

## news

# Sufficiency should underpin oceans management model

● UK expert says natural marine resources also need to be redistributed

Guy Rogers

The new oceans economy should be driven by a global redistribution of natural resources and a move away from the chimera of economic growth to a fresh new "sufficiency" narrative.

That is the view of environmental social scientist Prof Christina Hicks from Lancaster University in the UK, who delivered the keynote address at the Transformed and Transformative Ocean Governance Conference hosted by the Institute for Coastal and Marine Research at Nelson Mandela University yesterday.

Hicks, who was raised in Ethiopia, said the global Blue Economy was simply ramping up pressure on the oceans with a raft of new demands on a limited resource base.

Though some of these demands were environmentally friendly or neutral, they had not been used to reduce existing environmentally destructive ocean based development.

"So transformation in ocean governance is happening, but society has not yet legitimised it.

"It can still be changed and we should talk about that."

Hicks said humankind had through the centuries developed different relationships with the ocean related to trade and transport, culture, identity and worship, health and the extraction of materials and seafood.

These age-old engagements needed to be considered against the continuing challenge of poverty and malnutrition, huge depletion in natural resources and increases in pollution, and the dark cloud of climate change.

"We are using the ocean to install wind farms but we are



TRUE TRANSFORMATION: Prof Christina Hicks of Lancaster University in the UK speaks at the Transformed and Transformative Ocean Governance Conference under way at NMU. Picture: LEONETTE BOWER

not reducing our dependence on non-renewable energy.

"We have introduced aquaculture but we are not reducing our harvest of wild fish.

"We are ramping up marine tourism but we're not using that new activity, even if it is eco-friendly, to replace another damaging activity.

"It's simply being added on. "The clamour for ocean space is growing."

The old-style strategy of strictly protecting certain marine areas and limiting harvests had delivered some good results with the rejuvenation of environments and harvests, she said.

But it was difficult and costly to implement especially in low-income countries where

there were typically multiple coastal fishing communities and extraction methods.

Related to environmental abuse, the abuse of labour continued to prevail in some fishing industries.

Hicks said her work with poor coastal communities had revealed they typically lacked key nutrients in their diets.

"And typically there would be a multinational company working the waters just off their coast, bringing in huge volumes of fish that could supply exactly those nutrients," she said.

"Redistribution of natural resources has to be considered even if it's just a matter of leaving a larger portion of the re-

source where it is to allow poor communities to benefit."

Prof Kevorn Cochrane of Rhodes University said he agreed with this point, but that it was part of the human condition to grow.

"We've got to recognise the desire of a subsistence fisherman with one canoe to increase his fleet to enable him to better support his family.

"But we have to curtail the greed element."

Hicks said the economic growth strategy touted by most governments was the crux of the problem.

"When is economic growth enough?"

"It's insatiable. "We need a sufficiency narrative instead."



PROTEST FOR ENOCH: A protest was held outside Parktown Boys' High on Tuesday. On the same day, Enoch Mpianzi's parents and a SAHRC delegation visited the North West lodge where Enoch died. Picture: ALON SKUY

## Lodge staff confirm pupils rescued from river in 'dangerous situation'

Kgaugelo Masweneng

The Nyati Bush and River Break lodge has confirmed that facilitators at the camp had to help three groups of pupils in a dangerous situation get out of the river when they entered deep water with a strong current on improvised rafts.

The lodge, through a statement by its legal representative Daniel Eloff, yesterday sought to clarify the circumstances around the death of grade 8 pupil Enoch Mpianzi, who disappeared during the activity.

Eloff said pupils were accompanied by the headmaster of Parktown Boys' High, seven staff members and grade 12 prefects.

The pupils arrived at the

lodge late and immediately took part in a land-based stretcher run.

Afterwards they got into teams and had to pass through about 20m of a shallow bend on the outside edge of the river bank, with one member on a stretcher which had to be improvised as a raft, supported by four tubes, and the remaining team members supporting and steering the tubes and stretcher.

"The children participating in the activity were excited and competitive.

"The groups were eager to finish first and started to overtake each other in the water.

"That created a dangerous situation as groups — despite clear instructions to the contrary — tended to move into the deep end of the river

where the current was stronger than in the shallow water.

"The facilitators had to help three groups to get out of the water.

"At no stage did the facilitators notice that any of the group members were swept away, but the specific activity was immediately terminated when the dangers were realised," Eloff said.

He said after the activity there was a hike and supper, followed by a sleep-out in the veld.

On Wednesday evening last week, roll-call was held by the school staff, where it was realised that eight pupils were unaccounted for.

"Unfortunately, no roll-call was held at the school before the departure of the learners, so there was uncertainty

among the school staff as to whether the eight absent learners were actually attending the camp at all," Eloff said.

He said after the school contacted the parents of the eight unaccounted-for pupils, it became apparent late on Thursday morning that Mpianzi was missing.

Eloff said the staff and management of the lodge expressed "our deepest condolences to the Mpianzi family following this tragic loss.

"We share the pain of Enoch's loved ones. Our staff are also receiving counselling for the trauma and shock.

"Nyati Bush and River Break will provide full co-operation and assistance to all investigations conducted, as well as provide advice to the property." — TimesLIVE

## Fight-or-flight really does turn your hair white

Harvard scientists have got to the root of why stress turns our hair grey, or white.

Marie Antoinette reputedly turned white overnight when she faced the guillotine.

For more modern examples, perhaps tune into parental anecdotes to find out what triggers this.

But the first study proving that stress can cause grey hair has unraveled the mystery behind it.

The team found that "stress activates nerves that are part of the fight-and-flight response, which in turn cause permanent damage to pigment-regenerating stem cells in hair follicles". Senior author of the study, Prof Ya-Chieh Hsu, from Harvard, said the researchers wanted to understand the impact of stress on the body's diverse tissues.

"Hair pigmentation was such an accessible and tractable system to start with," Hsu, from the stem cell and regenerative biology department, said.

"Besides, we were genuinely



FADE TO GREY: How stress turns hair grey is all about the nerves that are part of the fight-and-flight response, Harvard boffins say. Picture: ANASTASIA KAZAKOVA/123RF

curious to see if stress indeed leads to hair greying."

Lead author Dr Bing Zhang, from the Baylor College of Medicine, said that traditionally the fight-or-flight response had benefited animals' survival "but in this case acute stress caused a permanent depletion of stem cells".

Every hair follicle in the skin has sympathetic nerves branching into it.

Under stress, sympathetic nerves release the chemical



FOLLICLE FOCUS: Ya-Chieh Hsu from the Stem Cell and Regenerative Biology department at Harvard. Picture: HARVARD UNIVERSITY

norepinephrine, which gets taken up by pigment-generating stem cells.

"The excessive activation of the stem cells [means] they all convert into pigment-producing cells, prematurely depleting the reservoir".

"The damage is permanent," Hsu said.

"After just a few days all of the pigment-regenerating cells were lost. Once they are gone you can't regenerate pigment

any more. I expected that stress was bad for the body but the detrimental impact of stress that we discovered was beyond what I imagined."

The multidisciplinary team did extensive sleuthing with mice in the lab to figure out how the sympathetic nerve system controlled greying hair under stress.

First, they tested the hypothesis that stress caused an immune attack on pigment-pro-

ducing cells. But the hair of mice without immune cells still went grey.

Then they tested whether the hormone cortisol was responsible.

But mice lacking the adrenal gland and ability to produce cortisol-like hormones also went grey under stress.

Prof Isaac Chu, in the immunology department at Harvard Medical School, said this study showed that "neurons can

control stem cells". The results advance understanding about the effects of stress on the body, providing clues for further research on how to modify or block damaging effects.

"We've laid the groundwork for understanding how stress affects other tissues and organs in the body," Hsu said of the study, which was published last night in the journal Nature (<https://www.nature.com/>).

But the findings are not a treatment or cure for greying hair.

No problem.

The global "grombre" movement, a radical celebration of the natural phenomenon of grey hair, has popularised going grey at any age.

Since it started in 2016, "grombre" has attracted thousands of followers, including 161,000 on Instagram.

Peerless actress Helen Mirren, actors George Clooney and Idris Elba (in his beard) and comedian Jon Stewart also show that silverbacks belong in the spotlight. — TimesSELECT

## App frustrates criminals who prey on schools

To avoid becoming easy prey for criminals, hundreds of SA schools are going cashless.

That is thanks to a mobile app called Karri, which has helped move millions through secure, trackable online transfers.

The app — powered by Nedbank — enables parents to make safe, quick and convenient payments to their children's schools via their smartphones.

It is free for parents to use, and there are no hidden costs or sign-up fees for the school. Burglaries and armed robberies have become frequent at schools throughout SA in the past few years.

In the most recent incident, teachers at Quarry Heights Primary School in Newlands East, Durban, were robbed.

It is not clear whether cash from school fees was taken from the school during the robbery.

"It is alleged that on January 15 at 1.45pm, four armed suspects entered the school and robbed the staff of cash and cellphones before fleeing," SAPS spokesperson Colonel Thembeke Mbele said.

Mbele said a case of robbery was being investigated by Greenwood Park police.

The KwaZulu-Natal department of education has since urged schools to not keep money on the premises.

In the first seven months of last year, Gauteng education MEC Panyaza Lesufi confirmed that 262 cases of theft at



CASH COURSE: Karri is a new mobile payment app that addresses the problem of schools being robbed by criminals. Picture: KARRI

schools had been opened, according to a media report.

"With little to no security in schools, having large amounts of cash on school premises is a constant worry for everyone," Karri CEO Doug Hoernle said.

"It is scary to think that this could make your school an easy target for criminals and the thought of your child being caught up in a school robbery is truly a frightening one.

"Cash in schools should be completely eradicated and with a sense of urgency.

"The reality is that there are still schools asking parents to send their children to school with cash for events and collections.

"Why are they still sending children to school with cash? Surely with the rising number of school robberies in SA, it is now time to change," Hoernle said.

According to Hoernle, there are already hundreds of schools that use the app, with most refusing to accept cash payments from parents. — TimesSELECT

## By gum, a poisoner has declared war on Cape Town's trees

Ten gum trees in Cape Town have been deliberately poisoned in attacks that have left authorities baffled.

The latest attack targeted a 25m gum tree in Kenilworth, which is dying and will have to be removed.

Last October, nine trees in Durbanville were targeted, and a criminal case was opened with the police.

Cape Town mayoral com-

mittee member for community services Zahid Badroodien said he feared more trees could be targeted.

He speculated that motives for poisoning trees could be to stop leaves and seed capsules falling on private property, fears about branches or the whole tree falling, and to remove a tree so development could go ahead.

The Kenilworth attack, in

Wessels Road, targeted a tree estimated to be 75-100 years old.

"Several holes were drilled around the base of the tree and a herbicide injected into the holes, leaving a blue stain," Badroodien said.

In the Racecourse Road attack in Durbanville, herbicide was applied in small pools around three trees, others were sprayed with poison

and holes were drilled in the rest before poison was injected.

"The intentional destruction of trees is worrying as it indicates the lengths some will go to, to destroy trees that play such a vital role in the ecosystem and urban landscape," Badroodien said.

"Apart from the aesthetic value, trees also have environmental benefits such as cool-

ing, providing shade for people, providing a safe space for birds and the absorption of carbon dioxide."

Ten gum trees in Cape Town have been deliberately poisoned in attacks which have left authorities baffled.

"Trees could also add up to 15% to property values and save on air-conditioning costs, which is an economic benefit. "The city views this illegal

activity in a serious light and we will investigate this to hold those responsible to account."

Badroodien said there was no way to rehabilitate a tree that had been poisoned and early detection was difficult.

"In most instances, only when the branches are dead do we notice that something could be wrong," he said. — TimesLIVE