Hello, I'm Joanna Faure Walker.

I am the module tutor for integrating

science into risk and disaster reduction.

This module is all about

multidisciplinary holistic approaches

to Disaster Risk Reduction.

In particular,

how do we take scientific data?

Fundamental science primary observations use

them in applied science and in modelling,

and ultimately to really understand

risk and quantify how risk reduction

strategies could change risk so that we can

communicate about that to all stakeholders,

whether that be individual.

People exposed to risk or whether

that be all the way up to government

level and policy makers.

So it really is about developing

that common language,

so we can help build resilience.

So we need that language in order

to communicate complex concepts,

but in an accessible way.

So we all need to get to know

how do we quantify risk so that

we can communicate about it.

We have that common way of looking at it,

so we look at what is risk.

How do we quantify it?

What are the components of risk hazard,

vulnerability, exposure?

And then can we do those calculations?

Can we calculate the probability of events

happening and what impact will happen?

And what is the uncertainty around?

That's because so key to discussing

risk and communicating it is really

about fundamentally understanding

all those uncertainties involved.

But even with all that,

even with information about risk

and understanding and certainty,

and having all these calculations.

People still don't always

make optimal decisions.

Why what gets in the way?

What are those barriers?

And we look at both emotional and

biases and cognitive errors.

So basically things that get in a way,

how, why,

why did we let things get in the way

of making optimal decision making?

Because understanding those barriers

to our thought processes means

that then we can actually have

conversations and we can explain

things in such a way that will help

overcome those biases and hence

help to actually trigger action.

Because ultimately we want

to use scientific evidence.

In order to promote,

change and to improve Disaster

Risk Reduction.

So we look at these emotional

biases we look at quantifying risk.

We go on to look at catastrophe modelling.

Why is it necessary and how is

it used and how could it be used

even more in the future?

We look at this in relation to

the insurance industry and how

the insurance industry can both

help to transfer risk and reduce

the impact of disasters,

but also in some cases.

Maybe it doesn't always work.

You know how can actually it maybe

not help to increase resilience.

We also talk about micro insurance

within insurance concepts so not just

looking at in more developed countries,

but also looking at very small

scale projects at the local level.

We look at various examples of

different disasters from around the

world and how science is used in

policy both in the UK and abroad,

and we use some examples to

do this for particular

events. And then we also look

at early warning systems,

in particular as an example of a process

and how we need to look at the science,

but we need to look at how the science

is used and this is what the module as

I said at the beginning is all about.

It's how we take the science

and actually use it to promote

effective Disaster Risk Reduction.

and Disaster management techniques.

So hopefully that's the inspired you

to want to know more about integrating

science into risk and disaster reduction.