

Every day people make decisions that affect our lives. At the University of Southern Denmark we want those decisions to be based in fact, knowledge and understanding. With more than a thousand researchers in fields ranging from technology and engineering to history and politics, we aim to improve knowledge of our world and contribute to a better society. And because there is a person behind every discovery, we asked ten researchers at the University to tell their story - and explain what inspires them to know more each day.

Save our coasts

Her message is simple. Environmental economist Eva Roth says it's time we woke up to reality

WHEN EVA ROTH SPEAKS, you listen. As with your favourite teacher at school, her words spark your imagination. She inspires. She urges. She persuades. Do something to change the world, she insists. Believe change is possible. It's not difficult to grasp the reason for her urgency. Coastal zones – and the lives of millions of people and animals – are under threat across the world. Not just in the future, but also here and now. Right on our doorstep. And unless we act soon, the environmental economist explains, we risk losing them forever.

“Protecting coastal zones isn't just something we ought to do. We have to do it. This threat is real. Look anywhere around you and the signs are there: sea levels are rising, people's homes are disappearing, fishermen's livelihoods are being lost. Coastal zones are in urgent need of sustainable management. If we don't do something soon, it could be too late. And that's no exaggeration,” says the straight-talking Roth, lecturer at the University's Institute of Environmental and Business Economics in Esbjerg.

She looks over her coffee with determined eyes, letting the full reality of her message sink in. The human impact on the coastal zone – home to more than half the world's rapidly growing population – has been dramatic in the last 50 years. Global sea levels have risen by between 10 and 25 cm in the last 100 years and are set to increase by another 50 cm in the next 100 years, if not more. Entire Pacific islands are disappearing under water. European cod stocks are rapidly being depleted. Coastal erosion is widespread. And in today's globalised world, decision-makers can't just look after their own back garden. International

cooperation is vital if we are to save our coasts.

And that's where Roth comes in. She is the first Danish researcher on the steering committee of LOICZ, an international organisation with the job of informing the scientific community, policymakers, managers and stakeholders of the relevance of global environmental change in the coastal zone. With 2500 researchers from 130 countries, it's a huge global network. And as a team leader and member of the scientific steering group, Roth is tasked with coordinating the research agenda for one of the organisation's five areas. No easy task, she admits.

It's a demanding post, but one the 50-year-old lecturer welcomes. Having researched resource economy, fisheries and aquaculture since 1981, Roth is more than well equipped for the job, which she poetically describes as 'inspiring the international scientific community'. It is also a valuable complement to her academic work,

“ This threat is real. If we don't rectify it soon, it could be too late. ”

which involves research, lecturing and teaching an international study programme on biological oceanography run by the University of Southern Denmark and Kiel University, Germany. As a member of the European Association of Fisheries Economists and a former member of a working group on mariculture and the environment at the International Council for the Exploration of the Sea, Roth has no shortage of inspiration for this international agenda.





Let people act

“Empowering coastal communities is the starting point for global change”, says Roth, who was asked to join LOICZ in spring 2004. While statutory regulation is a vital part of a sustainable management plan, it can only go so far without public support. By informing communities of the long-term benefits of protecting their area, local people can understand the stakes and themselves be the instigators for change. It’s a tall order. But according to Roth, it’s the only way forward.

“Only the coastal communities themselves can change this process. We need to empower these people by giving them information. If they understand what is going on

right on their doorstep, you can hope that they will react themselves.

“Otherwise, the short-term benefits of exploiting the coastal zone are just too appealing – and any change will be too late,” says the expert in fisheries economics and management.

“Building change on knowledge is better than building it on politics. In politics you risk too many mistakes and we simply can’t afford to take that risk.”

Change our ways

Before this can become reality, Roth warns, society must make life-changing sacrifices. Our current lifestyle,



where intensive exploitation of natural resources is the norm, will have to make an about-face. Coastal tourism, industrial fishing and the conversion of nutrients and waste must be downscaled to a sustainable level not seen in decades. Anyone who believes otherwise – that they can have their cake and eat it - has not understood the vulnerability of coastal areas today.

But will people accept that? Will we really give up our holiday cottages and cheap fish for the benefit of future generations? Roth has the scenario mapped out in her head. “They will have to,” she says, without hesitation. “Otherwise they will have nothing left.”

Luckily, LOICZ - Land Ocean Interactions in the Coastal Zone – is a good place to start. It is independent and its grass-roots structure means members are highly active in decision-making, which gives participants like

Roth the freedom to set their own agenda. And because everyone in LOICZ is working towards the same goal, Roth says the atmosphere is more relaxed than in conventional research networks, and certainly less competitive. However, academic expertise and amiable colleagues are not enough to be a part of LOICZ, she adds. Dedication, hard work and a healthy dose of idealism are equally as important.

“You need to be idealistic to do this work, which I definitely am. It’s quite idealistic to think that a group of scientists working around the world can actually influence what goes on in the coastal zone,” says Roth, whose network now stretches across the world, from Singapore and Morocco to Germany and Portugal.

“Protecting the world’s coastal areas is a lengthy and complex process. You might never achieve it. But there is too much at stake here not to try. Otherwise it will be a dreadful waste of nature and human life.”

FACT

> More than 50 per cent of the world’s human population lives in the coastal zone.

EVA ROTH

Age: 50

Title: Environmental economist

Wants: Global action to protect coastlines

WWW.SAM.SDU.DK/IME