the different lines of evidence come
94:39
together
94:41
there was one figure in in that slide
94:43
presentation which was in in rather
94:46
straightforward ways uh laying bringing
94:49
forward the interactions between the
94:51
human systems the climate systems and
94:54
biodiversity biodiversity providing
94:57
ecosystem services and how human society
95:02
currently is causing the imbalance by by
95:05
causing climate change through
95:06
greenhouse gas emissions and thereby the
95:09
impact feedbacks on the natural and the
95:12
human systems by shifting that balance
95:14
in interactions and from a systems point
95:17
of view this emerges as as an
95:20
underpinning framework for
95:23
the concept of climate resilient

95:25
development which was already there yes
95:27
during the fifth assessment report but
95:30
what is uh much more
95:33
comprehensively uh developed in in our
95:36
our present report it talks about the
95:39
resilience for ecosystems as well as the
95:42
resilience for for human systems and it
95:46
shows that
95:47
um in that argumentation that going for
95:51
a combination of human health ecosystem
95:54
health and finally at the highest
95:56
complexity level planetary health is
95:59
actually giving us hope for the future
96:01
and should provide a vision and an
96:04
orientation for concerted actions across
96:06
the globe
96:08
thank you very much uh we will take a
96:10
few just another two questions given the

96:12
time
96:13
uh the first one is from
96:15
news first in sri lanka question is for
96:18
dr roberts what are the ipcc's
96:21
recommendations in terms of
96:23
in
96:24
in calculating the local
96:26
i guess including the local and
96:28
indigenous knowledge to find more
96:30
effective solutions to tackle climate
96:33
change
96:34
thank you so much and that's such an
96:36
important question because certainly one
96:37
of the new elements of this particular
96:40
assessment is a much stronger focus
96:43
on indigenous communities local
96:46
knowledge traditional knowledge as a way
96:48
of understanding the world that we live

96:50
in and so there's a very strong uh
96:52
pointer to the fact that where we engage
96:55
with indigenous communities and peoples
96:58
where we consider local knowledge that
97:00
really empowers us not only to frame the
97:03
questions we're asking in a more
97:04
relevant way but to develop answers that
97:07
are more comprehensive that are more
97:09
inclusive and allows us to better
97:11
understand the kind of response options
97:13
we have available to us so this i think
97:15
is an exciting move for the scientific
97:17
community acknowledging that there are
97:19
many forms of and ways of knowing the
97:21
world that there are many knowledges in
97:23
the world and so we've tried very
97:25
strongly to bring forward the
97:26
perspectives of indigenous communities

97:29
uh bring forward the input of local
97:32
knowledge in informing the kind of
97:34
solution options that are available but
97:36
the bottom line there is no doubt that
97:38
indigenous knowledge and local knowledge
97:40
is critical to understanding the world
97:42
critical to understanding the way we
97:43
respond to the climate change challenge
97:45
and critical to finding solutions and
97:47
therefore these communities absolutely
97:50
must be at the table when we're talking
97:52
about the climate change response and
97:54
they must be at the table when we're
97:56
deciding what action we take
97:58
thank you very much and the last
98:00
question is from the financial times for
98:02
both coaches or again i'll i'll be uh
98:05
looking for short answers there we are

98:06
already at 1 30.
98:09
um could you explain why the phrasing in
98:12
the
98:12
summary for policymakers is losses and
98:15
damages rather than loss and damage
98:18
which is used in the underlying
98:20
literature and full report and if that
98:22
is different to the language in the
98:25
summary for policy makers why it is
98:27
different
98:30
dr portner and then dr roberts
98:36
thanks thanks a lot for this important
98:39
question
98:40
certainly
98:41
the content of our report and the
98:44
summary for policy makers is
98:46
is very close to political interest and
98:48
to political

98:50
debate
98:51
and
98:52
we build on the information in in the
98:55
scientific literature
98:57
without really crossing the line into
99:00
the policy arena without really
99:02
developing policy prescriptive uh
99:05
language or wanting to get entangled in
99:09
in political uh debates between the
99:12
global north and and the global south or
99:16
considering country interests that is
99:19
why we are developing more policy
99:22
neutral language and and using the
99:24
important information on losses and
99:26
damages as they result from impacts and
99:31
and also from risk projections for
99:34
for the future in in in a more policy uh
99:38
neutral way

99:40
and and to make this clear we have used
99:43
uh the wording uh that the reporters
99:46
have rightly um observed and it it helps
99:50
us uh to to bring this into a more
99:53
policy neutral but very policy relevant
99:56
uh language that is my my take on this
99:59
and about to end
100:01
I think it's a very important term
100:03
because it allows us to understand the
100:04
full spectrum of the challenge that we
100:06
face so we use the term losses and
100:08
damages really to speak to adverse
100:10
impacts
100:12
both in the present but also potential
100:14
future risks but it talks to a scenario
100:17
where we can draw forward not only
100:18
economic impacts but
100:20
non-economic impacts so losses and

100:23
damages so it gives us a sense of is
100:25
adaptation but there are potential
100:28
scenarios as we've indicated where we
100:30
may have maladaptation where adaptation
100:32
may not be effective it may not be fast
100:34
enough or at scale and then we have to
100:36
deal with the result of losses and
100:38
damages but that phrasing as i say
100:40
allows us not only to think about the
100:42
loss of infrastructure the loss of
100:44
people's lives but the non-economic
100:46
losses that may come from loss of
100:48
culture loss of language loss of
100:50
livelihoods lots of places where people
100:52
live so it allows us to adopt a more
100:54
comprehensive view of the challenges
100:56
that we have to face as society
101:00
thank you very much this brings us to

101:02
the end of today's press conference
101:04
let me just say thank you to all of the
101:06
representatives of the media who have
101:08
been with us today we have answered as
101:10
many questions as possible there are
101:12
many many more questions and we will be
101:14
answering them in the hours days and
101:16
weeks to come i would like to also thank
101:19
all of the panelists at today's press
101:21
conference and for their time and
101:22
dedication and providing uh substantive
101:25
answers to to
101:27
to the questions that that were posed to
101:28
them
101:29
i would also like to stress to the
101:31
representatives of the media that the
101:33
working group 3 report which is looking
101:35
into the mitigation of the climate

101:37
change is scheduled to be released in
101:40
early april we will be communicating
101:42
with you soon about that in the meantime
101:45
thank you all take care and see you soon
102:29
you