Tuesday, November 9th, 2010

Transcript of ABC-TV Stateline interview, Fr.29.10.10 with added comments by Malcolm Roberts

Below is the transcript of Professor Ove Hoegh-Guldberg's interview by ABC-TV's Jessica van Vonderen, on the Stateline program, Friday, 29.10.10.

The ABC's transcript was copied from the ABC-TV's Stateline web site and pasted and then underlined and made bold. Each statement pasted from Stateline below is preceded by the word 'STATELINE'. The transcript was provided by ABC-TV at: http://www.abc.net.au/news/video/2010/10/29/3052499.htm

Text not underlined includes comments, explanations and responses by Malcolm Roberts to comments made on STATELINE. The comments accompany his letter to Professor Hoegh-Guldberg and formal complaint to the University of Queensland Senate.

STATELINE—Introduction by Stateline's Jessica van Vonderen:

<u>Professor Ove Hoegh-Guldberg says the outlook for the Great Barrier Reef is grim.</u>

JESSICA van VONDEREN: Queensland MPs also received some disturbing reading material this week a report outlining the impact of climate change on Queensland. Sea levels are rising faster than expected and there are predictions for more frequent severe weather events. The outlook for the Great Barrier Reef is grim too. One of the experts in the field is Professor Ove Hoegh-Guldberg. I caught up with him at Parliament, where he also briefed MPs on the latest climate science.

COMMENT:

The state government's Maritime Safety Queensland (MSQ) data reveals that during the last 15 years Australian sea levels have risen by a "very low" 0.3 mm annually. This is less than one fifth (20%) the international average annual rate (1.6-1.8mm pa) stable over the last century. Relative sea levels, as measured on land, depend on vertical land movements (rise/fall) as well as sea levels. Refer to "Sea Level Rise" at: http://www.icsm.gov.au/SP9/links/msq tidalreferenceframe.html

In contrast to unfounded alarm about Pacific Island sea levels as fomented by some media and academics, please note that science shows sea level to be stable:

http://scienceandpublicpolicy.org/images/stories/papers/originals/southpacific .pdf

http://joannenova.com.au/2010/08/south-pacific-sea-levels-no-rise-since-1993/

With each successive report, even the UN IPCC has lowered its forecast rate of sea level rise. Its lower limit for projections is now almost equal to the average annual rate for the last century. Please refer to page 16-19 of "Nature, not Human Activity Rules the Climate", a reader-friendly document produced by internationally eminent

climatologists, environmentalists, physicists and scientists across many scientific disciplines: http://sepp.org/publications/NIPCC final.pdf

Where is the real-world evidence for the claim in the report cited by Stateline? From what I've seen, such wild and unfounded claims are commonly based on unvalidated computer models contradicting reality. Is that the case with the report cited by Stateline?

Note that people's lives depend on MSQ data. Tampering could lead to deaths and lawsuits. Reports citing unvalidated models though have no accountability as assumptions are often not divulged and on close examination found to be spurious. Is that the case here? That would explain huge divergences from the real world's real science.

Using the MSQ's data, sea levels over 100 years will rise by 3.0 centimetres—a little over an inch.

Climate experts (including Christopher Landsea) say there has been no increase in storm activity or severity. The ten most severe cyclones and ten most severe tornadoes occurred when atmospheric CO2 levels were10% below current. There are no credible, scientific forecasts of rising storm severity or frequency. Please refer to the preceding reference (http://sepp.org/publications/NIPCC final.pdf), "The Deniers" book by Canadian environmentalist Lawrence Solomon and "Air Con" book by New Zealand investigative journalist Ian Wishart. These and many other references expose the unscientific and nonsensical claims broadcast on the Stateline program.

Expert reef scientists and reef operators say the Great Barrier Reef is thriving. http://www.theaustralian.com.au/news/opinion/how-blue-is-your-reef/story-e6frg71x-1225811897551 "How blue is your reef?"

Please note the extent of the Great Barrier Reef:

http://www.reefed.edu.au/ data/assets/pdf file/0009/18783/SDC 041206 Aug 09 General Reference A3 2.pdf

Please note the difference of temperatures at any given time between the reef's northern-most and southern-most tips using this link provided by CSIRO marine: http://www.marine.csiro.au/~lband/web_point/

On the day a friend sent me these links (Monday, 01.11.10) the sea surface temperature of the water at the northern end of the reef was 5.1 degree C warmer than the water at reef's southern end. That difference is five times Professor Hoegh-Guldberg's forecast temperature increase. It's all natural and expected—the southern reef is below the tropics while the northern reef is close to equatorial. Corals in both areas thrive, naturally.

Yesterday (Monday, 08.11.10) the north was 4.4 degree C warmer than the south. Try for yourself.

Does Professor Hoegh-Guldberg not know this? Does he not know of coral's resilience? Does he not know that some of Earth's corals were formed when Earth was far warmer than today and some were formed when Earth was far cooler than today?

During the winter of 2008, ABC radio reported localities in southern Queensland, Townsville and Darwin incurred record cold temperatures. ABC News reported the reef near Gladstone was bleached due to the cold spell. I learned that corals live in symbiotic relationships with algae and that when temperatures are hotter OR cooler than usual, some algae die and the host coral changes to a different algae species more suited to the new temperature.

Or try National Geographic (October 28, 2010), quote: "For an organism that can't move, coral turns out to be pretty nimble. Coral has a critical partnership with certain algae that absorb sunlight and convert it to energy needed to feed the complex array of life found in a reef ecosystem. The loss of these algae, a common consequence of pollution or climate change, leaves a reef "bleached" and unable to produce energy from sunlight." ... and ... "But new findings suggest that when coral is threatened, bleaching may be part of the solution." ... and ... "It now appears that coral colonies, when confronted with dramatic environmental changes, may purge themselves of existing algae to make room for other algae more capable of thriving in the challenging conditions. Bleaching, then, may not signify coral's imminent demise, but its ability to tough out new conditions."

Thus it seems coral bleaching is an adaptation and survival mechanism: http://news.nationalgeographic.com/news/2001/07/0725 coralbleaching.html and http://www.fisherycrisis.com/coral6.html

In the second link note the article's Summary of Points, especially numbers 3 and 13. Note that Ove Hoegh-Guldberg is mentioned six times in the article. Mmmm, he seems to know this. Why is he not divulging this? Why is he fomenting unfounded fear and alarm? What's going on Professor Hoegh-Guldberg?

Science journal magazine (June 08, 2004) reports, quote: "Corals can develop new symbiotic relationships with algae from their environments after they've undergone bleaching, the process by which corals whiten as a result of environmental stress, University at Buffalo biologists report in the current issue of Science."

http://www.sciencedailv.com/releases/2004/06/040604032852.htm

As many scientists and operators on the reef confirm: the reef is healthy and adapts as it has in Earth's past far warmer climates. Fact.

Professor Hoegh-Guldberg may wish to comment. I suggest you contact Professor Peter Ridd and Dr Walter Starck for a balanced view free of financial conflicts of interest.

STATELINE:

(JESSICA van VONDEREN TALKS WITH PROFESSOR OVE HOEGH-GULDBERG)

JESSICA van VONDEREN: Professor, as Queenslanders, are there

<u>particular consequences of climate change that we need to worry about more than other Australians?</u>

PROF. OVE HOEGH-GULDBERG, UNIVERSITY OF QUEENSLAND: Well the Great Barrier Reef of course is on the front line. Another degree of warming and we put the reef into a very very untenable state and I suppose as symbol, a world heritage listed environment this is really the sort of symbol of climate change for Queensland. That said of course if you look at the cloud forests of the Daintree, increasing sea temperatures off the coast of Queensland also will eliminate that within a short period of time. So I suppose one or two degrees and you lose most of the terrestrial and marine biodiversity in Queensland. That's a serious issue.

COMMENTS:

These statements lack evidence and/or contradict scientific evidence. The Medieval Warming Period 800 years ago is accepted scientifically world-wide to have been far warmer (1-2 degrees) than current and life on Earth thrived.

In March, 2010 I asked Professor Hoegh-Guldberg for scientifically measured real-world evidence of human causation of warming. He failed to provide any. More than seven months later, he still has not provided me with any evidence.

Re-read his second last paragraph above: "So I suppose" Suppose! When said in conversation and mixed with words like "will" viewers could easily be misled to implied yet unfounded conclusions. Adding the use of emotive visions like the Great Barrier Reef and beautiful mist-shrouded Daintree rainforests further clouds people's judgments. Clever.

Why?

STATELINE:

JESSICA van VONDEREN: And what are the predictions, could we reach those one or two degrees?

PROF. OVE HOEGH-GULDBERG: If we go on the current pathway and that is to continue to add CO2 to the atmosphere at the rate of two parts per million per year we'll soon get beyond 600 parts per million and at that point global temperatures will be three to six degrees warmer and we'll see vastly different outcomes for those ecosystems. The Great Barrier Reef will be gone, the marine, the biodiversity at the top of the Daintree range will be gone and so I quess the sound bite there is that with only a couple more degrees of warming along that business as usual pathway and we lose these things for ever.

COMMENTS:

"Soon"—110 years—to get to 600 ppm at the rate Professor Hoegh-Guldberg cites. But even then, science proves CO2 has been far higher in the past while life on Earth thrived. After all, any biologist knows CO2 is plant 'food', an aerial fertilizer. Plants thrive under higher CO2 concentrations. Wait—Professor Hoegh-Guldberg is a biologist!

His predictions of future temperature use words like "will" yet are unfounded because real-world science shows CO2 does not drive temperature AND shows CO2's effect is negligible. A new science book is about to be released in Britain proving from first principles that CO2 has no warming effect in the bulk atmosphere.

Further, temperature drives CO2 because of ocean-atmosphere interactions and other components of Nature's Carbon Cycle. That Professor Hoegh-Guldberg apparently does not understand this elementary and fundamental marine science is startling. I wonder why Professor Hoegh-Guldberg seemingly replaces real-world science with reliance instead on emotive 'sound bites'.

Why?

STATELINE:

JESSICA van VONDEREN: How real a threat is that, that that will be a reality?

PROF. OVE HOEGH-GULDBERG: Well if you look at the IPCC which is the most reliable consensus on this issue they'll put it as a very likely scenario that we will achieve those conditions over the coming decades and century. Now very likely in their parlance is over 90% so it's highly likely and very probable.

COMMENTS:

The UN IPCC has been completely exposed as unreliable and fraudulent. A basic tenet of science is that data is shared for external scrutiny, yet the UN IPCC refuses to reveal its temperature datasets. The UN IPCC's use of a 90% likelihood has been publicly exposed as a politically derived figure that overruled the previous 60% figure. That 60% in turn has been exposed publicly as having no basis in science.

Professor Hoegh-Guldberg could benefit from reading the exposing of the UN IPCC by Lord Monckton and especially the comprehensive, detailed expert review of the UN IPCC's 2007 report by UN IPCC Expert Reviewer Dr Vincent Gray (PhD, Cambridge). Gray reviewed all four UN IPCC reports—1991, 1995, 2001, 2007. Check for yourself at: www.conscious.com.au. I'm confident Dr Gray would welcome the ABC contacting him at: vinmary.gray@paradise.net.nz

Will the ABC contact Dr Gray—a real scientist who follows the scientific process rather than fomenting alarm?

Why not?

STATELINE:

JESSICA van VONDEREN: Is there something we can do to avoid

that?

PROF. OVE HOEGH-GULDBERG: Well there are really two things we've got to do. The mitigation issue, a rapid reduction in co2 emissions is a must. That's one part of the problem. The other part of the problem of course is in addition to reducing emissions we've got to also realise that these ecosystems are even more sensitive to other stresses we place on them. So dealing with the problem of water quality in the coastal waters of Queensland is extremely important. We've got to reduce all those other things that impact on reefs to make sure that they have the best resilience or strength to get through the climate change we put on them irrespective of whether we take stern action.

COMMENTS:

Three damaging environmental impacts from artificially raising costs of carbon fuels were explained to Professor Hoegh-Guldberg in my e-mail to him on March 8th, 2010.

Does he not understand history? Timber and whale oil were important fuels 160 years ago. Higher density energy fuels such as natural gas, coal and oil replaced those fuels and saved Earth's forests and whales. Does he not know the fact that modern technology enables carbon fuels to be burned cleanly to produce life-giving CO2 and clean electricity?

Why?

STATELINE:

JESSICA van VONDEREN: There was an MP in State Parliament here just the other week, disputing that humans have any impact on climate change and you've been conducting regular information sessions with MPs around the country. What do you say to the nay savers?

PROF. OVE HOEGH-GULDBERG: I would say that if you were taking advice from someone you'd probably have to look at their profession and then also their track record. Climate Science Australia is built up from people that have hundreds of peer reviewed publications in leading scientific journals and they are, their expertise is core to the issue that they're talking on. Many of the experts that have been confusing the issue A don't have any papers on the issue of climate change, so they're speaking without any test of their ideas in the scientific literature and B often they'll be geologists or mining engineers or so and of course you've got to be careful where you get your advice from. I mean you don't go down the street when you've got a disease and talk to a mechanic about what the best remedy would be. Just as you wouldn't go to the doctor and ask a technical question about a car. So I think that's the root of the problem that busy leaders in Parliament need to make sure that they're getting the best facts.

COMMENTS:

Is Professor Hoegh-Guldberg aware that the UN IPCC Chairman Rajendra Pachauri is an engineer with postgraduate qualifications in economics? Yet Pachauri allows himself to be referred to as the "world's top climate scientist". Pachauri, a railroad engineer, has authored and reviewed UN IPCC report chapters. Could it be that Professor Hoegh-Guldberg has been railroaded?

New Zealand investigative journalist Ian Wishart's excellent, comprehensively referenced book entitled "Air Con" provides examples of Pachauri's public falsities. It is clear that the UN IPCC chairman has knowingly made false statements contrary to the science and contrary to the facts.

UN IPCC reports are not peer-reviewed in the manner used by scientific publications. The process of producing UN IPCC reports shows peer-review is corrupted and often completely bypassed. The UN IPCC's 2007 report relies on 5,587 non-peer-reviewed stories including hikers' stories, newspaper stories and political activists' campaign material.

A key to peer-review is open sharing of data, yet the UN IPCC hides and prevents access to raw data to validate the 'research'. Thus it cannot be peer-reviewed. The UN IPCC uses work by authors who fear scrutiny of the raw data and prohibit it. Why does Professor Hoegh-Guldberg support work that is unscientific and fraudulent?

Professor Hoegh-Guldberg has been made aware of McLean's four articles presenting UN IPCC data on its own review processes. This data was obtained from the UN IPCC itself and shows peer-review processes corrupted and often bypassed completely. The UN IPCC's own data shows its reports are not peer-reviewed in the true scientific meaning of peer-review.

Why would Professor Hoegh-Guldberg put his claimed love of the reef in the hands of 'research' that has never been peer-reviewed, relies on corruption of peer-review and prevents scrutiny of raw data?

Is Professor Hoegh-Guldberg aware that the spontaneous, growing world-wide people's movement opposing unfounded climate alarm was triggered by many UN IPCC scientists disgusted with the UN IPCC's corruption and fraud? The movement is informally and organically led by those scientists.

Perhaps Professor Hoegh-Guldberg could refer to Professor Carter, paleoclimatologist. Professor Carter has published more than 100 peer-reviewed publications. The majority of those deal with reconstructing and researching past environments and climate. He would dispute Professor Hoegh-Guldberg's wild and unfounded statements. http://members.iinet.net.au/~glrmc/new-page-4.htm

Borrowing Professor Hoegh-Guldberg's doctors/mechanics analogy, adopting UN IPCC's reports are akin to using a snake-oil comman.

Professor Hoegh-Guldberg is a biologist and condemns geologists and mining engineers. Geologists and engineers are trained in objective analysis and use of facts—because

people's lives depend on them.

In Professor Hoegh-Guldberg's view it seems Galileo doesn't qualify as a scientist. I'm advised Galileo had no peer-reviewed papers published. Of Einstein's more than 360 papers published between 1901 and 1955, only one was peer-reviewed. Much of his writing was as a clerk in the patents office. History shows Professor Hoegh-Guldberg's view is impossible and contradicts the history of science.

http://michaelnielsen.org/blog/three-myths-about-scientific-peer-review/

Professor Christopher Landsea, renowned internationally as the eminent authority on storms was a UN IPCC scientist who resigned in disgust at the UN IPCC's tactics: http://www.climatechangedispatch.com/climate-reports/8039-chris-landseas-resignation-from-the-

ipcc?utm source=feedburner&utm medium=email&utm campaign=Feed%3A+climatec hangefraud%2FnkcO+%28Climate+Change+Dispatch+news%29 Quoting Landsea: "My view is that when people identify themselves as being associated with the IPCC and then make pronouncements far outside current scientific understandings that this will harm the credibility of climate change science and will in the longer term diminish our role in public policy."

Numerous examples abound of eminent UN IPCC scientists publicly expressing their disgust with the UN IPCC's unscientific and fraudulent ways. I can provide many references such as "The Deniers" by Canadian environmentalist Lawrence Solomon and Ian Wishart's fully referenced "Air Con". My own fully referenced works "Thriving with Nature & Humanity" and "Two Dead Elephants in Parliament" are available free from www.conscious.com.au.

That biologist Professor Hoegh-Guldberg is either unaware or disregards the facts on the UN IPCC is astonishing. In my view, this questions his credibility as a scientist.

Given his comments on climate one could be forgiven for thinking Professor Hoegh-Guldberg is a meteorologist or climateologist. The reality is that he is a biologist not a climate scientist. The reality is that he has no evidence of human causation of global warming.

Is it not strange that a biologist briefs politicians on climate and weather? One wonders why he implies he is an expert on human causal relationships with global warming yet lacks any evidence of human causation. One wonders why he ignores solid proof there is no evidence of human causation. One wonders why he dismisses scientists such as geologists who have an understanding of Earth's climate history and abundant data on natural causes of climate change for billions of years.

One wonders how he dismisses engineers trained to analyse data rationally because people's lives depend on their designs. One wonders how he can link Earth's latest modest, cyclic warming that ended around 1998 to humanity's 3% of Earth's annual production of CO2 while ignoring Nature's 97% of Earth's annual production of CO2. One wonders how he can, as a biologist ignore the fact that Earth has thrived in periods of warming far warmer than its current.

One wonders why, as a human, he seems to ignore historical and archaeological facts proving that Earth's cooler periods are harsh on humans while in warmer periods humans thrive?

Why?

STATELINE:

JESSICA van VONDEREN: And the scientific evidence being humans are contributing?

PROF. OVE HOEGH-GULDBERG: Well unfortunately that is the inconvenient truth, that the rise in global temperature, the rise in co2 is a human driven signal and that is has consequences. That's the conclusion, the consensus of thousands of scientists. We have a huge problem and we're the cause of it. Now we need to fix it.

COMMENTS:

There is no scientifically measured real-world evidence supporting the professor's claim. Professor Hoegh-Guldberg's statement that thousands of scientists support the notion that humans warmed the planet is false.

UN IPCC data obtained from the UN IPCC itself shows that only five reviewers endorsed the claim—and there's doubt they were even scientists.

Refer to McLean's documents linked to www.conscious.com.au. I provided Professor Hoegh-Guldberg with the UN IPCC data more than seven months ago yet he continues to peddle his falsity in contradiction of the UN IPCC's own figures. Why?

Science shows temperature drives CO2 seasonally and with a 400-800 year lag.

It seems Professor Hoegh-Guldberg claims science is determined by consensus. A basic understanding of science reveals scientific process is not about consensus, it is about fact and impartial observation of the real world through obtaining objective, repeatable, representative real-world measurements.

Science is about effective peer review not, as demonstrated by the UN IPCC, willful refusal to disclose and share data with scientific peers. That Professor Hoegh-Guldberg implies science is ruled by consensus rather than by objectivity and that he relies on the fraudulent and unscientific UN IPCC reports is deeply troubling.

We do indeed have a huge problem in that a person in Professor Hoegh-Guldberg's position appears to not understand scientific process, to not check data and to willfully make statements contrary to science.

Why?

STATELINE:

JESSICA van VONDEREN: Professor thank you. PROF. OVE HOEGH-GULDBERG: It's been a pleasure.

COMMENTS:

Humans are not inherently evil, greedy or irresponsible. Humanity is caring. The core challenge with environmental issues is ignorance and poverty. Providing they have the wealth, humans who become aware of needless disruption to the environment seek to rectify the damage and prevent future damage. We care.

Using emotive 'sound bites' instead of real-world science only deepens the ignorance, and the damage.

Minimising energy costs is beneficial to the environment. A cursory understanding shows its truth. Deeper understanding confirms many humanitarian and environmental benefits. A logical scientific approach confirms this. As does history.

Please refer to "Thriving with Nature & Humanity" pages 30 & 31, "Two Dead Elephants in Parliament" pages 38, 5, 6 & 29 and "The Eco Fraud—Part 2 Environmental Casualties". All three documents are available free at www.conscious.com.au.

Oxfam warns that diverting resources onto 'climate change' will kill millions of children

A recent Oxfam report states that for every 50 billion dollars diverted onto climate alarm 4.5 million children will die.

Oxfam is not a climate science body. It relies on politically driven climate policies and does not understand climate. Hopefully, though, Oxfam does understand the disastrous consequences on child mortality of diverting resources.

http://www.oxfam.org/en/pressroom/pressrelease/2009-09-16/beyond-aid-climate-debt

It's interesting that experts say Professor Hoegh-Guldberg's recommendations would require diverting trillions of dollars to climate alarm. Is he aware of the frightening, inhuman consequences—particularly on the poor?

The UN IPCC was formed by the United Nations Environmental Program (UNEP). Reportedly, during the 1970's at the height of DDT's success eradicating malaria, UNEP banned DDT. It reportedly did so for political reasons that contradicted the science. In 2004 the UN's own World Health Organisation condemned the ban and resumed DDT's use. UNEP's ban is estimated to have killed over 30 million people, including up to 20 million Africans—many in dire poverty. In this way UNEP is in the league of Earth's worst mass-murderers—Hitler, Mao and Stalin. (The Eco Fraud—Part 3 at http://www.conscious.com.au/ documents/The%20Eco%20Fraud Part%203.pdf)

Is Professor Hoegh-Guldberg aware this is a moral issue?

www.conscious.com.au provides references on the crucial and enormous environmental and humanitarian benefits of low energy costs. Please note "Thriving with Nature and Humanity" pages 30 & 31, "Two Dead Elephants in Parliament", pages 38, 5, 6 & 29 and "The Eco Fraud—Part 2 Environmental Casualties".

Is Professor Hoegh-Guldberg aware of the consequences of his recommendations on the environment and on humanity? Is he aware that because CO2 does **not** drive temperature his recommendations can have no impact on climate? Thus, his recommendations incur a huge environmental and humanitarian price for no ecological or humanitarian benefit.

Science's primary role is to serve humanity. This includes protecting the environment because that is in humanity's interest. Are the needless, avoidable deaths of millions of innocent humans and destruction of the environment his idea of service to humanity?

Is Professor Hoegh-Guldberg aware of the serious consequences of his unfounded claims and recommendations contradicting science? Is he aware that fomenting unfounded climate alarm is a serious moral issue?

Efficient use of abundant, accessible, low cost, reliable, environmentally responsible energy enables people in developed nations to continue enjoying and improving their lifestyle **by** caring for the environment. Meanwhile, human experience and the laws of Nature show sustainability enables people to live a prosperous life. Thus, abundant cheap energy enables people to live a prosperous and sustainable life style.

History and economics show that in poor or totalitarian nations gripped by stifling poverty and environmental catastrophe, it is cheap energy and liberty that lift people out of poverty. Abundant cheap energy is the springboard to generating wealth and to protecting the environment. Cheap energy enables human security, ease, comfort, health, longer life spans, wealth and choices—freedom.

Abundant cheap energy increases productivity to minimise use of resources. It generates wealth that enables research into alternative energy. That could reduce prices to make alternative energy sources viable rather than being subsidized destroyers of jobs and wealth as is currently the case documented in Europe and America.

Politically prominent fomenters of alarm claim we face a choice of protecting our way of life and civilization OR protecting the environment. From what I've seen, that view reflects misunderstanding or misrepresentation of reality. The reality is that it is not possible to care for the environment without wealth and knowledge. When it comes to environmental sustainability and modern civilization it is really both or neither.

Civilization enables sustainability and sustainability enables civilisation. **Instead of Either—Or, the reality is Both—Neither.**

Is Professor Ove Hoegh-Guldberg not aware of this? Why?

We have a choice. We can experience unfounded soul-destroying fear and guilt as politicians and academics with vested interests goad us to ignore science and chase a non-problem, CO2—Nature's trace gas essential for all life on Earth. Alternatively, we humans can deservedly feel proud yet responsible, hopeful and constructive. This latter spirit is essential for acknowledging mistakes and summoning the creativity, initiative, science and energetic commitment to jointly address the many real environmental and humanitarian challenges—and set people free.