In Module 3 we'll be looking at population health and climate change, and particularly at the relationship this has in SE Asia and the Western Pacific.
The key messages from this module which we’ll cover are:

1. The health impacts of climate change will be felt by everyone, everywhere. Climate change does not respect borders.
2. Climate change will exacerbate current and underlying burden of disease. It won’t bring anything remarkably new or different, rather it will worsen our current health issues, such as under-nutrition, diarrhoeal disease, and infectious diseases.
3. People will feel the effects of climate change differently, depending on where they live. Some places will experience changes such as increasing intensity of cyclones, while others may experience longer-term changes, such as drought and drying.
### Key messages in Module 3

- The SEA & WP regions have large populations that are currently vulnerable to a number of climate sensitive health stressors.
- Current impacts are substantial & varied. These include:
  - sea-level rise, more frequent & intense extreme weather events, more hot days
- Without adaptation & mitigation climate change could result in a dramatically increased health burden in the regions.

The key messages from this module were:

4. Climate change will impact on health in the Asia Pacific region in a variety of ways, including more frequent and intense extreme weather events – such as storms/cyclones/floods, an increase in the number of hotter days, and sea-level rise.

5. Without adaptation & mitigation climate change could result in a dramatically increased health burden in the regions.
We'll divide Module 3 into these 5 sections:

1. South East Asia and the Western Pacific are disaster prone regions
2. Health fits into the broader ‘system’ of sustainability – including sectors such as agriculture, water, disaster management
3. Overview of the main findings most relevant to health from the latest IPCC report, called the AR5
4. Action the health sector can take to reduce the health impacts of climate change in SE Asia and the Western Pacific
SE Asia & WP: disaster prone regions
This map is to remind us of how large our regions are, and that climate change will affect the regions differently, depending on exposure, sensitivity and adaptive capacity (we will revisit these terms in the next slide).

The South East Asia (SEA) Region consists of eleven countries: Bangladesh, Bhutan, Democratic People’s Republic of Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, and Timor Leste.

The Western Pacific Region stretches over a vast area, from China in the north and west, to New Zealand in the south, and French Polynesia in the east. One of the most diverse of the WHO regions, the Western Pacific constitutes some of the world’s least developed countries as well as the most rapidly emerging economies. It includes highly developed countries such as Australia, Japan, New Zealand, the Republic of Korea and Singapore; and fast growing economies such as China and Viet Nam.

There are 37 countries and areas in the Western Pacific Region.

The burden of communicable diseases is still high. Dengue continues to pose a major and increasing public health problem. Chikungunya fever is re-emerging and outbreaks of Nipah virus infections are being reported. Drug-resistant malaria has spread.

Countries have made significant progress toward increasing water supply coverage, but sanitation coverage remains low. As a consequence, diarrhoeal cause substantial mortality. Public awareness of food hygiene related to food standards is limited, as is the food safety surveillance system. More than
70% of workers are not covered by occupational health provisions.
We’ve seen this vulnerability map before, and it is a useful reminder of how vulnerable our region is – unfortunately the Western Pacific is not included in this map.

You’ll recall that responding to climate change is not just about knowing the exposure to hazards, but also recognising to what degree a region or country is sensitive to such exposure, and to what degree the population has the capacity to adapt. This is known as ‘vulnerability’.

[This vulnerability map was developed by averaging the indicators of exposure (multiple hazard risk exposure), sensitivity (human and ecological) and adaptive capacity across the countries and regions in SE Asia. The vulnerable areas were identified by ranking the regions according to the index and dividing the list into four equal parts. The geographical areas that fell into the fourth quartile were considered the vulnerable areas].

So, again, the most vulnerable areas include: all the regions of the Philippines; the Mekong River Delta in Vietnam; almost all the regions of Cambodia; North and East Lao PDR; the Bangkok region of Thailand; and West Sumatra, South Sumatra, West Java, and East Java of Indonesia. The exposure of the Philippines is more extreme compared to other Southeast Asian countries in that it is not only exposed to tropical cyclones (especially in the northern and eastern parts of the country) but also to many other climate hazards particularly floods (such as in central Luzon and southern Mindanao), landslides (due to the terrain of the country), and droughts.
In general, these results confirm our general assumptions that the most vulnerable regions in Southeast Asia include the Mekong River Delta in Vietnam and Bangkok due to their exposure to sea level rise, and the northern part of the Philippines due to its exposure to tropical cyclones.
How climate change affects health & vulnerability
“Adverse health impacts will be greatest in low-income countries. Those at greater risk include, in all countries, the urban poor, the elderly & children, traditional societies, subsistence farmers, & coastal populations (high confidence).”


So to put a face to the map of SEA and the WP we just saw - the most vulnerable are those who have less capacity to cope: the poor, children, women, the elderly, disabled and sick people, slum dwellers, the landless and marginalized, informal open air workers, but also the displaced communities and individuals.

Low-income countries and areas where malnutrition is widespread, the level of education is poor and with weak infrastructures will have the most difficulty adapting to climate change and related health hazards. The populations considered to be at greatest risk are those living in small islands, low-lying and coastal areas, mountainous regions, water-stressed areas, in mega-cities – particularly the large urban and peri-urban agglomerations in delta regions in the SEA Region.

The most vulnerable people in the Region will be the poor because they have fewer resources to adapt to the rapid changes of the natural environment whose livelihood is dependent upon. In rural areas, women are increasingly becoming household heads and have the double burden of social reproduction and agricultural work as their husbands leave the rural areas in search of work in urban centres.

Mountain people, communities living in remote areas, slums dwellers in and around mega cities, islanders, and fisher folk will be deeply affected. But it is women, elderly groups, poor communities, children, disabled people, and ethnic minorities who have the least coping and recovering capacity and who, therefore, will be the most physically, socially, and psychologically vulnerable.
In terms of understanding how exactly climate change affects health, and increases vulnerability, it is helpful to look at this diagram. (CLICK TWICE to show the diagram, & a THIRD time to show the source)

This diagram from the IPCC AR5 report shows three primary exposure pathways by which climate change affects health:
1. Directly through weather variables such as heat and storms;
2. Indirectly through natural systems such as disease vectors; and
3. Pathways heavily mediated through human systems such as undernutrition.

The yellow box indicates the moderating influences of local environmental conditions on how climate change exposure pathways occur in a particular population.

The orange box indicates that the extent to which the three categories of exposure translate to actual health burden is moderated by such factors as background public health and socioeconomic conditions, and adaptation measures.

The green arrows at the bottom indicate that there may be feedback mechanisms, positive or negative, between societal infrastructure, public health, and adaptation measures and climate change itself.
It’s good to remember that when we’re focusing on health, health is part of the broader ‘system’ of sustainability – including sectors such as agriculture, water and disaster management.
In this influence diagram the blocks of text represent system variables, and the arrows represent causal links.

However, it is not so important to look at the finer details of this figure, but more to see that there are interlinked variables within the system.

This diagram shows that there is a ‘mess of interactions’ within the health-climate system, and it is within this that we need to see the bigger picture. Health is inherently linked to many other sectors, and thus it is vital that we take a cross-sectoral approach in the ways that we tackle and respond to the challenges ahead.
CT (check): So we’ve looked at the SE Asia and Western Pacific regions, and how generally climate change affects human health and vulnerability.

Now let’s look in more detail at some of the specific impacts of climate change on human health.
Some of the impacts of climate change on health include…

We’ll look at each of these in turn in the following slides.
Let’s look first at drought.

This figure is from the latest IPCC report (AR5), from the chapter on the Asia Pacific region.

The figure outlines the key risks and the climatic drivers for these, indicates the adaptation issues and prospects, and suggests a timeframe for risks for current and high adaptation. We can see that in each example the lowest risks are faced when adaptation occurs in the present – i.e. now. We face higher risks for adaptation when we delay our responses.

Let’s take drought as our first example (CLICK TWICE). Drought is listed here as a key risk – particularly the increase risk of drought-related water and food shortage causing malnutrition. This climate change risk is indicated with ‘high confidence’, meaning that there is a good degree of certainty that this will in fact occur.

Adaptation issues to respond to drought and corresponding effects include disaster preparedness, such as early-warning systems, and local coping strategies.

From IPCC AR5 Asia Report
low, low, medium, high, or very high. Risk levels are presented for the near-term era of committed climate change (here, for 2030-2040), in which projected levels of global mean temperature increase do not diverge substantially across emissions scenarios. Risk levels are also presented for the longer-term era of climate options (here, for 2080-2100), for global mean temperature increase of 2° C and 4° C above preindustrial levels. For each timeframe, risk levels are estimated for the current state of adaptation and for a hypothetical highly adapted state. As the assessment considers potential impacts on different physical, biological, and human systems, risk levels should not necessarily be used to evaluate relative risk across key risks. Relevant climate variables are indicated by symbols.]
This image shows the impacts of drought through two lenses – community and health. Drought can be seen here as a risk factor for complex public health impacts – ranging from infectious diseases and malnutrition, through to other health risks such as low birth weight.

If we take one example, we can see that drought has a community-level impact on water shortage, which in turn effects infectious diseases such as diarrhoea and cholera. Health emergency responses to this are suggested as (for example), food supplementation and health care, as well as epidemic surveillance and early warning systems.

There are many areas for public health responses to drought – 5 are listed here - these can be seen as broadly strengthening the health system, and will be relevant regardless of the extent of climate change that we observe. These are win-win approaches and will strengthen our health system to respond to climate change as well as many other threats – Ebola is a good example of other non-climate related threats that will also benefit from stronger health systems.
KT (check): Hunger is another important health impact of climate change, closely tied to drought.

This map is the Global Hunger Index by severity.

The red, orange and apricot colours depict where hunger is the greatest. We can see here that the regions with the highest problems relating to hunger are in Africa, India and parts of north Asia and the Western Pacific.

We face a growing problem in the world – more people are facing food insecurity and hence undernutrition, while more and more are becoming obese or overweight.

Rising temperatures and variable precipitation are likely to decrease the production of staple foods in many of the poorest regions, increasing risks of malnutrition (Parry et al., 2004).

According to IPCC, crop yields could decrease up to 30% in Central and South Asia by the mid-21st century. The rapid population growth and urbanization in the region will magnify the number of malnourished and the risk of hunger for most SEAR countries.

In Bangladesh, production of rice and wheat might drop by 8% and 32%, respectively, by the year 2050 (Faisal and Parveen, 2004).

Recent studies suggest a 2 to 5% decrease in yield potential of wheat and maize for a temperature rise of 0.5 to 1.5°C in India (Aggarwal, 2003).

The net cereal production in South Asian countries is projected to decline at least between 4 to 10%
by the end of this century under the most conservative climate change scenario.

Some studies agree that higher temperatures and longer growing seasons could result in increased pest populations in temperate regions of Asia (Roy, 2006).

Given that 60% of the cropped area is still dependent on rainfall (MoEF, 2002), Indian agriculture continues to be fundamentally dependent on rainfall.
Again – another figure depicting the enormous inequity in relation to underweight children (under 5). We can see here that the SE Asia and WP regions are both burdened heavily by this.
Now, moving to our third example of health impacts – vector-borne diseases. Again, this is taken from the Human Health Chapter (11) of the latest IPCC assessment report (AR5). We can see here (CLICK) that malaria and dengue present the greatest burden of disease globally, with 220 millions cases/year for malaria, and 50 million cases/year for dengue. It is also shown here (CLICK) that both diseases are sensitive to changes in the climate which has been observed over the period 2008-2012.

In terms of burden of disease, and priority setting, malaria and dengue are the current focus for many countries.

Changes in climate are likely to lengthen the transmission season of important vector-borne diseases like dengue and malaria and to alter their geographic range, potentially reaching regions that lack either population immunity and/or a strong public health infrastructure (Bhattacharya et al., 2006; Hales et al., 2002).

Warmer temperatures and disturbed rain patterns could alter the distribution of important disease vectors
Combined with altered rainfall patterns, hotter conditions may increase the spread of disease, such as malaria, dengue, and chikungunya, to new areas

Next we will look at the example of dengue in a little bit more detail.
This image shows countries or areas at risk of dengue, 2011. Source: WHO Map Production: Public Health Information and Geographical Information Systems, Public Health Information and Geographic Information System World Health Organization, 2008 [from WPRO report]
What this shows is that much of the SE Asia and Western Pacific regions have reported dengue, so are already vulnerable to the disease, which is expected to worsen under climate change. Japan should also be added to this image, given the recent outbreak there in 2014.

The red contour lines of the January and July isotherms indicate areas at risk, defined by the geographical limits of the northern and southern hemispheres for year-round survival of Aedes aegypti, the principal mosquito vector of dengue.

20/1/2015
This graph shows the relationship between monthly dengue reports (red line) and monthly rainfall (blue bars) in Siem Reap and Phnom Penh, Cambodia.

What we can see here is that an increase in dengue cases seems closely correlated to an increase in rainfall.

Now we move on to looking at another health impact of climate change – heat-related mortality. The IPCC has indicated here (in the Asia chapter of the AR5) that there is a high confidence of an increase in heat-related mortality. Adaptation issues and prospects to respond to this include heat health-warning systems, urban planning to reduce heat islands, and the improvement of the built environment.

KB – could this be in line with the formatting for slide 19? i.e. clicks.
This figure shows increasingly frequent heat extremes will combine with rapidly growing numbers of older people living in cities – who are particularly vulnerable to extreme heat.

Countries are shaded here according to the expected proportional increase in urban populations aged over 65 by the year 2050. Bar graphs show how frequently the maximum daily temperature that would have occurred only once in 20 years in the late 20th century is expected to occur in the mid-21st century, with lower numbers indicating more frequent events. Results are shown for 3 different “SRES” scenarios (Blue = B1; Green = A1B, Red = A2), as described in the IPCC Special Report on Emissions Scenarios.

Figure was unclear in the AR5 chapter… KT - *Given it’s hard to visually interpret, it would be good to add a description.* “This shows that countries/regions X, Y and Z have had particularly high levels of ....

Population growth is linked to climate change vulnerability. If nothing else changes, increasing numbers of people in locations that are already resource-poor and are affected by climate risks will magnify harmful impacts. Virtually all the projected growth in populations will occur in urban agglomerations, mostly in large, low latitude hot countries in which a high proportion of the workforce is deployed outdoors with little protection from heat. About 150 million people currently live in cities affected by chronic water shortages and by 2050, unless there are rapid improvements in urban environments, the number will rise to almost a billion (McDonald et al., 2011). Under a “business as usual” scenario with mid-range population growth, the OECD projects that about 1.4 billion people will be without access to basic sanitation in 2050 (OECD, 2012). The age structure of the population also has implications for vulnerability (see Figure 11-2). The proportion aged over 60, world-wide, is projected to increase from about 10% presently to about 32% by the end
of the century (Lutz et al., 2008). The prevalence of overweight and obesity, which is associated with relatively poor heat tolerance, has increased almost everywhere in the last 20 years, and in many countries the trend continues upwards (Finucane et al., 2011). It has been pointed out that the Sahel region of Africa may be particularly vulnerable to climate change because it already suffers so much stress from population pressure, chronic drought, and governmental instability (Diffenbaugh and Giorgi, 2012; Potts and Henderson, 2012).

[from AR5 Ch11]
This is another figure that shows our increasing rate of urbanisation. This is predicted to continue, and will bring further stress to food, water and other essential services.

From WMO/WHO atlast
**5 minute small group discussion**

“Ok, I’d like you to get into groups of 4. In your 4, please chat with each other about how your community has felt the impacts of urbanization, either with people leaving it (if rural) or entering it (if urban)?

Once you’ve discussed that, please focus on the second question: How can you imagine this urbanisation (either to or from where you live) changing with climate change?

You’ll have 5 minutes to cover both questions.”

Give time count down reminders – 3 minutes: “Ok, you have two minutes left. Make sure you’re now discussing the second question if you’re not already.” 4 mins 30 secs: “Please finish off your discussion in the next 30 seconds.”

“Ok, if I can have your attention back please.”

**Report back** - “I’m curious about some of the affects of urbanisation that were discussed in your group. Would any groups like to report back?” Look for raised hands. “Ok, thanks. Can you let us know a few of the affects of urbanisation on the communities represented in your group? (gather 2 – 5 quick affects from one representative of the group). And how did you think in your group that climate change would influence those effects?”

Is there a second group who’d like to also report back? Repeat.
Thank. Summarise some of the affects contributed, and wrap up by reiterating how urbanisation is likely to be an important trend in influencing health impacts under climate change.
Let’s now look at another example of how climate change affects health – flooding. Again, the IPCC (in the Asia chapter) notes a key climate change risk as increased flooding leading to widespread damage to infrastructure and settlements in Asia.

Adaptation measures suggested to respond to flood include extreme weather exposure reduction via better land-use planning, selective relocation of communities, reducing the vulnerability of essential services such as water, energy, waste management, food, telecommunications, and measures to assist vulnerable sectors and households.

From IPCC AR5 Asia Report

Kb – as above with formatting
This image shows average physical exposure to: a) tropical cyclones (top half); and b) floods in different global regions (bottom half). The darker circles indicate thousands of people affected in 1970, while the lighter circles indicate thousands of people predicted to be affected in 2030.

We can see here that the Asia region is indicated in both examples as bearing the most burden of both cyclones and floods.

Source: IPCC 2012, Handmer et al., 2012 [from WPRO regional CC&Hlth report]
The next key risk from the IPCC’s AR5 that we take a quick look at is the increased risk of water-borne disease. Early warning systems, water management and sanitation programs are suggested as useful adaptation responses.

From IPCC AR5 Asia Report

KB – as above with formatting
More variable precipitation patterns, together with warmer temperatures, are likely to compromise the supply of freshwater, increasing the risks of water-borne diseases like cholera and outbreaks of diarrhoeal diseases (Rodó et al., 2002).

Floods cause sewage and drinking water systems to mix. The lack of proper sanitation would make the problem worse.

In 2004, the sanitation coverage in the rural areas of the South East Asia Region was only of 57%, posing this as a major threat to water sources in terms of pollution with human faeces. (Meeting the Millenium Development Goal drinking water and sanitation target: the urban and rural challenge of the decade, WHO and UNICEF, 2006).

*Photo credit: © Shehzad Noorani/Still Pictures*
From water-borne disease, let’s move to water supply. One critical influence on water supply in Asia is glaciers. The Himalayas have the largest concentration of glaciers outside the polar region.

These glaciers are a freshwater reserve; they provide the headwaters for nine major river systems in Asia – a lifeline for almost one-third of humanity.

There is clear evidence that Himalayan glaciers have been melting at an unprecedented rate in recent decades; this trend causes major changes in freshwater flow regimes and is likely to have a dramatic impact on drinking water supplies, biodiversity, hydropower, industry, agriculture, and others, with far-reaching implications for the people of the Region and the earth’s environment.

Rapid glacier melting would result in a drastic reduction in the contribution to the river flow. Current permanent rivers would become seasonal.

Melting glaciers together with disturbed rainfall patterns will increase the amount of water-induced hazards such as floods, flash floods, landslides, debris flows, and droughts. Rainfalls will increase in high latitudes and decrease in most subtropical land regions, many of which are already affected by drought.

Population growth and increasing demand for water due not only to higher temperatures – demand for irrigation water will increase by 10% for an increase in temperature of 1°C – but also to higher standards of living, could adversely affect more than a billion people by the 2050s. Increasing withdrawal rates of groundwater and decreasing recharge time of the
aquifers will accelerate the water crisis, notably in drier areas (Gosain et al., 2006).

*Photo credit: http://msnbcmedia3.msn.com*
Flooding is another impact of climate change that has impacts on human health.

Twenty-one GLOF events have adversely affected Nepalese territory in the recent past.

The International Centre for Integrated Mountain Development (ICIMOD), in partnership with UNEP and the Asia Pacific Network and in close collaboration with national partner organizations, documented baseline information on the Himalayan glaciers, glacial lakes, and GLOFs in a study which identified some 200 potentially dangerous glacial lakes in the Himalayas.

Lastly related to water, let’s look briefly at sea level rise.

The warming of sea water leads to sea level rise. Sea levels have risen faster in the last decade than in the previous 30 years. The total rise in sea level during the twentieth century is estimated to be 0.17 m. But a recent research report indicates that that the rate of ocean warming from 1961 to 2003 is about 50% larger than previously reported (CSIRO, 2008). Global mean sea level is projected by IPCC to rise by between 18 and 59 cm by the year 2100, but much larger increases cannot be ruled out.

India has one of the most populated coastal communities in the world with approximately 500 people per mile of coastline, compared to the U.S., which has approximately 30 people per mile. India, for instance, has a 7,500-km long densely populated and low-lying coastline inhabited by more than 10 million people (Shukla et al., 2003).

UNEP identifies India among the 27 countries that are most vulnerable to sea level rise. Most of the coastal regions are agriculturally fertile, with paddy fields that are highly vulnerable to inundation and salinization. Coastal infrastructure, tourist activities, and onshore oil exploration are also at risk. The impacts of any increase in the frequency and intensity of extreme events, such as storm surges, could be disproportionately large, not just in heavily developed coastal areas, but also in terms of the paralyzing devastation in low-income rural areas. The 1999 tropical cyclone that hit Orissa resulted in a death toll of about 10,000, and demonstrates the extreme significance of impacts related to climate variability.

A district level ranking of vulnerability to one-metre sea level rise by constructing a weighted index. The study also assesses the economic implications of such a rise on the most and least vulnerable
districts in order to provide the range of projected economic impacts on the Indian coast. In present value terms, the results range from 4.5 billion USD in the case of Mumbai, to 72 million USD in the case of Balasore.

In these last few slides I will briefly touch on some emerging themes that are starting to be understood a little better: migration and psychosocial stress.
The first is migration, and the potential for climate change to create ‘climate refugees’, due to a range of factors arising from climate change and its myriad flow on effects. We can see here that 5 direct impacts of climate change are listed – changes in food yields and fresh water availability, extreme weather events, changes to land availability and general impacts on population health. These might then result in population pressures and social, demographic, political and economic stressors (which are mediated by adaptive responses), which can give rise to population movement and/or conflict. Finally, three types of population movement are indicated – forced displacement, planned resettlement or migration.
Coastal flooding, malnutrition, illnesses, migration, displaced people, and social conflicts are amongst the most significant effects from climate change that will affect human health.

The loss of livelihood will increase psychosocial stress in the affected populations (McMichael et al., 2003a).

A term has now been coined to explain the feeling of distress caused by environmental change - ‘Solastalgia’ (G. Albrecht, *Solastalgia, a new concept in human health and identity*, Philosophy Activism Nature 3:41-44 (2005)).

Photo credit: © Gil Moti / Still Pictures
In the last slides we’ve looked at the following climate change impacts that are affecting health. Hopefully this coverage will be helpful in your countries in being able to identify and manage these impacts.
**KT (check):** To finish off Module 3, let’s look at action the health sector can take to manage the impacts of climate change on population health.
Urgent action is needed from the health sector, in collaboration with other sectors in order to respond to the risks to health posed by climate change.

As we have learnt, global environmental changes are affecting climate, which in turn will impinge on, in profoundly adverse ways, some of the most fundamental pillars of life such as food, air, and water.

The main drivers behind these global changes are both natural and, increasingly so, human pressure. The disruption of environmental factors will have the most significant impacts on health. By adapting, we will reduce those adverse impacts. At the same time, we need to reduce our pressure on the environment through mitigation measures.
KT (check & add): In taking action, the health sector has two key response areas:

Adaptation (read)

And mitigation - CLICK to show mitigation action for the health sector (read text and discuss)
So, to wrap up, in Module 3 we looked at:

- The fact that South East Asia and the Western Pacific are disaster prone regions
- Health fits into the broader ‘system’ of sustainability – including sectors such as agriculture, water, disaster management
- An overview of the main findings most relevant to health from the latest IPCC report (AR5)
- Action the health sector can take to reduce the health impacts of climate change in SE Asia and the Western Pacific (KT – check)
The key messages from this module were: (CLICK to display each)

1. The health impacts of climate change will be felt by everyone, everywhere. Climate change does not respect borders.
2. Climate change will exacerbate current and underlying burden of disease. It won’t bring anything remarkably new or different, rather it will worsen our current health issues, such as under-nutrition, diarrhoeal disease, and infectious diseases.
3. People will feel the effects of climate change differently, depending on where they live. Some places will experience changes such as increasing intensity of cyclones, while others may experience longer-term changes, such as drought and drying.
Other key messages were: (CLICK to display each)

4. Climate change will impact on health in the Asia Pacific region in a variety of ways, including more frequent and intense extreme weather events – such as storms/cyclones/floods, an increase in the number of hotter days, and sea-level rise.

5. Without adaptation & mitigation climate change could result in a dramatically increased health burden in these regions.

Are there any questions on the learnings from Module 3?
To finish off Module X, I’ll ask you to spend the next few minutes looking over your notes and reflecting on the key learnings from Module 2 for you.

Please take some notes on any action steps you’d like to take once you’re back at work, based on what you’ve learnt around TOPIC.

Encourage quiet reflection (verbally if needed). At the end of 2 minutes: “Thanks. I look forward to hearing some of the actions that were captured over the coming days.”
Coming up tomorrow...

Day 3:

• Options for responding to climate change
• Assessing how vulnerable health is to climate change
Next tomorrow...

Module 4: Policies & practice of mitigation & adaptation