# THE OLIVE TREE

Edition 12. March - April 2019



# How Global Mental Health is Linked to the UN SDGs

**Jetwing HOTELS SRI LANKA**

**Travel Impact Newswire**
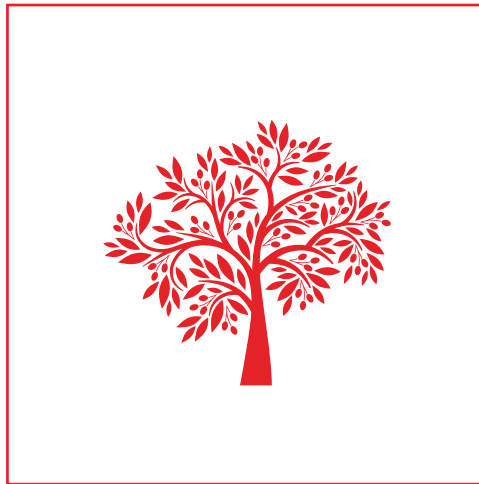
พระผู้ทรงเป็นนิรันดร์

FOREVER IN OUR HEARTS

ศาสตร์ของพระราชากับการพัฒนาที่ยั่งยืน

His Majesty's Sufficiency Economy Philosophy for SDGs

หลักปรัชญาของเศรษฐกิจพอเพียงเป็นหลักในการคิด ตัดสินใจ และการปฏิบัติ สำหรับการดำเนินชีวิตหรือประกอบกิจการงานใดๆ ด้วยการใช้ **ความรู้** และ**คุณธรรม** เป็นฐาน ผ่านการไตร่ตรองด้วยการใช้หลักสำคัญ ๓ ประการ ได้แก่ **พอประมาณ** ไม่มากเกินไป ไม่น้อยเกินไป **มีเหตุผล** ตามหลักวิชาการ **มีภูมิคุ้มกัน** พร้อมรองรับการเปลี่ยนแปลงหรือวิกฤตที่อาจเกิดขึ้น ซึ่งจะนำไปสู่การพัฒนา อย่างสมดุลในทุกมิติ ไม่ว่าจะเป็นด้าน**เศรษฐกิจ สังคม สิ่งแวดล้อม และวัฒนธรรม** อันเป็นแนวทางที่จะนำไปสู่ **ความสุขที่ยั่งยืน** ได้อย่างแท้จริง

"Sufficiency Economy Philosophy" is a mindset for decision-making. We base our decisions on our **Knowledge** using our internal value - our virtues – through applying the three principles of **moderation, reasonableness** and **prudence**. We aim for the outcomes of our decision to be balanced among the four dimensions of human life: **economy, society, environment** and **culture**, in order to promote sustainable happiness for all.

The Sufficiency Economy Philosophy of Thailand's late monarch, His Majesty King Bhumibhol Adulyadej, designed in the aftermath of the 1997 Asian economic crisis, offers one of the best models of Alternative Development globally. It is now going mainstream, primarily because it has much in common with the UN SDGs. Thailand, where the 1997 Asian economic crisis started, is certainly according it more respect than ever before. The rest of the world needs to follow if true "Sustainability" is to be realised.

**LAUNCH SPONSOR**



**EXECUTIVE EDITOR AND PUBLISHER**



**THE OLIVE TREE**

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## Message from
## EXECUTIVE EDITOR

# IMTIAZ MUQBIL

What on earth does mental health have to do with the UN Sustainable Development Goals? According to the eminent institutional partners of the newly established "Countdown Global Mental Health", just about everything.

SDG 3 specifies Good Health and Well-Being. The traditional definition of "health" has covered its physical aspects – obesity, diabetes, various chronic sicknesses, etc., etc. All impact on human life in many ways. So do mental health problems such as depression, hypertension, substance abuse, suicide, and more.

The health and wellness sector, a huge money-spinner for travel & tourism, is set to enter a new era. Mental health issues cutting across all demographic age groups, and especially amongst young people, are also impacting on everything from workplace productivity to domestic violence.

There is one key difference. While physical health deficiencies are in most cases apparent immediately, mental health handicaps can lie dormant for years before manifesting themselves in many often unpredictable ways.

In terms of business potential, it remains to be seen whether or not people will seek mental health treatments abroad. More immediately, however, it may be necessary to gauge the status of mental health within travel & tourism itself.

The ceaseless pressures of dealing with demanding, often obnoxious tourists in what is a 24-hour industry with low pay-scales and challenging working conditions, can certainly exact a high mental toll. Perhaps some indicators of alcoholism, depression, hypertension, etc., amongst both blue and white-collar industry employees would be a good start.

This issue of The Olive Tree picks up on the announcement of the Countdown Global Mental Health project and flags this emerging challenge, arguably for the first time in travel & tourism. Just as indicators are emerging rapidly to measure the environmental impact of travel & tourism, so too, will indicators appear to identify mental health conditions and their debilitating impact across societies and communities.

Of all the many dimensions of "sustainability", good physical and mental health is perhaps the most critical. Senior executives are increasingly susceptible. So, too, are the legions of women who comprise the largest segment of the industry work-force, often at first points of contact.

This edition completes the second year of publication of The Olive Tree. Collectively, the many articles included in the past 12 issues provide enormous food for thought on ways by which travel & tourism can advance the UN SDGs. I thank Jetwing Hotels for their consistent support.

## Message from

## CHAIRMAN, JETWING HOTELS

# HIRAN COORAY

This 12th Edition of The Olive Tree is being published just a few days before the UN Environment Assembly convenes in Nairobi, Kenya, between 11-15 March 2019. The impact of tourism is very much on the agenda of the world's highest-level environmental forum which is attended by Heads of State, ministers, CEOs, NGOs, activists, and more, to discuss and make global commitments to environmental protection.

For decades, travel and tourism has been promoted on the basis of its economic impact. Indeed, it is very commonly known that travel and tourism is among the world's largest and fastest growing sectors, contributing 10% of global GDP, 7% of global exports and accounting for one in every 10 jobs worldwide.

But that's only half the story.

The Nairobi conference will hear the results of UN Environment research which indicates that the tourism sector's consumption of key resources – energy, water, land and materials (such as fossil fuels, minerals, metals and biomass) – is growing commensurately with its generation of solid waste, sewage, loss of biodiversity, and greenhouse gas emissions.

According to the research, "In a 'business-as-usual' scenario, tourism would generate through 2050 an increase of 154% in energy consumption, 131% in greenhouse gas emissions, 152% in water consumption and 251% in solid waste disposal."

I agree wholeheartedly with the UN Environment conclusion that "Sustainability must now define tourism development in the 21st century." Jetwing Hotels has been leading this charge for many years now.

But it also deserves to be asked why it has taken so long for the industry as a whole to start giving sustainability the importance it is getting today? Travel & tourism has been generating waste, garbage, sewage and consuming natural resources for decades. Why has it taken so long to start generating the requisite statistics on the environmental impact?

Equally important, what other looming challenges of the future are we ignoring today, that could potentially come back to haunt us tomorrow?

Flagging these looming challenges across the entire breadth and depth of the sustainability agenda has been the call of The Olive Tree since its founding. This issue contains another broad range of topics, especially the challenge of deteriorating global mental health and its linkage to the SDGs, another topic that is not currently on the sustainability agenda, but soon will be.

With this issue of The Olive Tree, Jetwing Hotels completes two years of dedicated support. We are happy to have made an enormous contribution to this cause.

# SECTION 1

# How the state of Global Mental Health is deeply linked to the UN SDGs



Figure 1. Social determinants of global mental health and the Sustainable Development Goals, Reproduced with Permission from the Lancet Commission on Global Mental Health and Sustainable development (Lund et al. 2018, Patel et al. 2018)

Although growing lifestyle pressures are having a serious impact on public mental health and triggering related problems such as alcoholism, depression, substance abuse and suicide, especially amongst young people, there is still no uniformly applicable global indicator to measure, monitor and compare trends over time and across boundaries.

That is set to change in the near future. In February 2019, a partnership of eminent medical institutions announced the establishment of "Countdown Global Mental Health", which they described as "an independent partnership to mainstream mental health both as a public good as well as a key component of the UN Sustainable Development Goals (SDGs)." The move will give a new dimension to the rapidly growing health and wellness sector, which has so far focussed primarily on the physical aspects. Given the scale of the problem globally, the partners in the endeavour say, "When it comes to mental health, every country is a developing country."

The official announcement said, "Given the huge disparities between and within countries, we expect the Countdown to be a strong instrument for accountability to decrease population-level disparities for mental health."

Here are some details of how it will work, excerpted from reports which can be found here: https://globalmentalhealthcommission.org/

## | The Primary Partners

The primary partners in the countdown will be Global Mental Health at Harvard (GMH@H), WHO, United for Global Mental Health (UnitedGMH), Global Mental Health Peer Network (GMHPN), and The Lancet. This partnership brings expertise from a leading academic initiative devoted to the discipline that will house the secretariat, the world's leading intergovernmental organisation, a major new civil society organisation aiming to mobilise political and financial resources for global mental health, and a global network representing people with lived experience. It intends to work collaboratively with other partners and with countries to collect and validate data, and disseminate findings. Countdown Global Mental Health will publish biennial reports in The Lancet that track national, regional, and global progress from 2020 through 2030.

## | The key players in Countdown Global Mental Health 2030

Shekhar Saxena, Professor of the Practice of Global Mental Health, Harvard T H Chan School of Public Health.

Devora Kestel, Director of the Department of Mental Health and Substance Abuse, World Health Organization.

Charlene Sunkel, Founder and Chief Executive Officer of the Global Mental Health Peer Network

Elisha London, Chief Executive Officer of United for Global Mental Health

Richard Horton, Editor-in-Chief of The Lancet

Vikram Patel, The Pershing Square Professor of Global Health, Harvard Medical School

Soumya Swaminathan, Deputy Director-General for Programmes, World Health Organization

## | Why another Countdown?

The main reason is that mental health is one of the most neglected of all health concerns with adverse consequences on individuals, families, societies, and countries. None of the existing Countdowns adequately reflect the unique nature and breadth of mental health. Countdown Global Mental Health will build on the work done by WHO through the Mental Health Atlas, Mental Health Action Plan, and other initiatives. It will also work closely with existing Countdowns to ensure cohesiveness and that mental health is integrated across other global health domains.

Last year's Lancet Commission on Global Mental Health and Sustainable Development reframed mental health as a dimension, emphasising mental health promotion and prevention of mental disorders for the entire population, alongside quality treatment and care for those who have a mental health condition. The Commission also proposed mental health as a global public good and recommended a rights-based approach to protect people at risk of poor mental health and to protect the dignity of people with mental health problems.

The Commission identified three domains that should be considered for Countdown Global Mental Health. These domains are mental health determinants (eg, demographic, economic), mental health system and service components (eg, financing, workforce capacity), and mental health outcomes and risk protection (eg, social and financial risk protection). These domains are aligned with the dimensional concept of mental health within the framework of sustainable development, and go beyond crude indicators such as suicide rate, which is the only mental health specific indicator in the SDGs.

Quality of services and satisfaction with care will be an integral part of monitoring. The Countdown group will expand on the work of WHO and the Lancet Commission to determine the measurement and accountability framework, including the set of indicators that follow criteria such as feasibility, reliability, and usefulness. Data on the selected set of indicators will be collected from all countries using, as far as possible, existing global and national sources. Analysis will include aggregating the indicators, exploring correlations and clusters, and, ultimately, developing an index for comparability across countries and time.

## | The Need to Invest in Global Mental Health

Mental and substance use disorders, suicide, and neurological disorders such as dementia affect more than a billion people annually, account for an estimated third of the global burden of disability, and result in 14% of global deaths. Despite this disease burden and its socioeconomic consequences being well established, the proportion of people with common mental disorders who receive minimally adequate care does not ever reach 1% in low-income countries, only 10% in relatively wealthy middle-income countries such as India and China, and 50% in most high-income countries. People with severe mental disorders often face violations of their fundamental human rights of dignity, freedom, and autonomy.
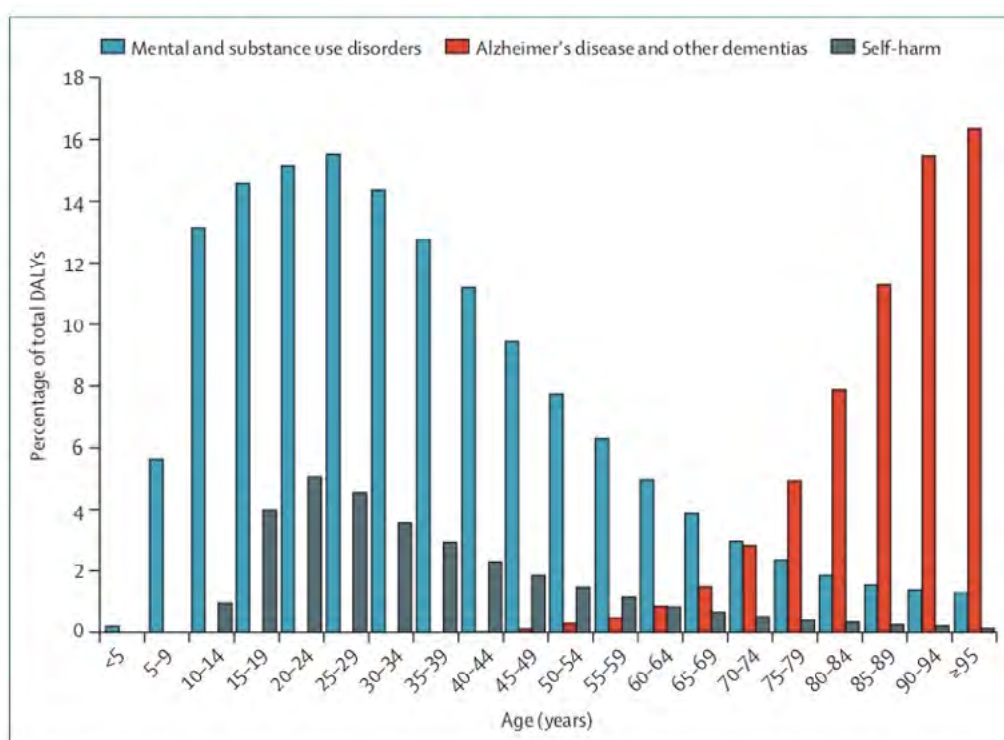


Figure 3: The global burden of mental and substance use disorders, Alzheimer's disease and other dementias, and suicide (self-harm) in DALYs across the life course
Data are Global Burden of Disease health data (2016). One DALY represents 1 lost year of healthy life. The sum of DALYs across the population, or the burden of disease, is a measurement of the gap between current health status and an ideal health situation in which the entire population lives to an advanced age, free of disability and disease. DALY=disability-adjusted life-year.

WHO estimates that the median global spending by governments on mental health is below 2% of their health budgets, highlighting the striking imbalance between spending and burden and the need to mobilise national funding and global solidarity in a coordinated manner to support country-level efforts.

The time is ripe for the constitution of an innovative, diverse, goal-oriented, and well-resourced Partnership for Global Mental Health that builds on the recommendations of the Lancet Commission on global mental health and sustainable development and the WHO high-level commission on non-communicable diseases.

There are two aspects to this challenge. First, facing outwards, the global mental health field needs a partnership that offers a credible option for donors, investors, and countries for the strategic allocation and transparent management of their funds to maximise impact on health outcomes. Facing inwards, the growing flotilla of organisations needs to be integrated within an agreed framework of processes and goals.

## | About The Commission

The Lancet Commission on Global Mental Health and Sustainable Development is a comprehensive synthesis of knowledge on global mental health, designed to catalyse worldwide action. It builds on the 2007 and 2011 The Lancet series on global mental health that helped make mental health care a greater priority worldwide.

However, it remains a grim reality that the vast majority of people affected by mental health problems globally still do not receive adequate care. The burden of these problems in terms of their direct health consequences, is very large and increasing: but their impacts on social and economic well-being, on family functioning, and on diverse sectors of society is colossal and almost incalculable.

## | Linkage to the SDGs

The Sustainable Development Goals (SDGs) represent an exponential advance from the Millennium Development Goals, with a substantially broader agenda affecting all nations and requiring co-ordinated global actions. The specific references to mental health and substance use as targets within the health Goal reflects this transformative vision. In 2007, a series of papers in The Lancet synthesised decades of inter-disciplinary research and practice in diverse contexts and called the global community to action to 'scale up services for people affected by mental disorders (including substance use disorders, self-harm and dementia), in particular in low and middle-income countries where the attainment of human rights to care and dignity were most seriously compromised. Ten years on, this Commission reassesses the global mental health agenda in the context of the SDGs.

## | Lancet Commission: Inaction on Mental Health Crisis Will Cost World $16 Trillion by 2030

**Box 1. Key recommendations of the Lancet Commission**

**1. Reframe mental health within the Sustainable Development Goal Framework**
Mental wellbeing is a universal attribute, and we need to think beyond just treating mental illness. Integrate mental health into development work across sectors, not just health services.

**2. Establish mental health care as a pillar of Universal Health Coverage**
Ensure that there is parity in investment and prioritisation for mental health care, and address gaps in accessibility and quality of services, with care being available at primary level.

**3. Use public policies to protect mental health**
Promote mental health and prevent illness by implementing targeted public health strategies at key stages in the life course, including in maternal and infant health, education and suicide.

**4. Listen to and engage people with lived experience**
Facilitate meaningful participation at all stages of development and implementation of services. Strengthen the advocacy voice of people affected to hold governments accountable.

**5. Invest far, far more in mental health**
Increase dedicated mental health funds to 5-10% of national or agency health budgets, and include mental health in funds for research and implementation in other sectors.

**6. Use research to guide innovation and implementation**
Invest in research, and make use of new evidence for service reform and improving population wellbeing – from neurosciences to implementation science.

**7. Strengthen monitoring and accountability**
Follow through on commitments to meet key development targets. Ensure mental health indicators are present in national health information systems and programme evaluation.

The Lancet Commission report on mental health exposes a "collective failure to respond to this global health crisis", causing long-lasting and preventable harm to people, communities and economies. Mental disorders are on the rise in every country in the world and will cost the global economy $16 trillion by 2030.

The Lancet Commission on Global Mental Health and Sustainable Development brought together 28 global experts in psychiatry, public health, neuroscience and advocacy, as well as people with first-hand experience of mental health conditions. Launching at the first-ever Global Ministerial Mental Health Summit in London, the Commission's report outlines a blueprint for action to promote mental wellbeing, prevent mental health problems and enable recovery from mental disorders.

"Mental health is the foundation of human capability that makes each life worthwhile and meaningful. It is for this reason that there can be no sustainable development without attention to mental health," said Commission Joint Lead Editor, Professor Vikram Patel of the Harvard Medical School. "Anyone who cares about poverty, education, social cohesion or economic progress should work to improve mental health, putting the vast knowledge we have on promotion, prevention and care, into action." The report shows that in many countries, people with mental disorders still routinely suffer gross human rights violations – including shackling, torture and imprisonment. Bringing attention to these kinds of abuse and discrimination, the Commission calls for a human rights-based approach to ensure that people with mental health conditions are not denied any of their fundamental human rights – not just to health but also to employment and education, among others.

"The Commission calls out the shameful and shocking treatment of people with mental ill health around the world," said Dr Richard Horton, Editor-in-Chief of The Lancet. "The Commission advocates for the rights of the communities it covers and argues that everyone is entitled to dignity, autonomy and freedom from discrimination."

The Commission recommends a wholesale shift to community-based care. It recommends the delivery of psychosocial interventions by community health workers, peers and a range of other providers, such as teachers and the clergy, as well as medical professionals working in primary care, to provide the foundation of the mental health care system.

"Mental health affects everyone, either directly or through our relatives and close friends. There has been great progress in research and awareness over the last decades, but as the Lancet Commission shows too many people are still left behind. By bringing together expertise from around the world and across disciplines we can improve understanding and treatment of mental health to tackle one of the greatest challenges of our time," said Dr Jeremy Farrar, Director of Wellcome.

With young people facing the brunt of the global burden of mental ill health, the Commission places great emphasis on our experiences in childhood and adolescence, which shape our mental health for the rest of our lives. The Commission has inspired a group of Young Leaders to launch a campaign to fight stigma, create a worldwide community and raise awareness, targeted at under-35s.

"We've seen a rise in mental illness in young people when, with all the knowledge we have, we should be seeing a decrease," said Professor Helen Herrman, President of the World Psychiatric Association. "Treatment in hospitals needs to be complemented by care in the communities to bring mental health services to the masses".

Among the Commission's key recommendations is a new Global Partnership to mobilise funds, help drive on-the-ground change and hold governments accountable. This Partnership would bring together allies from across the diverse global mental health community and beyond.

# How Grandmothers can help improve mental health

*By Dr Jeremy Farrar, Director of Wellcome*

Behind a health clinic in southern Harare, the capital city of Zimbabwe, there is a wooden bench known as a 'friendship bench'. Every morning grandmothers, trained to deliver low-intensity cognitive therapy, take turns to sit on it and talk to anyone who sits down about issues that are troubling them. This low-cost, community-based psychotherapy has proved so effective that last year, New York adopted it, installing bright orange, plastic benches designed to stand out and catch the attention of passers-by.

In Chile, this type of talking therapy is delivered by nurses and social workers. In the UK, psychiatry graduates have been trained to deliver cognitive behavioural therapy in schools. Digital training programmes are being used to teach therapists internationally and online therapies are being developed with the aim of reaching people around the world.

With mental health problems predicted to be the main cause of global mortality and morbidity by 2030, innovative treatments like these are increasingly important.

The issue is gaining greater attention and traction in global health. Angela Merkel, for example, chose global mental health as a focus for Germany's G20 leadership. The Secretary General of the UN made it a personal priority. And this week, the UK hosts the first Global Ministerial Summit for Mental Health.

But, as the Lancet Commission shows too many people are still left behind. Only one in five people receives appropriate treatment for depression in high-income countries – a figure which drops to about one in 30 in low and middle-income countries.

Many treatments for anxiety and depression are no more advanced than they were 30 years ago. We still don't understand enough about why some treatments work for some people, but not for others. This is echoed in new research by the charity MQ, which found that 80 percent of GPs in the UK say finding a treatment that works for mental health patients is a process of trial and error.

More must be done to tackle gaps in knowledge, so that clinicians can tailor treatments to individual patients. We need to ensure that effective interventions for mental health are made available to all those who need them, and that we continue to improve existing treatments and create new ones.

Mental health research is fragmented, with researchers often working in silos, and conditions described and measured in different ways. Compare this to cancer, where it doesn't matter whether you're a cell biologist or a clinical oncologist – you're working with a common purpose to cure cancer.

That same sense of common purpose is needed in mental health. Psychiatrists, neurologists and, public health specialists, neuroscientists, data scientists and cell biologists must share knowledge and collaborate. Solutions must be sought beyond the boundaries of traditional medicine, taking consideration of the multitude of societal and environmental factors impacting mental health – lived experiences of patients and their families, expertise of educators, employers, town planners, architects and governments all need to be part of the conversation.

It's clear that a radical new approach is needed to drive this area forward, which is one of the reasons Wellcome has decided to renew our focus on mental health over the next decade.

Research, however, cannot effect change without appropriate mental health provision, support and infrastructure in country. Most governments currently allocate less than three percent of their health budget to mental health. In low-income

countries this drops to less than one percent. This is not nearly enough. Mental health is not just a pressing public health problem, it's a huge economic issue too. More investment is essential to develop and improve treatments, and to get these to the people who need them.

Mental Health affects everyone, directly or through experiences of relatives and close friends. There is no one left untouched.

Over 615 million people suffer from anxiety and depression worldwide. Mental health is one of the greatest challenges of our time. But there's a genuine opportunity to innovate and transform all our mental health, in everything from basic research to prevention and frontline treatment.

In Zimbabwe, the friendship bench initiative has grown to hundreds of grandmothers, who together have helped thousands of people. By bringing together researchers, clinicians, patients and people from across the world to sit and share their experiences and expertise, we can improve all our mental health.

Further information:
http://www.globalmentalhealthcommission.org

# How Social media and screen time are affecting young people's mental health



## | Editorial in The Lancet, Vol 393, February 16, 2019

The death by suicide in 2017 of a 14-year-old British girl has in the past month led to a highly charged debate about social media's negative effects on children's and young people's mental health. The concern is the ease with which explicit images of self-harm can be accessed on Instagram and other platforms. Discussions have included the possibility of government-led regulations and legislation, such as privacy law.

Facebook-owned Instagram reacted quickly to last week's scrutiny and has taken responsibility for users finding harmful images without restriction. Since meeting last week with UK Minister of Health, Matt Hancock, Instagram's head Adam Mosseri committed to newly monitoring and curtailing images that promote self- harm. This step is positive, although critics such as the National Society for the Prevention of Cruelty to Children say it's too little, far too late. Debate has also questioned with whom regulatory responsibility lies—should it be shared by the user community and individuals? Further consideration is being given to whether redefining Facebook and Twitter as publishing companies would force a duty of care towards their users, absent until now and with tragic consequences. At the end of this month, the UK Government is also expected to publish comprehensive guidelines for social media and tech companies, in what now appears an overdue move.

Although there have been positive developments in the rapidly changing world of social media— including the 2017 launch of Facebook's algorithms designed to support mental health—those glimmers of hope and positivity as a force for good have not materialised. The association between social media and acts of self-harm remains a poorly understood one and it must be remembered that social media are just one influence on young people's mental health. Furthermore, alongside

underfunded mental health services, problems are confounded through structural failure to act upon red flags of suicide ideation. Whatever the context, and whoever should take responsibility, social media platforms have been providing a route through which young people can find explicit images of self-harm.

With fortuitous timing, on Feb 7, the UK Department of Health published a review map, 3 years in preparation, about screen-based activities and young people's mental health, with an accompanying commentary by the UK Chief Medical Officers (CMOs). Screen-based activities include use of all computer and electronic devices and smartphones for social media, gaming, internet, and cyberbullying by children and young people up to age 25 years.

The review found that emerging research is largely focused on the relationship between screen-based activity and mental health issues, with fewer studies exploring risk factors and consequences of screen time using longitudinal or qualitative data. The CMO commentary provides advice for parents, teachers, carers, and children and young people themselves. Recommendations include frameworks for protection and safety, voluntary industry codes of conduct to prevent normalisation of harmful behaviour (such as self- harm and bullying), and advice for parents on how to lead by example with suggested limits on family screen time, such as not having access to devices during mealtimes.

On Feb 4, the UK Department of Health also announced a trial of 370 UK schools whose pupils are participating in use of an app that supports teenage mindfulness and well-being. Described as the largest trial of its kind, multiple independent schools are already encouraging children to use smartphone apps to record their feelings. Until now, apps have not been based on evidence, instead informed by research extrapolated from and conflating findings unrelated to young people's development. Mindfulness interventions and support towards wellbeing could be helpful, but a smartphone app cannot replace face-to-face pastoral care or the benefits of communicating with an understanding adult at school, and ultimately it increases young people's screen time—at odds with wider and emerging issues.

These multiple strands and initiatives point to the need for tailored and methodologically rigorous research into young people's mental health in relation to the digital world. Without leadership from the health community, we risk not protecting—or worse, harming—our greatest asset: the future generation's mental health. As per the speed with which young people adopt social media, the evidence is also moving very quickly, and by the time frameworks are imposed, they might be obsolete to young users who have already left those particular digital platforms behind. Our understanding of the benefits, harms, and risks of our rapidly changing digital landscape is sorely lacking.

For the **UK Department of Health's review map** see http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=3748

For the **accompanying commentary** see https://www.gov.uk/ government/publications/uk- cmo-commentary-on-screen- time-and-social-media-map-of- reviews

For more on the **UK Department of Health's trial launch** see https://www.gov.uk/ government/news/ one-of-the- largest-mental-health-trials- launches-in-schools

www.thelancet.com

# Most U.S. Teens See Anxiety and Depression as a Major Problem Among Their Peers
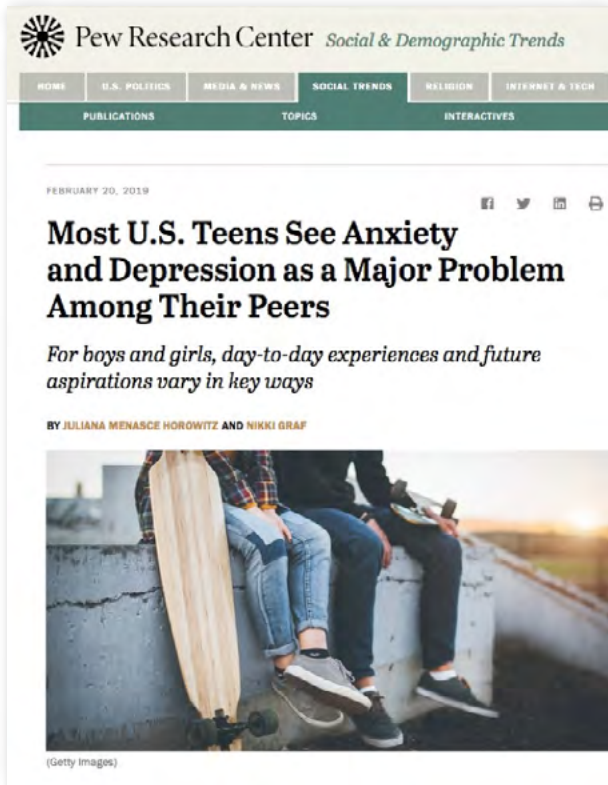


Source: Pew Research Centre. 20 Feb 2019 - Anxiety and depression are on the rise among America's youth and, whether they personally suffer from these conditions or not, seven-in-ten teens today see them as major problems among their peers. Concern about mental health cuts across gender, racial and socio-economic lines, with roughly equal shares of teens across demographic groups saying it is a significant issue in their community.

Fewer teens, though still substantial shares, voice concern over bullying, drug addiction and alcohol consumption. More than four-in-ten say these are major problems affecting people their age in the area where they live, according to a Pew Research Center survey of U.S. teens ages 13 to 17.

When it comes to the pressures teens face, academics tops the list: 61% of teens say they feel a lot of pressure to get good grades. By comparison, about three-in-ten say they feel a lot of pressure to look good (29%) and to fit in socially (28%), while roughly one-in-

five feel similarly pressured to be involved in extracurricular activities and to be good at sports (21% each). And while about half of teens see drug addiction and alcohol consumption as major problems among people their age, fewer than one-in-ten say they personally feel a lot of pressure to use drugs (4%) or to drink alcohol (6%).
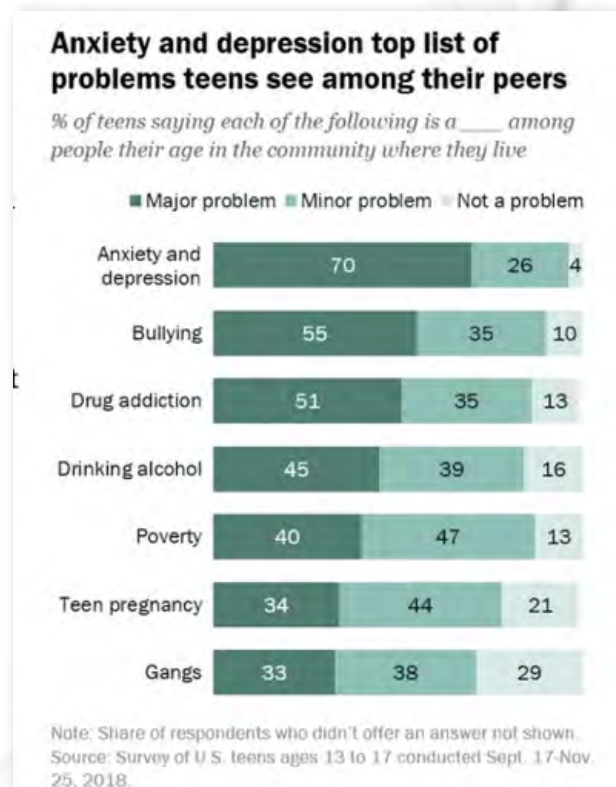


## Having a job or career they enjoy is at the top of teens' long-term goals

Most teens say having a job or career they enjoy would be extremely important to them as adults. Looking ahead, virtually all teens say they aspire to having a job or career they enjoy: 63% say this would be extremely important to them, personally, as adults, and another 32% say it would be very important. Most teens also say

**Most teens say having a job or career they enjoy would be extremely important to them as adults**

*% of teens saying each would be ____ to them, personally, as an adult*

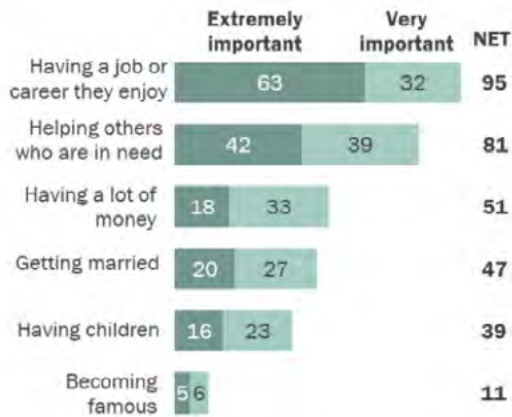| | Extremely important | Very important | NET |
|---|---|---|---|
| Having a job or career they enjoy | 63 | 32 | 95 |
| Helping others who are in need | 42 | 39 | 81 |
| Having a lot of money | 18 | 33 | 51 |
| Getting married | 20 | 27 | 47 |
| Having children | 16 | 23 | 39 |
| Becoming famous | 5 | 6 | 11 |

Source: Survey of U.S. teens ages 13 to 17 conducted Sept. 17-Nov. 25, 2018
"Most U.S. Teens See Anxiety and Depression as a Major Problem Among Their Peers"

PEW RESEARCH CENTER

However, teens in households with incomes below $30,000 are less likely than those in households with higher incomes to prioritize marriage and children. Some 56% of teens in households with incomes of $75,000 or more and 46% in households with incomes between $30,000 and $74,999 say getting married would be extremely or very important to them when they grow up, compared with 31% of those in the lower-income group. And while about four-in-ten in the higher- and middle-income groups (43% each) say having children would be extremely or very important to them, 27% of those in the lower-income group say the same.

Download the full report free: http://www.pewsocialtrends.org/wp-content/uploads/sites/3/2019/02/Pew-Research-Center_Teens-report_full-2.pdf

helping other people who are in need would be extremely (42%) or very (39%) important to them when they grow up.

Teens give lower priority to marriage and kids. About half (47%) say getting married would be extremely or very important to them as adults, and 39% say the same about having children.

When it comes to fortune and fame, 51% of teens say having a lot of money would be extremely or very important to them, while relatively few (11%) say the same about becoming famous.

For the most part, boys and girls have similar aspirations. Roughly equal shares of boys and girls say getting married, having kids, and having a job or career they enjoy would be extremely or very important to them as adults. But boys (61%) are far more likely than girls (41%) to say having a lot of money when they grow up would be extremely or very important to them.

Teens in lower-income households are less likely than higher-income teens to prioritize marriage or childrenTeens' aspirations are also fairly consistent across income levels, with similar shares in each income group saying having a job or career they enjoy, helping others in need, having a lot of money and becoming famous would be extremely or very important to them as adults.

# Excessively High Health Costs Drive 100 Million People around World into Poverty Annually



Addis Ababa, Feb 9, 2019, UN News Centre -- Following are UN Secretary-General António Guterres' remarks at the Africa leadership meeting on "Investing in Health", in Addis Ababa:

We should all be encouraged by the presence here today of so many political leaders and key health partners.

Good health is at the centre of our vision of a more sustainable, inclusive, peaceful and prosperous future. It is both an outcome and a driver of progress. Investments in health, and more broadly, in the continent's human capital, are among the best steps we can take to ensure the success of the [African Union's] Agenda 2063 and the 2030 Agenda for Sustainable Development.

But, we need those investments to be targeted and smart. This means focusing on high-quality, people-centred, physical and mental health services for everyone, everywhere. Tragically, for too many, health is inaccessible, unaffordable or altogether unavailable. Each year, 100 million people around the world are driven into poverty because health-care costs are too high. This is unacceptable.

Health is a fundamental human right. That is why the Sustainable Development Goals include a target of achieving universal health coverage. Funding is crucial. Current expenditures are simply not enough. We need to expand the fiscal space for health and reduce fragmentation in donor support. I call on all partners to ensure successful replenishments of the multilateral global health financing mechanisms. For their part, Governments need to strengthen financial management and collect

more taxes.  So-called "sin taxes", for example, on tobacco, alcohol and added sugar, have produced positive public health outcomes.

Africa's leaders have made strong commitments, and I applaud the tracking of those commitments through the Africa Scorecard on Domestic Financing for Health.  I welcome the call to action being made at this meeting to increase domestic investments in health and to reorient Africa's health spending to build resilient health systems.  This Call to action is a milestone towards this September's High- level Meeting of the General Assembly on Universal Health Coverage.

The United Nations and the World Health Organization (WHO) stand ready to support the African Union and your member States across the health agenda, including on sustainable health financing. In particular, the Global Action Plan for Healthy Lives and Well-Being for All coordinated by the World Health Organization is an important effort by 12 leading global health and development agencies. We must also leverage the power of the private sector and civil society.  For my part, last September, I launched a strategy for financing the 2030 Agenda for sustainable development, and I will continue pressing to scale up public and private finance and investment flows in the health arena.

There is, of course, no "one-size-fits-all" solution.  Each country must walk its own path towards this objective.  But, with each new baby safely delivered and vaccinated in a rural village, each new case of malaria treated and each infectious outbreak averted, we are building the foundations for the sophisticated systems needed for healthy societies.

Your leadership remains critical.  Together we can make health a reality for all.  Thank you.

# WHO: Countries spending more on health, but people still paying too much

Geneva, (WHO media release) 20 February 2019, Spending on health is outpacing the rest of the global economy, particularly in low- and middle-income countries, the World Health Organization (WHO) said on Wednesday. According to the UN health agency, "countries are spending more on health, but people are still paying too much out of their own pockets".

The agency's new report on global health expenditure launched on Wednesday reveals that "spending on health is outpacing the rest of the global economy, accounting for 10 per cent of global gross domestic product (GDP).

The trend is particularly noticeable in low- and middle-income countries where health spending is growing on average six per cent annually compared with four per cent in high-income countries.

Health spending is made up of government expenditure, out-of-pocket payments and other sources, such as voluntary health insurance and employer-provided health programmes.

While reliance on out-of-pocket expenses is slowly declining around the world, the report notes that in low- and middle-income countries, domestic public funding for health is increasing and external funding in middle-income countries, declining.

Highlighting the importance of increasing domestic spending for achieving universal health coverage and the health-related Sustainable Development Goals (SDGs), Dr. Tedros Adhanom Ghebreyesus, WHO's Director-General, said that this should be seen as "an investment in poverty reduction, jobs, productivity, inclusive economic growth, and healthier, safer, fairer societies."

Worldwide, governments provide an average of 51 per cent of a country's health spending, while more than 35 per cent of health spending per country comes from out-of-pocket expenses. One consequence of this is 100 million people pushed into extreme poverty each year, the report stresses.

When government spending on health increases, people are less likely to fall into poverty seeking health services. But government spending only reduces inequities in access when allocations are carefully planned to ensure that the entire population can obtain primary health care, the UN agency said.

"All WHO's 194 Member States recognized the importance of primary health care in their adoption of the Declaration of Astana last October," said Agnés Soucat, WHO's Director for Health Systems, Governance and Financing.

"Now they need to act on that declaration and prioritize spending on quality healthcare in the community," she added.

The report also examines the role of external funding. As domestic spending increases, the proportion of funding provided by external aid has dropped to less than one per cent of global health expenditure. Almost half of these external funds are devoted to three diseases – HIV/AIDS, tuberculosis (TB) and malaria.

The report also points to ways that policy makers, health professionals and citizens alike can continue to strengthen health systems.

"Health is a human right and all countries need to prioritize efficient, cost-effective primary health care as the path to achieving universal health coverage and the Sustainable Development Goals," Dr. Soucat concluded.

# 5 shocking facts about extreme global inequality and how to even it up



*Pratima lost her twin babies through delays and poor treatment after she gave birth at her local government clinic. In India, the highest-quality medical care is only available to those who have the money to pay for it.
Photo: Atul Loke, Panos/Oxfam
Source: Oxfam.*

Source: Oxfam. Our economy is broken. Hundreds of millions of people living in extreme poverty while huge rewards go to those at the very top. There are more billionaires than ever before, and their fortunes have grown to record levels. Meanwhile, the world's poorest got even poorer.

Many governments are fueling this inequality crisis. They are under taxing corporations and wealthy individuals, yet underfunding vital public services like healthcare and education. These policies hit the poor hardest. The human costs are huge, with women and girls suffering the most.

**Inequality is keeping people trapped in poverty, let's step up the fight against it.**

**Please join us to demand world leaders to tax the rich fairly and invest in vital public services that lift people out of poverty.**

## | Extreme poverty vs extreme wealth: how big is the inequality gap?



THE WEALTH OF THE WORLD'S BILLIONAIRES INCREASED $900 BILLION IN THE LAST YEAR, WHICH IS $2.5 BILLION A DAY

LAST YEAR 26 PEOPLE OWNED THE SAME AS THE 3.8 BILLION PEOPLE WHO MAKE UP THE POOREST HALF OF HUMANITY

**1. Boomtime for the world's billionaires.** It is 10 years since the financial crisis that shook our world and caused enormous suffering. In that time, the fortunes of the richest have risen dramatically. The number of billionaires has almost doubled, with a new billionaire created every two days between 2017 and 2018. They have now more wealth than ever before while almost half of humanity have barely escaped extreme poverty, living on less than $5.50 a day.

ONLY **4 CENTS IN EVERY DOLLAR** OF TAX REVENUE COMES FROM TAXES ON WEALTH.

IN SOME COUNTRIES THE POOREST **10%** ARE PAYING A HIGHER PROPORTION OF THEIR INCOMES IN TAX THAN THE RICHEST 10%.

**2. Wealth undertaxed.** While the richest continue to enjoy booming fortunes, they are also enjoying some of the lowest levels of tax in decades – as are the corporations that they own. Instead taxes are falling disproportionately on working people. When governments undertax the rich, there's less money for vital services like healthcare and education, increasing inequality and poverty.

TODAY **262 MILLION** CHILDREN WILL NOT BE ALLOWED TO GO TO SCHOOL.

IN KENYA, A POOR GIRL HAS A **ONE IN 250 CHANCES** OF CONTINUING HER STUDIES BEYOND SECONDARY SCHOOL.

**3. Underfunded public services.** At the same time, public services are suffering from chronic underfunding or being outsourced to private companies that exclude the poorest people. In many countries a decent education or quality healthcare has become a luxury only the rich can afford. It has profound implications for the future of our children and the opportunities they will have to live a better and longer life.

EVERY DAY **10,000 PEOPLE** DIE BECAUSE THEY LACK ACCESS TO AFFORDABLE HEALTHCARE.

LIFE EXPECTANCY IN THE RICHEST PARTS OF SAO PAULO, BRAZIL, IS 79 YEARS. IN THE POOREST AREAS OF THE CITY IT IS **54 YEARS**

**4. Denied a longer life.** In most countries having money is a passport to better health and a longer life, while being poor all too often means more sickness and an earlier grave. People from poor communities can expect to die ten or twenty years earlier than people in wealthy areas. In developing countries, a child from a poor family is twice as likely to die before the age of five than a child from a rich family.

MEN OWN **50% MORE** OF THE WORLD'S WEALTH THAN WOMEN, AND CONTROL OVER 86% OF CORPORATIONS.

THE UNPAID CARE WORK DONE BY WOMEN IS ESTIMATED **$10 TRILLION** - 43 TIMES THE ANNUAL TURNOVER OF APPLE.

**5. Inequality is sexist.** We all suffer when public services are neglected, but women and girls pay the highest price. Girls are pulled out of school first when the money isn't available to pay fees, and women clock up hours looking after sick relatives when healthcare systems fail. Most profoundly, our economic prosperity is dependent on the huge but unrecognized contribution made by women through unpaid care work.

## | Inequality is not inevitable

Children without teachers, clinics without medicines: the human cost of inequality is devastating. The growing gap between rich and poor is undermining the fight against poverty, damaging our economies and fueling public anger across the globe.

Yet inequality is not inevitable – it is a political choice. Concrete steps can be taken to reduce it. By taxing wealth more fairly, enough money could be raised globally to ensure that every child goes to school and no one is bankrupted by the cost of medical treatment for their families.

Join us to urge our political leaders to invest in vital public services and tax the rich fairly. It's time to fight inequality, and beat poverty for good.

# It's time to end extreme inequality



**PUBLIC GOOD OR PRIVATE WEALTH?**

Universal health, education and other public services reduce the gap between rich and poor, and between women and men. Fairer taxation of the wealthiest can help pay for them.

www.oxfam.org                    OXFAM

**Extreme inequality is hurting us all** - damaging economic growth, fuelling crime, and squandering the hopes and ambitions of billions who are trapped at the bottom with no way out.

Such stark inequality is not inevitable – **it is the consequence of political and economic choices**. With extreme wealth comes power and influence – we're living in a world where **the rules are rigged in favour of the few and at the expense of the many**. So while the wealth of the few grows greater, the poorest are left behind.

It doesn't have to be this way – **together we can even things up**. We can change the rules on tax to make sure the richest pay their fair share. We can demand more spending on public health and education to give the poor a fighting chance. We can demand fair wages for everyone. We can make sure the poorest have a voice, and those voices are heard by those in power.

## | Did you know?

Oxfam has calculated that in 2016 the <u>richest 8 people</u> on the planet owned as much as the 3.6 billion people who make up the poorest half of humanity. In other words, **1% have more wealth than the rest of the world combined**.

In 2015, **700 million people** were living in extreme poverty (below $1.90 per day).

**Seven out of ten people** live in countries where the gap between the rich and poor is worse than thirty years ago.

The incomes of the poorest 10% of people increased by less than $3 a year between 1988 and 2011, while the incomes of the richest 1% **increased 182 times as much**.

Corporate tax dodging costs poor countries **at least $100 billion every year**. Africa alone loses $14bn in tax revenues due to the super-rich using tax havens.

The very highest incomes are reserved **almost exclusively for men**. Of the 1,810 dollar billionaires on the 2016 Forbes list, 89% are men.

Without action, it will take **170 years to achieve equal pay** between men and women.

## | The time is now

The world has woken up to the gap between the rich and rest. From Spain to South Africa, and Peru to Pakistan, people are already demanding a world that is fairer than this.

# Why the majority of the world's poor are women



*Hoan works at the Tinh Loi Garment Factory, in North Vietnam, where she works on average 62 hours each week, earning around $1 an hour, packaging t-shirts and shirts for global export. Photo: Adam Patterson/Oxfam*

Gender inequality is one of the oldest and most pervasive forms of inequality in the world. It denies women their voices, devalues their work and make women's position unequal to men's, from the household to the national and global levels.

Despite some important progress to change this in recent years, in no country have women achieved economic equality with men, and women are still more likely than men to live in poverty.

## | Lower-paid, unpaid, undervalued: gender inequality in work

**Low wages**. Across the world, women are in the lowest-paid work.  Globally, they earn **23 percent** less than men and at the current rate of progress, it will take 170 years to close the gap. 700 million fewer women than men are in paid work.

**Lack of decent work**. 75 percent of women in developing regions  are in the informal economy - where they are less likely to have employment contracts, legal rights or social protection, and are often not paid enough to escape poverty. 600 million are in the most insecure and precarious forms of work.

**Unpaid care work**. Women do at least twice as much unpaid care work, such as childcare and housework, as men – sometimes 10 times as much, often on top of their paid work. The global value of this work each year is estimated at **$10 trillion** – which is equivalent to one-eighth of the world's entire GDP.

**Longer work days**. Women work longer days than men when paid and unpaid work is counted together. That means globally, a young woman today will work on average the equivalent of **four years more than a man** over her lifetime.

*Tabitha Mwikali, 36, is a domestic worker. She lives in Mukuru, one of Nairobi's biggest informal settlements. She is from Matuu in south eastern Kenya, where she has sent her children to live as she can't afford to feed them or send them to school on her weekly wage of 200 - 250 shillings (approx. $2.50).*
*Photo: Allan Gichigi/Oxfam*

## Increasing women's economic equality would reduce poverty for everyone

Gender inequality in the economy costs women in developing countries **$9 trillion a year** – a sum which would not only give new spending power to women and benefit their families and communities, but would also provide a massive boost to the economy as a whole.

Countries with higher levels of gender equality tend to have higher income levels, and evidence from a number of regions and countries shows closing the gap leads to reduction in poverty.

In Latin America for instance, an increase in the number of women in paid work between 2000 and 2010 accounted for **around 30 percent of the overall reduction in poverty** and income inequality.

Supporting women to have access to quality and decent work and improve their livelihoods is therefore vital for fulfilling women's rights, reducing poverty and attaining broader development goals.

Women's economic empowerment is a key part of achieving this. **We need a human economy that works for women and men alike**, and for everyone, not just a few.

# 4th UN Environment Assembly: Humans must learn to "Think Beyond, Live Within"

Source: UN Environment. The United Nations Environment Assembly, due to take place in Nairobi, Kenya, between 11-15 March 2019, is the world's highest-level environmental forum attended by Heads of State, environment ministers, CEOs of multinational companies, NGOs, environmental activists, and more, to discuss and make global commitments to environmental protection.

The Assembly is the year's best opportunity to track the latest developments in environmental policy and action, report on new stories and interview people in power, the world's foremost environmental innovators and those whose lives and livelihoods are threatened unless we embark on a path to sustainable consumption and production.

## Sustainable Production and Consumption

The fourth Environment Assembly zeroes in on the twin themes of innovative solutions for environmental challenges and sustainable consumption and production inspiring nations, private sector players and individuals to #SolveDifferent and take a critical look at their consumption and production patterns.

"For all the progress inspired by the Global Goals, one barrier impedes them all: the choices we make in our everyday lives continue to fuel consumption and production habits that are increasingly extending beyond the limits of our planet," H.E. Siim Kiisler President of the 2019 UN Environment Assembly.

Sustainable consumption and production addresses the life cycle of economic activities: the extraction of resources, their processing into materials and products, and the subsequent use and discarding of those products. They can also be broken down into specific economic activities in order to do more and better with less and identify priorities according to their environmental impacts and resource demands. Urging participants to "Think Beyond, Live Within", Member States at the Assembly will call for bold resolutions to stimulate sustainable consumption and production patterns across the world, through:

• Policy interventions
• Environmentally sound technologies
• Sustainable financing schemes
• Education, research and development
• Sharing of best practices
• Capacity-building and awareness-raising
• Private and public partnerships

"We have grown at the expense of our planet. To guarantee a sustainable future, we all need to work together to transform our patterns of consumption and production," Joyce Msuya, Acting Head of UN Environment said. "The 2019 UN Environment Assembly will provide a platform for game-changing innovations and ensure that we have a roadmap for these bold ideas to flourish."

The Assembly will further see the launch of the sixth Global Environmental Outlook, UN Environment's flagship report that provides a periodic review of the status of the three major economic and social systems, namely energy, food and waste systems. The GEO report outlines not only areas of most concern but also sheds light on the options that policymakers have to achieve environmental progress.

The launch of the report will be the catalyzer for science-based discussions on the environmental state and trends at the global, regional and local level. Scientists and government representatives will put forward assessments and expectations of environmental policy efforts, painting a clearer picture of the necessary transformation to our industry, agriculture, buildings, transport and energy sectors.

Side events at the assembly will be a platform

for in-depth conversations on the latest thinking, reports, data and action on environmental issues.

## | What to watch for:

**High-level leadership dialogues** bringing together Heads of State, environment ministers and business leaders to discuss the way forward to economies that embrace sustainable consumption and production, and the innovations that will get us here.

**Experts** from the private sector, prominent scientists and leaders in environmental protection.

**Environmental innovations**, showcased by some of the boldest pioneers in the field.

**Resolutions on sustainable consumption and production** – adopted by all 193 UN Member States – creating a framework for a circular economy and a sustainable future.

**Launch of the Global Environment Outlook:** UN Environment's flagship report will give a comprehensive overview of the overall state of our environment and how it affects our social and economic status.

**Media roundtables** with leaders of faith, business and innovation, sharing the broader story of environmental change and protection. Media roundtables will include:

**Faith for Earth:** Prominent Faith leaders will visit the Assembly to discuss ways to address environmental challenged through faith-based organizations: treating the earth as a gift.

**The latest in the fight against plastic pollution:** there are no silver bullets when it comes to plastic pollution. Making sure that nations and citizens adopt sustainable production and consumption patterns.

**Playing for the Planet:** how can the gaming industry promote the delivery of the Sustainable Development Goals via their platforms and through their industry?

**Green Collar jobs:** Sustainable production and consumption open up new opportunities for job creation. The International Renewable Energy Agency projects that the current 8.1 million renewable energy jobs could increase to more than 24 million by 2030. Key leaders from education institutions and various employment sectors will shed light on the future of Green Collared jobs.

**The launch of the UN Alliance for Sustainable Fashion:** Fashion is a 2.5 trillion-dollar industry that employs approximately 60 million people worldwide. It is a key economic sector. We need to improve the fashion industry's environmental footprint, by establishing a circular system for sustainable textile chains.

**For the latest schedule, attendees and events see:**
www.unenvironment.org/environmentassembly/

www.solvedifferent.eco

# Our consume and throwaway models of consumption are devastating the Planet

*By Joyce Msuyam, Acting Executive Director, UN Environment*

Source: World Resources Manual 2019

Global gross domestic product has doubled since 1970, enabling immense progress, and lifting of billions of people out of poverty. At the same time, this economic growth has been fueled by a relentless demand for natural resources. At no point in time nor at any level of income, has our demand for natural resources wavered.

Our consume and throwaway models of consumption have had devastating impacts on our planet. This report finds that 90 per cent of biodiversity loss and water stress are caused by resource extraction and processing. These same activities contribute to about half of global greenhouse gas emissions.

Moreover, the benefits of this type of resource use remain limited to but a few. Inequalities in the material footprint of countries, i.e. in the quantity of materials that must be mobilized globally to meet the consumption of an individual country, are stark. High-income countries maintain levels of per capita material footprint consumption that are 60 per cent higher than upper-middle income countries and more than thirteen times the level of the low-income countries.

Economic growth which comes at the expense of our planet is simply not sustainable. Our challenge is to meet the needs of all people within the means of our planet. Realizing this ambitious but critical vision calls on governments, business, civil society and people to reshape what we understand by progress and innovate to change people's choices, lifestyles and behaviours.

Through a combination of resource efficiency, climate mitigation, carbon removal, and biodiversity protection policies, this report finds that it is feasible and possible to grow our economies, increase our wellbeing and remain within our planetary boundaries. But action must begin now. While the report highlights some progress, it is clear that much more needs to be done.

Scientific findings such as those by the International Resource Panel and other global assessments, presented at the 2019 United Nations Environment Assembly, provide us an opportunity to take a close look at the global use of natural resources and importantly, identify action that can have the maximum impact on our planet and ensure we sustainability manage natural resources for generations to come.

## | Excerpt from the Global Resources Manual

The Global Resources Outlook 2019 builds on this body of evidence to present the story of natural resources as they move through our economies and societies. It is a story of relentless demand and of unsustainable patterns of industrialization and development. Over the last 50 years, material extraction has tripled, with the rate of extraction accelerating since the year 2000. Newly industrializing economies are increasingly responsible for a growing share of material extraction, a situation largely due to the building of new infrastructure. Virtually none of the massive growth in materials consumption in the new millennium has taken place in the wealthiest countries; however, not much of it has taken place in the poorest countries either, which make up the group in the most urgent need of higher material living standards.

## | Key Messages

**01.** The use of natural resources has more than tripled from 1970, and continues to grow.

**02.** Historical and current patterns of natural resource use are resulting in increasingly negative impacts on the environment and human health.

**03.** The use of natural resources and the related benefits and environmental impacts are unevenly distributed across countries and regions.

**04.** In the absence of urgent and concerted action, rapid growth and inefficient use of natural resources will continue to create unsustainable pressures on the environment.

**05.** The decoupling of natural resource use and environmental impacts from economic activity and human well-being is an essential element in the transition to a sustainable future.

**06.** Achieving decoupling is possible and can deliver substantial social and environmental benefits, including repair of past environmental damage, while also supporting economic growth and human well-being.

**07.** Policymakers and decision makers have tools at their disposal to advance worthwhile change, including transformational change at local, national, and global scales.

**08.** International exchanges and cooperation can make important contributions to achieving systemic change.

This is the story of the unequal distribution of the benefits of resource use and its increasingly global and severe impacts on human well-being and ecosystem health. While extraction and consumption are growing in upper-middle-income countries, high-income countries continue to outsource resource-intensive production. An average person living in a high-income country consumes 60 per cent more than someone in an upper-middle-income country and over 13 times what is consumed by someone in a low-income country. Overall, the extraction and processing of natural resources account for more than 90 per cent of global biodiversity loss and water stress impacts and for approximately half of global greenhouse gas emissions.

Finally, it is a story that can, and must, be changed. Modelling undertaken by the International Resource Panel shows that by 2060, with the right resource efficiency and sustainable consumption and production policies in place, growth in global resource use can slow by 25 per cent, global gross domestic product could grow by 8 per cent - especially for low- and middle- income nations - and greenhouse gas emissions could be cut by 90 per cent as compared with projections for continuing along historical trends. Such projections are based on the understanding that growth rates in emerging and other developing economies must be balanced by absolute reductions in resource use in developed countries.

There exist economically attractive and technologically feasible innovations and policy actions that can transform our production and consumption systems in such a way as to achieve our global sustainability aspirations. However, action must start now. The International Resource Panel welcomes this opportunity to provide to the international community science-based and policy-relevant recommendations for sustainable management of natural resources that enables economic prosperity and human wellbeing while also remaining within planetary boundaries.

# From fungus foam to pineapple pleather: 5 plastic alternatives to watch



## Beating pollution by redesign

Redesigning the "take-make-dispose" economy as a circular one is the only long-term solution.

*Source: UN Environment*

Our planet is in the midst of a plastic waste epidemic. Researchers estimate that more than 8.3 billion tonnes of plastic have been produced since the early 1950s. About 60 per cent of that plastic has ended up in either a landfill or the natural environment.

Some of the practical applications of plastic cannot be denied, especially in areas such as medical treatment and food preservation. The problem is that many uses of plastic are unnecessary, especially single-use products that have replaced viable reusable alternatives. This is a major issue, considering only 9 per cent of plastics have been recycled.

Much of the plastic that is discarded enters the natural environment, disrupting ecosystems and endangering wildlife. While traditional alternatives such as metal and glass should be utilized, new materials have entered the market that are better for the environment and have the potential to help us end our plastic addiction.

A new report from UN Environment explores the huge variety of plastic alternatives that have already sprung up. We've pulled out a few of those options here.



*Mycofoam is produced from agricultural waste. (Wikimedia)*
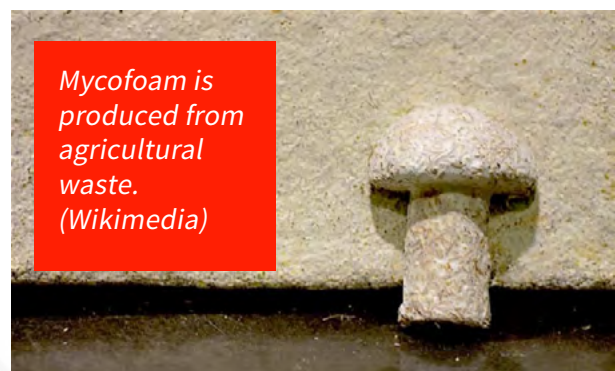
Mycofoam was developed by the company Ecovative as an alternative to expanded polystyrene, or EPS, the white foam that has become the material of choice to protect products during shipping, especially food and electronics. Mycofoam is made from agricultural waste that is placed into moulds and mixed with live mycelium fungus, which essentially grows the material into a finished shape that can be dried and used as a stable packing material.

Like traditional EPS, the material is impact resistant and can be formed into a variety of shapes to suit a customer's needs, yet it biodegrades in nature and is made from

renewable resources. Already companies have used it to replace EPS, including Dell Computers, which have used Mycofoam to help their production line become 94 per cent waste free.

## | Manufacturing textiles with milk



*Milk fibres and a pitcher of milk are pictured in the studio of fashion designer and microbiologist Anke Domaske in Hanover. Domaske uses milk yarn that is made from milk protein fibres, which is extracted from milk that did not meet hygiene standards, to create her fashion. The milk fibres contain 18 amino-acids that are beneficial to health, Domaske said. She needs six litres of milk to make a dress. REUTERS/Fabian Bimmer*

As strange as it sounds, milk has been used to make plastics since the early 20th century. Using a chemically intensive process involving the casein protein found in milk, early plastics manufacturers used the material for buttons and synthetic fabrics, however it quickly fell out of favour when new petroleum-based forms of plastic emerged in the 20th century.

Since 2011 German entrepreneur Anke Domaske, with her company QMilch, has been using a modified form of this technique to create sustainable textile fibres from milk that would otherwise be wasted. Domaske simplified the old process of creating casein plastic, and pioneered a method that uses significantly less chemicals and produces a durable biopolymer with a multitude of uses, especially in the garment industry. And because her company sources old milk from producers that would otherwise throw it away, the entire supply chain benefits the environment.

## A leather alternative made from pineapple fibre



*A close look at the Piñatex "pineapple leather", which is made from discarded pineapple leaves. (Wikimedia)*

As versatile as it is, not everyone can wear leather, whether it be for moral, environmental, or economic reasons. Artificial leather has long been produced as a cheaper alternative, but the process of creating it from fabric and plastic is unsustainable. Piñatex, manufactured by the London-based company Ananas Anam, is an environmentally friendly and durable alternative made from pineapple leaves.

Because no additional resources are needed – pineapple farming results in lots of leftover leaves – the entire process fits within a sustainable, circular supply chain and provides additional income to farmers. After harvest, farming communities in the Philippines collect the discarded leaves and extract the fibres from them, which are then processed into a mesh and sent to a factory in Spain for finishing. The final product is then shipped directly to designers and manufacturers, who are already using Piñatex in the production of shoes, bags and furnishings.

## | Edible cutlery



*An Indian company is producing edible spoons to replace plastic disposable versions (Bakeys).*

A key strategy for stopping the flow of plastic waste into the environment is curbing our consumption of single-use products. This is especially true in the restaurant industry, which in recent decades has seen a marked increase in the use of plastic plates, straws and cutlery.

Enter Bakeys, which was founded in 2010 by Narayana Peesapaty. The Indian company has developed a simple yet groundbreaking alternative to plastic utensils, edible spoons made from sorghum flour, an energy efficient and resilient crop commonly grown in South Asia, Africa and Central America. The spoons are durable, easy to eat, and come in three flavours: plain, sweet and savoury. While at the moment they are available only in India, the company is looking to increase production and begin competing with plastic cutlery.

## Plates and bowls made from leaves



*An example of biodegradable dishware made from palm leaves (Pixabay).*

Plant leaves have a long history of being used as plates in communities around the world. While this method of food consumption worked for much of human history, single-use plastic plates and bowls have made their way into markets that previously utilized the natural resources around them. To counter this trend several companies are using old technologies to create new types of disposable plates and bowls that don't harm the environment.

One such company is Leaf Republic, a Germany-based start-up that sells food packaging produced in the method of traditional Indian Patraveli plates. The plates and containers – which replace the plastic-based clamshell packaging commonly found in restaurants – are stitched together from leaves, pressed and then dried.

Little Cherry is another company that is promoting a sustainable but profitable alternative to plastic. The UK-based business sells party supplies derived from the leaves of the areca palm, which are left over during the production of betel nut in India. While the materials used are different, both are examples of how traditional materials can be repurposed sustainably in the 21st century.

# Emerging Issues of Environmental Concern



24 January 2019, Source: UN Environment - From the innovations and ethical dilemmas of synthetic biology to the options for appropriate international adaptation to climate change: Frontiers 2018/19 explores the emerging environmental issues facing the planet.
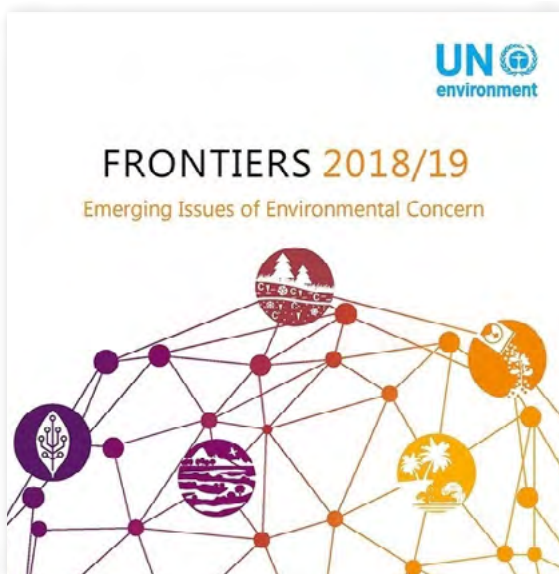


Will the cutting edge of genetic splicing techniques lead to a huge boon for human and environmental health, provided regulation can successfully control the risk of unintended ecological consequences? Will we act in time to prevent the further degradation of climate-critical permafrost peatlands and avert reaching the threshold of a potential runaway global greenhouse effect? Can we avoid the pitfalls of maladaptation to overarching climate change and move forward with wisdom to mitigate the worst effects – for all, not the few?

UN Environment experts will address these and other emerging issues with the launch of Frontiers 2018/19, its latest report on the most novel environmental challenges facing the planet. The UNEP Frontier series links new science to outcome-oriented policies in relation to the health of the environment and its sustainability. The 2018/19 edition continues the tradition of highly referenced texts accompanied by illustrative infographics and featuring the interactivity of links to videos on related research and information.

Frontiers 2018/19 will launch on 4 March 2019 prior to the fourth UN Environment Assembly in Nairobi, Kenya. The report covers five key emerging issues: the latest developments in synthetic biology; the critical advantages of landscape connectivity; the complex interactions and vulnerability of permafrost peatlands; the challenges of widespread nitrogen pollution; and the hazards of maladaptation in a world of climate change. Read on for an outline of each topic.

# | Synthetic Biology: Re-engineering the environment



The ability to successfully alter organisms at the genetic level has excited scientists and the general public alike. Gene-editing techniques are advancing rapidly, bringing the promise of many biological and ecological benefits, from eradicating human diseases to preventing species extinction. CRISPR-Cas9 is the latest, quickest tool in the genetic editing tool box, allowing extraordinary precision in the manipulation of genomes.

However, this ability to create synthetic life and alter existing DNA carries with it the risk of cross contamination and unintended consequences. Hacking the code of life has such major implications that there is an urgent need for governing bodies to collaborate and cooperate in ensuring safe research and development in this field. The rise of the DIY biohacker and the risk of the accidental release of genetically modified organisms into the environment is a cause for regulatory concern. Many of the benefits and challenges of synthetic biology are explored in this fascinating chapter.

# | Ecological Connectivity: A bridge to preserving biodiversity
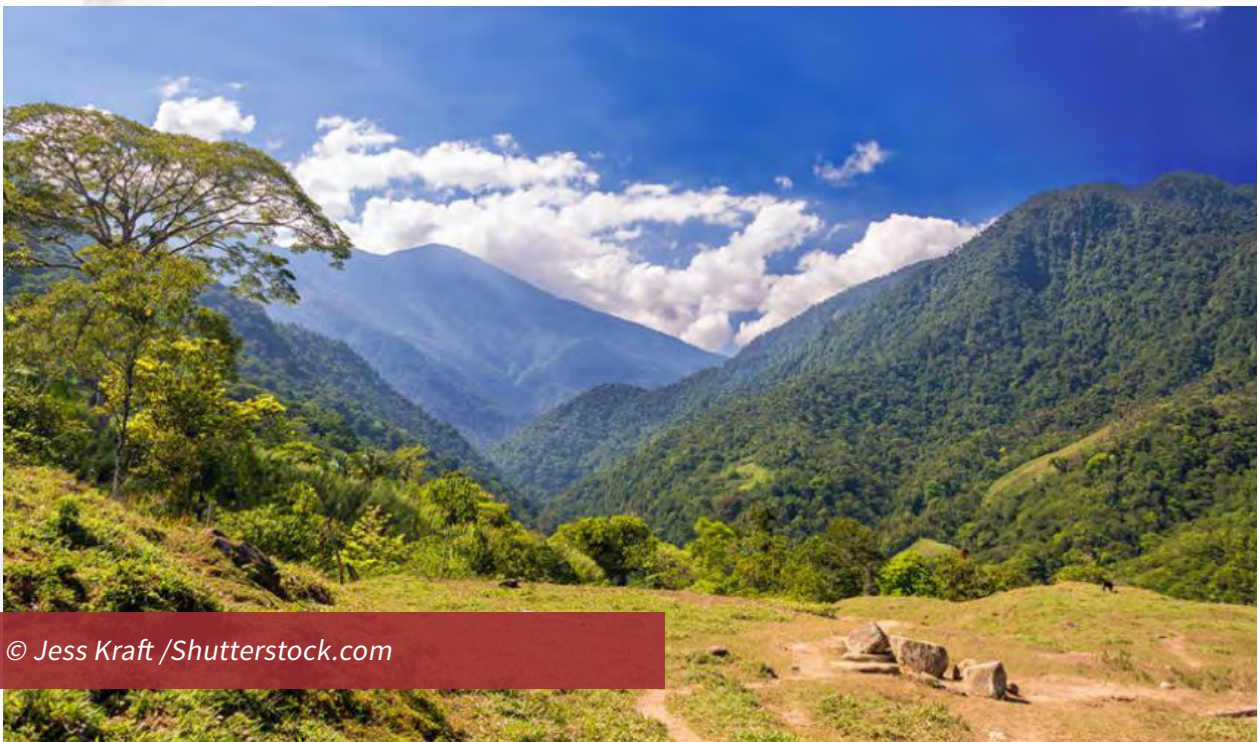


© Jess Kraft /Shutterstock.com

Large-scale industrialization has resulted in widespread fragmentation of previously intact landscapes around the globe. From the clearance of richly populated rainforests to the damming of mighty, arterial rivers, the knock-on effect of isolated, impacted ecosystems is detrimental to the health of flora and fauna alike, and in severe cases, threatens species extinction. Landscapes are also not limited to the terrestrial realm as ecosystem connectivity extends beyond continental shores into marine seascapes and the oceans.

Initiatives to promote landscape connectivity are offering hope in various global locations, but much more focus in planning to reconnect habitat patches or preserve existing connectivity is needed. This is vital to preserving the remaining biodiversity and to protect the interlinked ecosystems on which we all depend. National efforts require expansion to the international level, as ecosystems are

not bounded by country borders. From marine reserves to wildlife corridors and beyond, this wide-ranging chapter explores the issues of, and solutions to, fragmentation in the natural world and the imperative for joined-up thinking in planning for the preservation and conservation of biodiversity and species survival.

## | Permafrost Peatlands: Losing ground in a warming world



© Hans Joosten

With rising global temperatures, the Arctic is warming twice as fast as the global average and scientists are becoming increasingly alarmed at the accelerating rate of permafrost thaw. While research is ongoing, too little is currently known of the intricate relationships and dynamics between the perennially frozen ground that is permafrost and the insulating layer of dead plant remains – or peat – that covers a significant percentage of the Northernmost areas of our planet.

Permafrost thaw not only has direct impacts on the ecology and infrastructure of the peatland regions, it is also a potential 'tipping element' towards a runaway greenhouse effect. Preservation of these rich soil-carbon deposits is imperative to cushion the global effects of climate change and to avoid the worst effects and risks of unlocking these frozen assets, which keep carbon and other greenhouse gases sequestered underground and out of the atmosphere. Likely scenarios and the collaborative research urgently needed to ensure preservation of these crucial deposits are thoroughly explored in this chapter, from the ground up.

## | The Nitrogen Fix: From nitrogen cycle pollution to nitrogen circular economy



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Nitrogen is one of the most abundant natural elements and largely benign in its unreactive forms. However, too much of a good thing can be detrimental, and excess nitrogen pollution has grave impacts on ecosystems and humans alike. In the form of nitrous oxide, it is 300 times more powerful than carbon dioxide as a greenhouse gas, in addition to the effects of various nitrogen compounds on air quality, ground and water, and the ozone layer.

A cohesive global approach to nitrogen management is needed in order to transform the nitrogen cycle into a sustainable, non-polluting, profitable circular economy. Although there has been some progress at the national level, a truly holistic approach to implementing effective nitrogen management strategies will require international cooperation. This highly informative chapter

explores the detail and chemistry of the nitrogen pollution issue and potential routes to fixing it. If successful, the transition to a circular economy for nitrogen could be a trailblazer in wise scientific and policy decisions towards achieving the goal of a pollution-free planet.

## Maladaptation to Climate Change: Avoiding pitfalls on the evolvability pathway



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Broadly speaking, evolution depends on successful adaptation, and maladaptation results in failure. In terms of climate change, strategies for adaptation need to address vulnerabilities and increase resilience on a global scale, and avoid short-term fixes that may only have local benefits. It is becoming clear that international cooperation and planning are needed to avoid adaptations that may appear to offer mitigation, but which actually compound the problem.

This intriguing chapter explores the distinction between true adaptation, maladaptation and sham adaptation. It delves into the crucial discussions in international fora and case studies of what constitutes maladaptation in relation to the imperative to keep the post-industrial global average temperature increase below 1.5°C. This relatively new area of focus for policymakers will exercise the human attribute of foresight in order to attain the requisite 'evolvability'. Long-term vision in designing development and adaptation policies will be required to make the right sustainable decisions for future generations.

# Surfing a wave of change: Clean Seas campaign celebrates two years of action



World first: Dhow made from plastic waste to sail along Africa's coast to raise awareness about single-use plastic

Read more

Source: UN Environment. 22 Feb 2019, The remote Galápagos islands offer a distressing reminder of the destructive power of our plastic addiction with horrifying images of iconic species struggling on rubbish-strewn shorelines that were for so long a byword for isolation and purity.

But Ecuador's renowned islands also bear witness to what can be achieved when outrage is channelled into positive action. This is the central tenet of the UN Environment's Clean Seas campaign, which has galvanized communities since its launch in February 2017.

Fifty-seven countries—from Argentina to Yemen—have joined, pledging to cut back on single-use plastics, protect national waters and encourage more recycling. The campaign now represents the world's largest global alliance for combatting marine plastic pollution with commitments covering more than 60 per cent of the world's coastlines.

It's not just governments that have come on board. From shoppers refusing plastic-smothered goods to Internet influencers inspiring others to share their zero-waste lifestyles, a worldwide awakening has taken hold, and it's spreading.

More than 100,000 people have taken the Clean Seas pledge to reduce their plastic footprint. Many use the hashtags #CleanSeas and #BeatPlasticPollution on Twitter and Instagram to urge others to follow their lead and cut single-use plastics from their lives.

Latin America and the Caribbean have been to the forefront of this global movement, and Ecuador is among 17 countries in the region that have joined the Clean Seas campaign.

"The countries and citizens of Latin America and the Caribbean are taking bold and exemplary steps to beat plastic pollution and protect their valuable marine resources," said Leo Heileman, UN Environment's regional director in Latin America and the Caribbean.

"Governments are regulating single-use plastics by passing several bans and citizens are taking action through massive clean-ups and campaigns. But we need more efforts from industry to find innovative alternatives to plastic," said Heileman.

For the rare species on the Galápagos islands, 600 miles off Ecuador's coast, this is a matter of life or death.

"We have seen pelicans, iguanas and sea lions caught in plastic bags, nets and ropes," said Jorge Carrión, director of the Galápagos National Park. "When the plastic breaks down into microplastics, it can enter the food chain: the fish eat it and then human consumption could be affected."

Island authorities have introduced laws to ban single-use plastic items, such as straws and bags. Volunteers and fishermen have helped clean remote beaches while waste management services have been reinforced.

Much of the waste that washes up on the Galápagos comes from other countries, illustrating the need for a global push against throwaway plastic.

On the other side of the world, India joined the Clean Seas campaign as it hosted World Environment Day last June, promising to eliminate all single-use plastics by 2022—a potentially game-changing move from a country of around 1.3 billion people.

Another plastic pioneer is Kenya, which joined the campaign in December 2017 and has also imposed one of the world's toughest bans on plastic bags.

Other notable Clean Seas commitments include:

- Nigeria, Africa's most populous country and one of the world's top 10 plastic polluters, has pledged to open 26 major plastic recycling plants.
- Sweden pledged roughly US$1 million in support for UN Environment's work on marine plastic.
- Vanuatu, which joined the campaign last year, became the first country in the world to ban plastic straws in May.
- Panama banned polyethylene bags in early 2018.
- Costa Rica has adopted a national strategy to drastically reduce the use of disposable plastics by 2021.
- Belize, Bahamas, Bermuda and Jamaica have passed or are drafting laws to eradicate single-use plastics.

Last May, Chile became the first South American country to approve a nationwide ban on single-use plastic bags. The ban came into force this year for major retailers.

Australia, which joined in October, pledged that 100 per cent of its packaging would be reusable, compostable or recyclable by 2025 and unnecessary single-use packing would be phased out through design, innovation or introduction of alternatives.

Brazil, a member of the campaign since September 2017, is working with UN Environment and partners on a National Action Plan on Marine Litter. Last November, a public consultation on this topic was launched.

National authorities are not the only ones showing leadership. In August, the city of Tijuana in Mexico became the first Mexican city on the border with the United States to approve a ban on disposable plastic bags. Several other states and cities, including Querétaro, have also banned plastic bags, even though Mexico has not joined the Clean Seas campaign officially.

Individuals can also make a difference: in Kenya, entrepreneurs and volunteers built a traditional dhow out of recycled plastic and flip flops to dramatically illustrate how wasteful it is to discard plastic. The flamboyant Flipflopi set off from the island of Lamu in January and sailed to Zanzibar, stopping at towns and cities along the way to spread a #plasticrevolution.

UN Environment has harnessed the power of social media to encourage such actions. Ahead of World Environment Day last year, it encouraged people to join a global game of #BeatPlasticPollution tag and share what plastic items they were willing to give up.

To extend this digital conversation, UN Environment released a short film in time for Valentine's Day last year, urging viewers to "Break-Up" with plastic by, for example, using refillable water bottles and carrying reusable bags. It was viewed around 3.4 million times. A follow-up film was produced in December and had 5 million views.

The Clean Seas campaign also launched a "Back to School Plastic Challenge" alongside the German animation studio Kurzgesagt to encourage schools and youth groups to find

creative ways to reduce or eliminate single-use plastics. Kurzgesagt produced an explanatory video comparing our modern plastic scourge to the legend of King Midas, who learned to rue his power to turn everything he touched to gold.

The world of sport has embraced the Clean Seas campaign, turning a host of events into rallying calls for action. In January, China's Xiamen road race became the first international marathon to join the campaign, with organizers pledging to reduce plastic waste by 60 per cent.

Organizers of the gruelling 2017/18 Volvo Ocean Race reduced plastic use in their race villages in 12 cities across six continents, working with suppliers and local businesses to recycle any material used. Water refill points meant around 388,000 single-use plastic bottles were not used and some 20,000 people took the Clean Seas pledge.

Meanwhile, the young team on the Turn the Tide on Plastic yacht kept the Clean Seas message front-and-centre as they competed in the round-the-world race. Skippered by Briton Dee Caffari, they also collected data from remote oceans, measuring, among other things, levels of microplastic pollution.

In August last year, endurance swimmer Lewis Pugh completed his epic record-breaking swim along the length of the English Channel to raise awareness of the need to do more to protect our oceans from threats such as plastic pollution, overfishing and climate change.

Businesses also have a role to play, particularly in leading moves towards a circular global economy that eschews the old take-make-waste model. The growing public outcry for more sustainable practices can no longer be ignored and the economic rationale for inaction is increasingly seen as false.

From innovators seeking alternatives to plastic to conglomerates pledging to make their packaging easier to recycle, the only limit is imagination. Some of these groundbreaking ideas will be up for discussion at the fourth UN Environment Assembly in Kenya in March. The motto for that meeting is to think beyond prevailing patterns and live within sustainable limits.

The Clean Seas campaign has sparked a global revolution in how we view and use plastic. But much remains to be done and time is not on our side. There is no silver-bullet solution and plastic pollution cannot be neutralized by one sector of society or a single country.

For Jorge Carrión, director of the Galápagos National Park, our gigantic plastic problem requires action from us all.

"Often we blame businesses and we do not assume our own responsibility for buying plastics and then failing to recycle them," he said. "These campaigns (like Clean Seas) help to raise awareness among people but it is also necessary to raise awareness among decision makers to adopt regional and sectional policies with greater reach."

*Ahead of the United Nations Environment Assembly in March 2019, UN Environment is urging people to Think Beyond and Live Within. Join the debate on social media using #SolveDifferent to share your stories and see what others are doing to ensure a sustainable future for our planet.*

# Future networked vehicles claimed to be safer



*By Roger C. Lanctot, Director of Automotive Connected Mobility at Strategy Analytics*

On 7 March 2019, the International Telecommunication Union (ITU) and the United Nations Economic Commission for Europe (UNECE) will convene the Symposium on the Future Networked Car (FNC-2019) within the 89th Geneva International Motor Show. The topic of vehicle safety will be front and center amid panel discussions addressing autonomous vehicle development, artificial intelligence, mobility services and cybersecurity.

Every year more than a million lives are lost on roadways throughout the world – 1.25 million, to be exact. Suppliers to the automotive industry are increasingly touting their technological solutions to this challenge – leaving carmakers and regulators to prioritize these offerings in the interest of humanity.

In a world of increasingly connected cars, wireless technology appears to offer the most direct path to crash avoidance and zero fatalities. The efficacy of different solutions is at the core of the emerging debate over the shortest path to life-saving implementations.

FNC-2019 takes place on the eve of the European Parliament's vote – most likely by 15 March – on the so-called 'Delegated Act' regarding the adoption of vehicle-to-vehicle communications technology in Europe. It is not clear whether the vote will actually happen or which way it will go, but the discussion within the EU highlights the emerging role of cellular wireless technology alongside Wi-Fi-based DSRC (dedicated short-range communications) technology for enabling inter-vehicle communications.

RELATED: To 5G or not to 5G? Automotive safety may hang in the balance

At the same time, in the U.S., the National Transportation Safety Board (NTSB) put forth a statement

just weeks ago asserting that existing safety technologies capable of helping drivers avoid crashes should be adopted without delay. Among the solutions favored by NTSB and cited on its 'Most Wanted List' to improve highway safety are:

- Eliminate distractions – ban on the use of all personal electronic devices on roadways, among other recommendations.
- Reduce fatigue-related accidents
- End alcohol and other drug impairment – reduce legal limits
- Increase implementation of collision-avoidance systems including collision warning and automatic emergency braking
- Implement a comprehensive strategy to reduce speeding-related crashes – adoption of intelligent speed-adaptation systems
- Require medical fitness, and screen for and treat obstructive sleep apnea
- Strengthen occupant protection

The NTSB recommendations reflect the increasing attention being paid to driver monitoring systems in the U.S. and Europe. Driver monitoring systems are expected to become part of Euro-NCAP's 5-star criteria by 2020.

At the same time, European regulators and standards-setting bodies are in the process of recognizing the need to integrate cybersecurity with safety systems to ensure reliable functionality of these systems. This topic will be on the table in the context of the evolving autonomous vehicle landscape and emerging mobility services.

FNC-2019 will feature speakers including:

- Houlin Zhao, ITU Secretary-General
- Olga Algayerova, UNECE Executive Secretary
- Jean Todt, UN Secretary-General's Special Envoy for Road Safety, and President of FIA
- Johannes Springer, CEO, 5G Automotive Association
- Teodor Buburuzan, Device Connectivity Engineer (EECP/3), Volkswagen
- Dino Flore, Vice-President Technology, Qualcomm
- Onn Haran, CTO, Autotalks
- Miquel Banon, Dekra
- Martin Rosell, CEO, WirelessCar
- David Barzilai, Chairman and Co-founder, Karamba Security
- Oren Betzaleli, Senior Vice-President & GM, Software Platforms, HARMAN
- Max Cavazzini, EMEA Automotive & Manufacturing Lead, Amazon
- Bryn Balcombe, Chief Strategy Officer, Roborace
- Holger Weiss, CEO and Founder, German Autolabs
- David Ward, President & CEO of Global NCAP, President & CEO of the Towards Zero Foundation

The full list of FNC-2019 speakers can be found on the symposium programme.
Preceding FNC-2019 will be the SHIFT Automotive event, 6 March, in Hall 6 on the show floor of the Geneva International Motor Show. Keynotes at SHIFT include Microsoft's Senior Director of Internet of Things (IoT) and Intelligent Edge, Avijit Sinha; to be followed by Dimitri Konstantas, Director of the Information Sciences Institute, University of Geneva; Sebastien Ruffino, Head of Business Development and Strategic Alliances for Bestmile; Vitaly Pnomarev, CEO of WayRay; and Bill Wyman, Vice-President of Global Marketing for car audio at HARMAN.

*Learn more about the status and future of connected, automated driving from the wrap-up video of the 2018 Symposium on the Future Networked Car.*

# The State of Knowledge of Crimes that have Serious Impacts on the Environment



In July 2018, a report entitled "The State of Knowledge of Crimes that have Serious Impacts on the Environment" was published by the United Nations Environment Programme (UN Environment) and the United Nations Interregional Crime and Justice Research Institute (UNICRI).

In response to Resolution 2/14 paragraph 7 of the UN Environment Assembly, this global multi-country report identifies current knowledge on environmental crimes and analyses approaches and practices to combat the phenomenon. The report intends to contribute to a deeper understanding of crimes that have serious impacts on the environment, and to the development and better implementation of counter-measures at the international, regional, and national levels.

UN Environment and UNICRI developed the report based on an "experts process" involving a Technical Advisory Committee, an Expert Group, and the UN Environment Programme focal points on the progressive development of environmental law ("Montevideo focal points").

Environmental crimes are widely recognized as among some of the most profitable forms of transnational criminal activity. Economic benefits, substantial demand and institutional and regulatory failures are the main drivers of this criminal phenomenon. Poverty also represents the trigger that facilitates the recruitment of low-level perpetrators.

Environmental crimes involve comparatively low risks for criminals, this may be in part explained by the fact that is some countries such crimes were not regarded as a priority which has resulted in the lack of appropriate and proportionate governmental responses. Many governments lack the resources to effectively prevent, detect and investigate environmental crimes. Even when resources are available, efforts may be compromised by corruption.

The report reviews the magnitude of the problem and key trends in terms of main perpetrators and hotspots regions and countries for six different types of environmental crimes.

Environmental crimes can be perpetrated by different actors, including individuals, small groups, companies and corporations, corrupt government individuals, criminal networks

and often a combination of them. The report highlights the interlinkages among crimes that have serious impacts on the environment, as well as the links with other serious crimes involving organized crime.

The report also presents the main gaps identified in tackling environmental crimes and the types of responses implemented at global, regional and national levels. It is expected that the outcomes of the study will contribute to increase the capacity of governments in preventing, combating, and ultimately reducing environmental crimes.

Environmental crimes undermine sustainable development and contribute to the acceleration of climate change (mainly though accelerated tropical deforestation).

Such crimes undermine the rule of law, good governance and fuel geopolitical conflicts. Criminal groups exploit impoverished communities and deprive governments of vast revenues that could be used to support development. These impacts point to the need for the international community to recognize environmental crimes as serious threats to peace and sustainable development, to reinforce measures and to strengthen coordination, to effectively combat them.

Download the report

# SECTION 2

# SDG 1:

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**World Trade Organization strategic plan to help least developed countries gain more from trade**

# 1 NO POVERTY

## SDG 1: World Trade Organization strategic plan to help least developed countries gain more from trade

Kampala, Uganda, 26 February 2019, World Trade Organization media release -- A new Strategic Plan launched by the Enhanced Integrated Framework (EIF) seeks to deepen efforts to assist least developed countries (LDCs) benefit from trade. The goals of the new plan are to improve the trade environment for LDCs so there is inclusive and sustainable growth, and to increase their exports and access to international markets.

Officially presented for the first time on 19 February in Kampala, Uganda, the new 2019-2022 Strategic Plan is designed to better position LDCs in the global economy at a time of growing concerns about trade. Housed in the WTO, the EIF is a multi-partner programme dedicated to addressing the trade capacity needs of LDCs.

With an unstable global economy and high trade costs creating uncertainties across the world, the EIF will focus its work on fragile countries and providing the adaptability needed as well as increasing engagement and support for micro, small and medium sized enterprises (MSMEs) and women in trade. The redoubling of efforts includes maximizing the work the EIF does best – meaning forging close working relationships with LDC governments, creating unique mechanisms for coordination across sectors, partners and ministries and serving as a catalyst for in-country investments in trade.

Drawing from past e-commerce research in a handful of countries, new targets will involve supporting the use and uptake of technology in LDCs that draws from evidence-based trade studies.

"The EIF does vital work and is making a real impact on the ground," noted WTO Director-General Roberto Azevêdo. "But of course there is still a huge amount of work to be done. We are grateful for the EIF partners' strong commitment to our ongoing efforts to take this work forward, as encapsulated in the new Strategic Plan. Together we can ensure that the EIF continues to deliver for the LDCs."

"The EIF has been on a remarkable journey over the past decade," said EIF Executive Director Ratnakar Adhikari. "We have built the country ownership that is essential for LDCs to achieve sustained trade development. We must redouble our efforts to make LDCs more competitive."

The EIF 2019-2022 Strategic Plan is available here.

The Enhanced Integrated Framework (EIF) is the only multilateral partnership dedicated exclusively to helping LDCs use trade as an engine for growth, sustainable development and poverty reduction. It is a unique global partnership between LDCs, donors and partner agencies, including the WTO, which work together to build trade capacity in LDCs.

More information on the EIF is available here.

## IMPORTANCE TO TRAVEL & TOURISM

Trade leads to prosperity. And prosperity creates demand for travel. Many points in the Enhanced Integrated Framework plan are applicable to tourism, and can easily be adopted and adapted to serve the same beneficial purpose.

# 1 NO POVERTY

# SDG 1:

Innovative impact fund to create jobs for rural youth in developing countries

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## 1 NO POVERTY

# SDG 1: Innovative impact fund to create jobs for rural youth in developing countries

Rome, 15 February 2019, International Fund for Agricultural Development - An impact fund with an innovative approach for attracting much needed capital to the rural areas of developing countries will be launched today at the annual meeting of Member States of the International Fund for Agricultural Development (IFAD).

IFAD, along with the European Union, the African, Caribbean and Pacific Group of States (ACP), the government of Luxembourg and the Alliance for a Green Revolution in Africa (AGRA), will launch the Agri-Business Capital (ABC) Fund to help rural entrepreneurs in the agricultural sector access the finance they need to grow their businesses and create jobs for poor rural people, in particular young people.

The aim of the ABC Fund is to generate private sector investment in rural small and medium-sized enterprises (SMEs), farmers' organizations and smallholder farmers' groups which often find it hard to access finance from traditional institutions who view them as too risky.

"Small and medium-sized enterprises can be an engine for development and offer rural communities a pathway out of poverty and hunger, but only if they can access the resources they need," said IFAD President Gilbert F. Houngbo. "The launch of the ABC Fund is an important step to realize the huge potential of small farmers, their organizations, and most importantly young people."

It is estimated that more than half of the 1.2 billion young people in the world live in rural areas. Young people are two to three times more likely than adults to be unemployed. In Africa alone, 10 to 12 million young people enter the job market every year.

Neven Mimica, European Commissioner for International Cooperation and Development,

emphasized the potential impact of the ABC Fund investments on smallholder households.

"Smallholders and rural businesses are not getting the investment they need from the private sector! ABC Fund will help us address this gap, improve their access to capital and consequently the lives of 700.000 rural households," he said.

In line with its focus on promoting private-sector development, Patrick I. Gomes, ACP Secretary General, highlighted the transformative effect the ABC fund could have in poor rural communities.

"Our African, Caribbean and Pacific members have great expectations of the ABC Fund," he said. "We look forward to having the Fund respond to specific needs in the three regions and supporting the implementation of our new approach to structurally transform the ACP agricultural sector. This fund, which aims to contribute to wealth and job creation, particularly for our youth, should significantly enable ACP countries to add value, extract higher rents from commodities, diversify and further integrate into global value chains."

Paulette Lenert, Luxembourg's Minister for Development Cooperation and Humanitarian Affairs, said her government has been a critical partner in the fund's development.

"In line with the Addis Ababa Action Agenda on Financing for Development, Luxembourg has been very active in the field of sustainable impact investment and innovative financing mechanisms," she said. "This has been the case in green and inclusive finance, in labelling and in social performance measurement, as well as in mobilizing private capital for the SDGs. Luxembourg is very proud of having been instrumental, from the first hour, in bringing about this innovative project.'

The ABC Fund aims to raise EUR 200 million over the next 10 years. It will provide loans adapted to the needs of SMEs. Loan size will range from EUR 20,000 to EUR 800,000. The ABC Fund will work through financial institutions for loans in the range of EUR 20,000 to EUR 200,000, while providing loans between EUR 200,000 and 800,000 directly to investees.

AGRA President Agnes Kalibata, said her organization, with its focus on developing private-sector capacity for technology adoption in Africa, will build on this work as the fund is rolled out across the continent.

"AGRA is delighted to partner with IFAD, EU, and the Government of Luxembourg on this unique and game-changing fund that will provide loans of below 1 million euros which is what most African small rural agri-businesses need to grow and continue delivering previously unavailable, inaccessible and unaffordable services to millions of smallholder farmers," she said.

IFAD and AGRA, both with operations on the ground in rural communities, will work closely with the fund manager to identify investment opportunities with promising SMEs.

The ABC Fund is an independent fund based in Luxembourg and its investment portfolio will be managed by Bamboo Capital Partners with Injaro Investments Limited as investment advisor.
"Bamboo is proud to collaborate with IFAD on a forward-looking investment strategy, focused on smallholder farmers' productivity, market access, domestic value creation and resilience," said Jean-Philippe de Schrevel, CEO, at Bamboo Capital Partners.

Commitments to the ABC Fund include: EUR 45 million from the European Union and the ACP (including 5 million for technical assistance), EUR 5 million from Luxembourg and EUR 4.5 million from AGRA.

Visit the Agri-Business Capital (ABC) Fund page
Visit the Governing Council page here

## IMPORTANCE TO TRAVEL & TOURISM

Travel & tourism is all about SMEs. From souvenir shops to suppliers of farm products, SMEs dominate the entire value chain. A lot more can be done to help them thrive and survive in an age of globalisation and technological change.

# SDG 3:

## International push to improve food safety

## SDG 3: International push to improve food safety

Rome, (FAO media release) 12 February 2019 - Greater international cooperation is needed to prevent unsafe food from causing ill health and hampering progress towards sustainable development, world leaders said at today's opening session of the First International Food Safety Conference, in Addis Ababa, organized by the African Union (AU), the Food and Agriculture Organization of the United Nations (FAO), the World Health Organization (WHO) and the World Trade Organization (WTO).

A follow-up event, the International Forum on Food Safety and Trade, which will focus on interlinkages between food safety and trade, is scheduled to be hosted by WTO in Geneva (23-24 April). The two meetings are expected to galvanize support and lead to actions in the key areas that are strategic for the future of food safety.

Food contaminated with bacteria, viruses, parasites, toxins or chemicals causes more than 600 million people to fall ill and 420 000 to die worldwide every year. Illness linked to unsafe food overloads healthcare systems and damages economies, trade and tourism. The impact of unsafe food costs low- and middle-income economies around $95 billion in lost productivity each year. Because of these threats, food safety must be a paramount goal at every stage of the food chain, from production to harvest, processing, storage, distribution, preparation and consumption, conference participants stressed.

"The partnership between the African Union and the United Nations has been longstanding and strategic," said African Union Commission chairperson Moussa Faki Mahamat. "This food safety conference is a demonstration of this partnership. Without safe foods, it is not possible to achieve

food security," he said.

"There is no food security without food safety," agreed FAO Director-General José Graziano da Silva during his remarks. "This conference is a great opportunity for the international community to strengthen political commitments and engage in key actions. Safeguarding our food is a shared responsibility. We must all play our part. We must work together to scale up food safety in national and international political agendas," he said.

"Food should be a source of nourishment and enjoyment, not a cause of disease or death," said Dr Tedros Adhanom Ghebreyesus, Director-General of the World Health Organization. "Unsafe food is responsible for hundreds of thousands of deaths every year, but has not received the political attention it deserves. Ensuring people have access to safe food takes sustained investment in stronger regulations, laboratories, surveillance and monitoring. In our globalized world, food safety is everyone's issue."

"Food safety is a central element of public health and will be crucial in achieving the 2030 Sustainable Development Goals," WTO Director-General Roberto Azevedo said. "Trade is an important force to lift people out of poverty… when we reconvene in Geneva in April we will consider these issues in more depth," he added.

Around 130 countries are participating in the two-day conference, including ministers of agriculture, health, and trade. Leading scientific experts, partner agencies and representatives of consumers, food producers, civil society organizations and the private sector are also taking part.

The aim of the conference is to identify key actions that will ensure the availability of, and access to, safe food now and in the future. This will require a strengthened commitment at the highest political level to scale up food safety in the 2030 Agenda for Sustainable Development.

## | Changing food systems

Technological advances, digitalization, novel foods and processing methods provide a wealth of opportunities to simultaneously enhance food safety, and improve nutrition, livelihoods and trade. At the same time, climate change and the globalization of food production, coupled with a growing global population and increasing urbanization, pose new challenges to food safety.  Food systems are becoming even more complex and interlinked, blurring lines of regulatory responsibility.  Solutions to these potential problems require intersectoral and concerted international action.

## | Strengthened collaboration

A central theme of the conference is that food safety systems need to keep pace with the way food is produced and consumed.  This requires a sustained investment and coordinated, multi-sectoral approaches for regulatory legislation, suitable laboratory capacities, and adequate disease surveillance and food monitoring programmes, all of which need to be supported by information technologies, shared information, training and education.

## IMPORTANCE TO TRAVEL & TOURISM

This is one area in which Travel & Tourism is making a significant contribution. F&B managers are responsible for ensuring the highest quality and standards of food products in their respective outlets. No one wants to fall victim to a food poisoning attack. The growing shift towards pesticide- and fertiliser-frvvee organic products is also gathering steam.

# 4 QUALITY EDUCATION

# SDG 4:

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## 2019 Marks Year of Indigenous Languages and Knowledge

*Mama Matilde of Ecuador's Waranka ethnic group is a seer, a cleanser of souls, a dancer, a clown, and a healer, just as her ancestors have been for centuries. She is pictured here with photographer Karen Miranda Rivadeneira*

**4 QUALITY EDUCATION**

# SDG 4: 2019 Marks Year of Indigenous Languages and Knowledge

*By Jasmina Šopova, Editor-in-chief, Courier magazine, UNESCO*

## "When you drink water, think of the source" (Chinese proverb)

Most indigenous languages are in danger, even though they are the main conveyors of knowledge that provide original solutions to contemporary challenges. "The major influence on the sorry state of their languages is the fact that indigenous peoples are threatened themselves," says Minnie Degawan (Igorot, Philippines) in her introductory article. "In the Philippines, the government has launched the use of mother tongues in schools, but no resources are available in terms of teachers and learning materials to allow for indigenous children to be taught in their mother tongues," she explains.

It is a similar situation on Easter Island, where

Rapa Nui is "being swallowed up at a dizzying speed by Spanish, with significant negative consequences on the community's values," according to the educator María Virginia Haoa (Rapa Nui, Chile), who sees education as a means of guaranteeing the survival of her language.

This survival also depends on the media, say Avexnim Cojti (K'iche', Guatemala) and Agnes Portalewska (Poland), two experts from Cultural Survival, who tell us why indigenous media is very often forced to operate illegally, in spite of favourable national legislation.

In Africa, it is precisely national legislation that is lacking, while at the regional level countries formally commit themselves to defending the rights of indigenous peoples, according to indigenous women's rights activist Hindou Oumarou Ibrahim (Mbororo, Chad).

In Canada, First Nations are the most vulnerable

of the marginalized, says filmmaker Manon Barbeau, who is the driving force behind more than a thousand documentaries made by members of indigenous communities. Her project aims to restore their self-confidence and make them more visible on the international scene. Siku, another project developed by the Inuit of Canada, demonstrates the ability of these peoples to combine the oldest knowledge with the most modern technologies.

The designation of 2019 as the International Year of Indigenous Languages (IY2019) gives us the opportunity to review issues related to indigenous languages and knowledge in other latitudes as well: among Fijians in the Pacific, the Dong in China, the Sámi in Swedish Lapland, the Bahima in Uganda, the Maori in New Zealand and the Mixtec in Mexico.

## | Read more

In the magazine's sections, we take a detour to Bangladesh where life resumes after each flood. We also examine the water-related hazards that affect the vast majority of the world's population.

Two names from world literature are in the spotlight : Wystan Hugh Auden, with his previously unpublished reflections on freedom and art and the Armenian poet Hovhannes Toumanyan, whose 150th birth anniversary is being celebrated this year.

Our guest is the contemporary Sudanese thinker, Abdullahi Ahmed An-Na'im, who shares his ideas on human rights from an intercultural perspective.

Finally, by offering you the opportunity to learn more about the Nowruz celebrations, the New Year of the Persian calendar, the Courier's entire team wishes you an excellent 2019!

## IMPORTANCE TO TRAVEL & TOURISM

Well worth celebrating with great gusto this year. And no shortage of opportunities to hold all kinds of literary and cultural festivals to advance the cause. Many indigenous languages are also on the "endangered species" list. Saving them is just as important as saving endangered wildlife, flora and fauna.

# 4 QUALITY EDUCATION

# SDG 4:

## Multilingual initiative changing students' lives in South Thailand

# MOTHER TONGUE-BASED EDUCATION

**4 QUALITY EDUCATION**

# SDG 4: Multilingual initiative changing students' lives in South Thailand

*By Risa Shibata, an intern for the Inclusive Quality Education section at UNESCO Bangkok, and Kirk Person, a director for External Affairs at SIL International*

Bangkok, Feb 22, 2019 (UNESCO Asia-Pacific) - Think back to your very first day of school. Now imagine what it would have been like if you could not understand the language that your teachers were speaking. What would that be like? And how would you feel if you finished sixth grade, but still could not read or write?

That is the reality for an estimated 240 million children who do not have access to education in their first or home language. Many are in school, but not learning anything at all.

The United Nations' International Mother Language Day on 21 February exists to draw attention to the importance of language in every part of our lives. While globalization has led to a rise in the use of English as a medium of instruction, we should not neglect the large body of global research showing that a child's success across all academic domains is closely tied to having a strong foundation in the language they speak best.

Thailand is home to more than 70 languages. Some may soon become extinct, while others are spoken by hundreds of thousands of people, often living in border regions of the North and Deep South. The 2016 Multiple Indicator Cluster Survey conducted by the National Statistical Office with

support from UNICEF found that one-third of youth in non-Thai speaking households were illiterate in Thai, despite spending many years in Thai schools. Clearly, Thai language "submersion" at school has not been effective for these children.

Yet there is hope. Since 2006, the Ministry of Education, the Thailand Research Fund, Mahidol University, UNICEF, Yala Rajabhat University, and local schools and communities have cooperated in the Patani Malay-Thai Multilingual Education Programme (PMT-MLE) in Thailand's Deep South. Children learn to read and write in their home language before bridging to the national language through a specially-designed Thai language acquisition curriculum.

The results in the region, which is also affected by a long-running Malay insurgency, have been stunning. Even though pupils spend fewer school hours learning Thai, PMT-MLE students speak, read and write Thai much better than their Malay-speaking peers in Thai-only schools. Their grade 6 O-Net scores are higher, and their families are pleased with their progress. As one mother said, "My first son is in grade 5. There are so many Thai words he cannot read. My second son is in grade 1 in a PMT-MLE class, and he reads fluently. Now he's teaching his older brother to read."

Dr Virasakdi Chongsuvivatwong, leader of the Thailand Research Fund team that conducted evaluations of PMT-MLE in 2010 and 2015, reached similar conclusions. "As we began our work, and I saw the positive impact of PMT-MLE, I realized that I could not be just a neutral evaluator," he said. "I had to support the programme, and encourage the government to support it. As a medical doctor, I believe that PMT-MLE is the medicine to cure the disease of illiteracy."

For this innovative project, Mahidol University received the UNESCO King Sejong Literacy Prize, while Yala Rajabaht University received UNESCO's Wenhui Award for the Professional Development of Teachers (honorable commendation) for developing a multilingual education teacher training track and internships programme – the first of its kind in Asia. PMT-MLE is the only project in UNESCO's 72-year history to be recognized with both of these prestigious prizes.

Similar mother language-based projects in Thailand's north, run by the Foundation for Applied Linguistics in cooperation with the Pestalozzi Children's Foundation, the Child Dream Foundation, and local education offices have helped Hmong, Karen, Mon and Lahu children. Provincial education officials in Chiang Mai aim to expand these programmes as part of a seven-year plan to better meet the needs of its unique student populations.

Thailand's Asean neighbors are also recognizing the benefits of mother tongue-based education. As a result of Republic Act 10533 in 2013, the Philippines now offers early primary education in 100 minority languages. Similarly, Cambodia's Multilingual Education National Action Plan in 2015 committed the government to develop the mother tongue approach in 19 minority languages.

Researchers in the United States found that migrant children's school performance benefits from a mother tongue component; in fact, migrant children placed in English-only classrooms were found to have the worst-performance overall. Today, schools in Fort Worth in the US as well as Melbourne, Australia, offer mother tongue instruction to the children of ethnic Karen refugees from Myanmar.

Although many minority languages are endangered, mother tongue-based multilingual education has proven to be an effective means of respecting both the children's first or home language and the national language. Moreover, if minority populations achieve higher rates of functional literacy in their mother tongue as well as the national language, they are more likely to gain wider access to skills, knowledge and practices of the country. This cultural capital strengthens material success in education and leads to greater stability and social cohesion.

Thailand should be proud of these globally-recognized success stories. The Ministry of Education and the government's new Equitable Education Fund should ensure that these innovations become integrated into national plans and budgets. Indeed, the Royal Society of Thailand's draft national language policy and the Office of the Basic Education Commission's policy for fiscal year 2019

represent good steps in that direction.

The United Nations has declared 2019 the 'International Year of Indigenous Languages' with the tagline 'Indigenous languages matter for development, peace building and reconciliation'. On this International Mother Language Day, UNESCO calls on governments, community organizations and individuals to remember the great value of all languages.

## IMPORTANCE TO TRAVEL & TOURISM

Tangible proof indeed of how promoting languages enhances cultural understanding and the value of education. May be time for Travel & Tourism to add "Linguistic Tourism" to its roster of marketing themes.

# 8 DECENT WORK AND ECONOMIC GROWTH

# SDG 8:

Asia-Pacific nations urged to step up investment in social protection

## SDG 8: Asia-Pacific nations urged to step up investment in social protection

GENEVA (ILO News) 18 February 2019 – Since its founding in 1919, ILO international labour standards have improved the working lives of millions of people. From eliminating forced and child labour to ensuring the rights of seafarers and promoting gender equality, the 189 Conventions and 205 Recommendations adopted by member States during the last 100 years have formed the bedrock of the ILO and its mandate.

However, many issues in the world of work remain, and with new challenges being created by globalization and cross border activities, international labour standards are needed more than ever. Therefore, to mark its Centenary year, the ILO is urging its 187 member States to ratify at least one additional ILO Convention or Protocol in 2019.

"We hope that as many member States as possible will step up to the plate and ratify this year. Ratifications and the full application of ILO global labour standards will ultimately lift up millions of workers whose livelihoods today, like 100 years ago, are facing substantial challenges. The implementation of international labour standards ensures that no one will be left behind in the world of work," said Corinne Vargha, Director of the International Labour Standards

Department.

To gauge progress towards this goal the ILO will track all 2019 ratifications in real time on a new dashboard. More than 30 member States have already made a head start, having signed Conventions or Protocols in 2019 or ratified instruments that will enter into force this year.

"For one hundred years, the ILO has been setting and supervising the standards that breathe life into social justice, decent work and fair globalization. Setting such standards today is more relevant than ever," said Tim De Meyer, Senior Advisor on Standards Policy. "Our 'One for All' campaign to step up the number of ratifications this year should ultimately help people who may not yet have fair treatment at work, income security or the right to organize."

ILO Conventions are negotiated by government, employers' and workers' representatives. They fall into three categories:

- Fundamental Conventions, which cover child labour, forced labour, discrimination at work, the right to organize and collective bargaining;
- Governance Conventions, which strengthen social dialogue, labour inspection and

policies for full, productive and freely chosen employment;

- Technical Conventions, which cover a range of issues including specific categories of workers, minimum wages, pensions, occupational safety and health.

In the last 100 years the implementation of international labour standards has led to positive changes on a wide range of issues. For instance, Conventions on child labour contributed to the reduction in child labour from 246 million children in 2000 to 152 million in 2016. Conventions on working time have placed limits on working hours and the working week. The Maritime Labour Convention - which currently covers more than 90 per cent of the world's gross shipping tonnage – has improved working conditions for many seafarers.

To find out more about ILO Conventions, rights at work and their impact, click here: Interactive website

## IMPORTANCE TO TRAVEL & TOURISM

Working conditions in Travel & tourism are far better than other economic sectors, but they could always be better. It will go a long way towards enhancing the appeal of Travel & Tourism as a "First Choice" sector for the growing legions of emerging job-seekers.

**8 DECENT WORK AND ECONOMIC GROWTH**

# SDG 8:

## Why we need a reinvigorated social contract

# SDG 8: Why we need a reinvigorated social contract

*By Guy Ryder, Director General, ILO*

Geneva, ILO media centre, 15 February 2019 - People are asking fundamental questions about the legitimacy and relevance of institutions and systems. The cause, I believe, is a lack of social justice. There is a sense that the rules of the game have become skewed against ordinary people and the formula of education and dedication no longer brings just rewards.

Data shows us that these fears are not just subjective. Economic benefits and the labour market are out of sync and for many wage growth has not kept pace with economic or productivity improvements. Rewards are not trickling down as they should.

And many people don't have regular wages at all. More than two billion people work in the informal economy, where contracts, benefits and rights are compromised. We might associate informal work with developing countries but it is now an everyday part of some of our richest societies.  The rise of the 'gig' economy, facilitated by new technology, could lead to even more informal work.

This is not the kind of world I want, in the present let alone the future. We need to pro-actively re-engineer our systems and mould these trends to create a future of work that is stable and equitable. The ILO is already deeply engaged in these issues. Two years ago I instigated an independent, high-level Global Commission on the Future of Work. Its report is already generating vigorous global debate, which will culminate in a high-level session at the Centenary International Labour Conference, in Geneva in June.

From a personal perspective, I would like to highlight a few points. Currently, 55 per cent of the global population – four billion people – have no social protection at all. Without a social protection floor they are more likely to fall into working poverty and less likely to invest in- education for their children, retraining for themselves, starting businesses. The whole economy will suffer as a result.

We are not powerless against this situation. Some of the same technology that the 'gig' economy uses to allocate and record work can also be used for social benefits. Labour laws can be updated to cover new kinds of work. Cross-border co-operation on tax and regulation can ensure bricks-and-mortar employers are not unfairly undercut by their virtual competitors.

We can embrace the opportunities of a greener future. The ILO estimates that, with a supported, just, transition, 18 million decent jobs could be created by a shift to more sustainable economic practices. We can prepare for demographic changes by making it easier for those who are marginalized or restricted – women, youth, the elderly and differently abled, minority and indigenous groups – to participate in the workforce fully and equally.

A pre-requisite for all this must be real social dialogue. If governments, workers and employers engage this creates the foundations for a renewed social contract that addresses current concerns and paves

the way for a future of work that is more equitable.

*Note: This original version of the blog was first published for the FU.SE conference on the future of work, 13-14 February, Milan, Italy*

## IMPORTANCE TO TRAVEL & TOURISM

Everyone needs a job. Yet, the history of economic development shows that it has been driven by where investors can find "low labour costs." There seems to be no shortage of money available for technological upgrades and security apparatus. Improving working conditions for the people seems to be a bit low on the pecking order. A contradiction in terms worth pondering further.
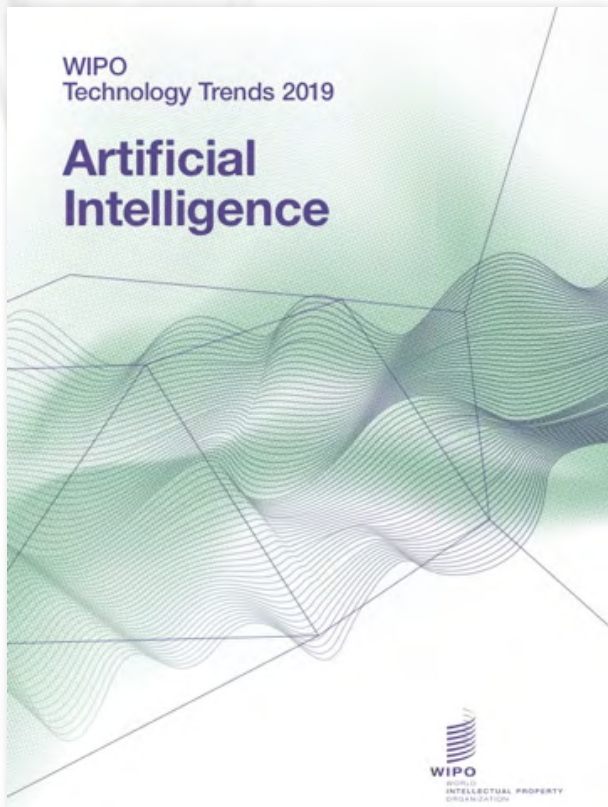
**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE

# SDG 9:

**Tech Trends: What's the Future for Artificial Intelligence?**

# SDG 9: Tech Trends: What's the Future for Artificial Intelligence?



WIPO Technology Trends 2019

**Artificial Intelligence**

WIPO WORLD INTELLECTUAL PROPERTY ORGANIZATION

February 18, 2019 - Is artificial intelligence (AI) the new Internet – a fast-moving innovation that will completely reshape our world before becoming so common it no longer warrants comment? That's the daring prognostication made by one member of a discussion panel led by WIPO Director General Francis Gurry with AI experts from the private sector and academia.

The discussion came during the launch of the first edition in WIPO's new Technology Trends research series, which documented a massive recent surge in AI-based inventions led by US-based companies and public research organizations in China.

Joining Mr. Gurry were representatives from companies and universities that are leading on artificial intelligence: New York University (NYU) School of Medicine; The Laboratory of Intelligent Systems, Ecole Polytechnique Fédérale de

Lausanne (EPFL); Siemens Corp.; the Institutes of Sciences and Development, Chinese Academy of Sciences (CAS); and, IBM.



*Video: The panel discussion took place on January 31, 2019 at WIPO Headquarters in Geneva (Watch on YouTube).*

## | Among the study's key findings

- Since AI emerged in the 1950s, innovators and researchers have filed applications for nearly 340,000 AI-related inventions through 20161 and published over 1.6 million scientific publications.
- AI-related patenting is growing rapidly, with more than half of the identified inventions published since 2013.
- Companies represent 26 out of the top 30 AI patent applicants, with universities or public research organizations accounting for the remaining four.
- United States-based International Business Machines Corp. (IBM) had the largest portfolio of AI patent applications with 8,290 inventions at the end of 2016, followed by U.S.-based Microsoft Corp. with 5,930. Rounding out the top five applicants are: Japan-based Toshiba Corp. (5,223), Samsung Group, of Republic of Korea (5,102) and NEC Group, of Japan (4,406).
- Chinese organizations account for 3 of the 4 academic players featuring in the top 30

patent applicants, with the Chinese Academy of Sciences ranking 17th with over 2,500 patent families. Among academic players, Chinese organizations account for 17 of the top 20 academic players in AI patenting as well as 10 of the top 20 in AI-related scientific publications.

## IMPORTANCE TO TRAVEL & TOURISM

Artificial Intelligence? The term itself sounds like an oxymoron. As usual, it is driven by its creators with big publicity megaphones and marketing budgets. Perhaps a little more Genuine Intelligence may help.

**12 RESPONSIBLE CONSUMPTION AND PRODUCTION**

# SDG 12:

## Sustainable aviation takes significant step forward at ICAO

*Global measures to address aviation's environmental impact were agreed at a meeting of experts of ICAO's Committee on Aviation Environmental Protection (CAEP).*

# SDG 12: Sustainable aviation takes significant step forward at ICAO

Montréal, 15 February 2019, ICAO News release – Global measures to address aviation's environmental impact were agreed at a meeting of the two hundred and fifty experts of ICAO's Committee on Aviation Environmental Protection (CAEP), which concluded today.

The meeting was opened by Dr. Olumuyiwa Benard Aliu, President of the Council of ICAO, recognizing that "In the 35 years since the CAEP was established, the scope of work and the technical areas which it covers have widened. Yet, despite the monumental challenges set before it, the CAEP remains a tremendous example of international cooperation."

The main outcomes of the meeting are as follows:

## | Aircraft Engine Standard

A new stringency level that would limit the emissions of non-volatile Particulate Matter (nvPM) from aircraft engines was agreed. The ICAO standard is expected to drive technologies to address non-volatile particulate matter, which in the long run will minimize their potential environmental and health impacts.

With this new standard, ICAO has completed all main environmental standards for the certification of aircraft and engines, namely for noise, local air quality (NOx, HC, CO, nvPM) and climate change (CO2), making the aviation industry the only sector with environmental mandatory certification requirements at the global level for the operation of its equipment. Once applicable, all new aircraft will need to be certified to those ICAO standards before operating.

The meeting also delivered new technology goals for the sector, including improvements of aircraft noise up to 15.5 dB below Chapter 14 limits for single-aisle aircraft by 2027, NOx emission by 54 per cent relative to the latest ICAO NOx SARPs and fuel efficiency up to 1.3 per cent per annum can be expected for the new aircraft entering into production.

# Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

Agreement has been achieved on the means to calculate and claim the benefits accrued from the use of sustainable aviation fuels within the context of CORSIA. This is significant in terms of reducing airlines' offsetting requirements.

The agreement included the default values and the methodologies for calculating actual values needed to calculate the life-cycle $CO_2$ emissions reduction benefits of different feedstocks. CAEP has also agreed on the requirements for Sustainability Certification Schemes (SCS) and a process to evaluate and recommend a list of eligible SCS, which will certify fuels against the CORSIA sustainability criteria. This package of agreements provides the clarity needed for the energy sector to embark in the production of sustainable fuels for aviation, and is an important step towards CORSIA implementation.

In addition, CAEP has delivered a recommendation for the rules and procedure for the ICAO Council's Technical Advisory Body (TAB), which will evaluate the eligibility of emissions units for use in CORSIA. Another agreement was the technical updates of Environmental Technical Manual on CORSIA, which clarifies the recommended actions by States and airlines for monitoring, reporting and verification of $CO_2$ emissions under CORSIA.

## | Environmental Trends and Outlook

The meeting agreed on the updated ICAO environmental trends for noise, local air quality (NOx and nvPM) and global climate ($CO_2$), which will be the basis for the considerations of ICAO environmental policies at the next ICAO Assembly, in September 2019.

Important publications were also developed as part of ICAO's eco-airport toolkit collection in the areas of renewable energy, waste management, environmental management, and eco-design of airport building.

Regarding climate change adaptation, a Synthesis Report was approved for publication, providing important information on the climate risk impacts and resilient options for the sector.

Two other important reports were agreed: one on the state of aircraft end-of-life and recycling; and the other on performance-based navigation and community engagement.

The meeting further agreed with the results of the assessment of the positive effects of operational improvements. The assessment showed that the implementation of these measures, as per ICAO global plans, savings of fuel between of 167 to 307 kg per flight can be achieved by 2025. This corresponds respectively to a reduction of 26.2 to 48.2 Mt of $CO_2$. The meeting agreed on the publication of the white paper "State of the Science 2019: Aviation Noise Impacts Workshop".

CAEP also considered the progress that has been achieved towards supersonic transport operations, and agreed that an exploratory study should be undertaken.

CAEP will also assess how to certify other new technologies such as hybrid and electric aircraft as part of its future work.

CAEP is a technical body of the ICAO Council, and all the technical recommendations agreed by CAEP above will be considered by the Council for final approval.

For more information: ICAO and Environmental Protection

# IMPORTANCE TO TRAVEL & TOURISM

The aviation sector has been way ahead of the game. Airlines were the first to produce annual Environmental Audit reports, long before hotels and destinations. While cutting emissions has certainly been the order of the day, it is negated by the sheer volume of new aircraft plying the skies. That may change in future, but the transition period is going to be long and drawn out.

# 14 LIFE BELOW WATER

# SDG 14:

## Why aren't fish coming back?

*With tight fishing regulations, one would imagine the fish coming back. But this has not happened. Photo: UNDP India / Dhiraj Singh*

# SDG 14: Why aren't fish coming back?

### By Mark Kurlansky

Source: UN Development Programme, Feb 15 - Sustainable is an ever more complicated word. In the mid-1960s, when I was a kid working on commercial fishing boats in New England, the fishermen were constantly talking about the problem of over fishing. They were among the first to raise the issue. But they were primarily complaining about foreigners in their waters, especially Russians and Japanese. After 200-mile exclusions zones were declared by most countries in the 1970s, the problem of overfishing foreigners was solved. Then came a worse problem of overfishing local fishermen.

To be clear, the problem of overfishing is not a failure of fishermen, it is a failure of government. Fishermen fish and governments regulate. Management has been so faulty that fishermen have been talking about regulating themselves, which is an interesting possibility, but oversight would still be needed.

In 1994 when the most historically important fishery in the world collapsed, the northern cod stock on the Canadian Grand Banks, government started taking fishery management seriously, at least in the northern hemisphere. Exploitation of southern countries and the devastation of those previously only slightly fished waters became a major classically colonialist problem.

But in the north, particularly in North America and Europe, fishing became tightly regulated. One would imagine the fish coming back. But this has not happened. It's turned out to be far more complicated than originally thought. To simply order fisherman to take fewer fish became a wasteful policy forcing fishermen to throw

away their catch. Then came reduced efforts, limiting the number of days at sea, the size of nets, the power of engines. Closing down certain grounds for a number of years. Sometimes using a combination of these proved most successful. There have been a few victories and a few improvements. Cod, we are told, has become once again abundant on the banks in the North Sea. But when the actual numbers are looked at,

while they have increased, they are still at levels once considered disastrous, nowhere near the levels once considered natural. It is a problem that biologists call 'shifting baselines'. We become accustomed to such low numbers that improvements that are far below what was once considered healthy are hailed as success. We are getting to a point where few people remember what it once was, and so the goals become



*Fishermen fish and governments regulate.
Photo: UNDP Albania/Claudia Amico*

obscured.

But why haven't tightly regulated fish stocks returned to their historic levels? One of the most dramatic examples is Atlantic salmon, of which there are only about 1.5 million left in the world. The commercial fishing of Atlantic salmon has been brought to a nearly complete halt. And yet the population continues to dwindle. Ample smolt populations go to sea and yet the percentage of returns become less every year.

We have arrived at a point where a fishery that could be saved simply by good management would be extremely fortunate. The abused ocean is having difficulty sustaining life.

First there is pollution including the hydrocarbons leaked by an under-regulated oil industry. The ocean abounds in heavy metals and PCBs many of which accumulate in arctic regions vital for the food fish depend on. More than 12 million tons of plastics enter the ocean every year and will not decompose for centuries. They do break down

into tiny pieces that are consumed by fish.

The number one problem keeping fisheries from attaining sustainable healthy populations is climate change. Carbon dioxide, the leading cause of climate change, is absorbed by water. About a third of the carbon dioxide in the air is absorbed by the sea, where it produces a chemical reaction that makes the water more acidic. Specifically it causes an increase in hydrogen ions and a decrease in carbonate. The lack of carbonate ions diminishes the ability for growth in shellfish, coral, and certain plankton. This is important food for fish that the ocean is no longer producing. The lack of carbonate also diminishes the ability of fish to detect predators, which upsets the balance of species.

This acidification is taking place not only in all the world's oceans, but also in rivers and their estuaries. This means that anadromous fish, that reproduce and grow in fresh water but live at sea—such as salmon, striped bass, sturgeon, shad, river herring, and sea lamprey—are all in
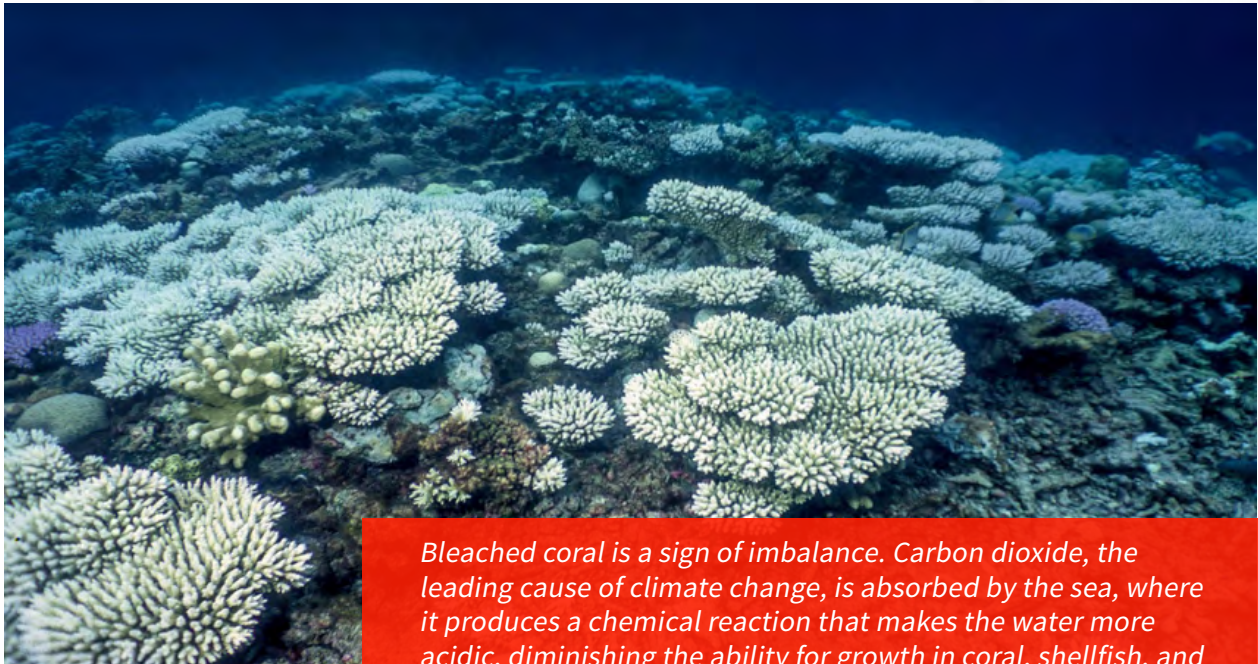
*Bleached coral is a sign of imbalance. Carbon dioxide, the leading cause of climate change, is absorbed by the sea, where it produces a chemical reaction that makes the water more acidic, diminishing the ability for growth in coral, shellfish, and certain plankton. Photo: Mark Spalding*

trouble.

Carbon dioxide is also causing a warming of air and water. This is a problem for a fish such as salmon that require cold water. But this warming is also causing ice to melt and making sea water less salty. Fish such as salmon and cod that take cues from temperature and salinity for the various stages of their life cycle including when to spawn are becoming confused. Climate change is rapidly changing the North Atlantic. It is diminishing capelin and zooplankton, vital food for larger species such as cod and salmon. Such larger species are lacking protein and sometimes do not have the strength to survive.

While we like to focus on the excesses of commercial fishermen, so many things that we do from driving cars to drinking from plastic bottles are endangering fish. We have many tasks besides fishery management to embrace if we are to have sustainable fisheries. And in the interconnected web of life, sustainable fisheries are imperative for the survival of the planet.

*Discover more about what threatens* life below water*.*

## IMPORTANCE TO TRAVEL & TOURISM

Does anyone know what percentage of the total global fish catch lands up on the tables of tourists? Restaurants worldwide brag about their "fresh seafood". What are they doing to prevent its environmental downside?

# 15 LIFE ON LAND

# SDG 15:

## Geoscience projects that could alleviate climate change, risks of natural disasters

*© Geology for Global Development, 2014*

# SDG 15: Geoscience projects that could alleviate climate change, risks of natural disasters

Paris, 21 February 2019, UNESCO media release - The geological record holds key answers to current global challenges such as climate change, reducing risks from natural hazards or better understanding our natural resources. Each year, the Council of the International Geoscience Programme (IGCP) selects research projects of societal relevance that will be supported by the programme.

By making connections between events throughout the Earth's history, the research projects supported by IGCP aim to address the challenges we must overcome to preserve our environment and develop sustainably. Each project has an average lifespan of five years. Progress is assessed annually through a rigorous peer review process conducted by the IGCP Council of the evaluation reports submitted my members of the Scientific Board during the first half of February.

This year's IGCP Council Meeting took place on 18-21 February 2019 at UNESCO Headquarters in Paris, France. The Council reviewed 21 new project proposals and assessed the progress of the 27 ongoing IGCP projects. Of these, seven new projects were approved for 2019, 18 will continue to receive funding, and four were extended for their fifth year without funding. There are now 29 active IGCP projects.

The IGCP, a joint initiative of UNESCO and the International Union of Geological Sciences (IUGS), has supported over 650 projects in 150 countries since its creation in 1972, to mobilize global cooperation in the Earth Sciences in the service of society.

The following seven new IGCP projects will integrate the programme:

## | EARTH RESOURCES THEME



*IGCP 682: Mine Tailing Revalorization*

Mine tailings are the mud-like ore waste of mineral extraction from mines. Mine tailings can be highly toxic and their long-term containment is critical to the safety of surrounding communities, which may be at risk of landslides caused by residue, toxic dust and chemical leaching into the groundwater. The reuse and revalorization of tailings not only provides a source of raw materials, but also reduces their potential impact on the environment and public health. The reuse and revalorization of mine tailings should, thus, be considered a priority "green" alternative to current waste treatment methods. In order to lay the groundwork for this "green alternative", this international project aims to improve understanding of the geological processes behind metals' mobility, improve bioleaching efficiency and recover Raw Earth Elements (REE) and other Critical Raw Materials (CRM) from mine tailings.

## | GLOBAL CHANGE THEME

### IGCP 679: Cretaceous Earth Dynamics and Climate in Asia

Understanding the effects of elevated carbon dioxide ($CO_2$) in the atmosphere is vital to mitigating the negative impact of today's rapidly changing climate. The Cretaceous was the most recent, warmest period in the Phanerozoic Era, characterized by more elevated atmospheric $CO_2$ levels and significantly higher global sea levels than today. This project examines both the oceanic and terrestrial climate of this Cretaceous 'Greenhouse' Earth, in order to understand how these environmental conditions affected the evolutionary responses of biodiversity during this period. The project will play an important role in promoting geoscience communication among the participating countries, most of which are in Asia.

## IGCP 681: History of Toxic Phytoplankton in Patagonia

This project examines the effect of hydroclimatic variations on microalgae, a type of phytoplankton which are the base of the food web in the ocean and are responsible for converting carbon dioxide to oxygen via photosynthesis. When these colonies of algae grow out of control and cause toxic or harmful effects to human health, wildlife, fisheries and aquaculture production, we speak of Harmful Algal Blooms (HABs) In order to understand their causes, predict their occurrences and mitigate their effects, this project is conducting research along the Patagonian coast, which is known for its pristine ecosystems that constitute important fishing sites for local communities. In 2016, nearly 12% of Chilean salmon production was killed by microalgae (Pseudochattonella cf. verruculosa) in Western Patagonia. The study will track hydroclimatic variabilities in the sediments of these ecosystems, such as the El Niño Southern Oscillation (ENSO) and its influence on HABs over the past 1,000 years, in order to assess the feasibility of aquaculture for the region.

## IGCP 689: A Better Management of the Ali-Sabieh Aquifer

Securing access to potable freshwater sources is critical in the dry tropical climate of the Republic of Djibouti. In this project, researchers from Canada, Comoros and Djibouti will focus on charaterizing the main geochemical processes that explain the water geochemistry of the volcanic aquifer system. Sulphate and nitrate concentrations of the aquifer groundwater are well above the maximum permissible values prescribed by the World Health Organization and therefore the research aims to understand the aquifers' geochemical evolution in order to support the drinking water sources for Djibouti's major cities.





## IGCP 684: The Water-Energy-Food and Groundwater Sustainability Nexus (WEF-GW Nexus)

Water, energy and food are the most critically important resources for society, and their security is central to meeting Sustainable Development Goals (SDGs). The demand for these resources is expected to increase in future decades due to climate change, population growth and socioeconomic forces. Effective management of water resources, with consideration to water's role in food and energy production (a relationship also known as the

Water, Energy and Food Nexus), is vital for areas where water resources are limited or polluted. The overall aim of this project is to leverage concepts from the Water-Energy-Food (WEF) Nexus and guide research, networking, and training activities that help to advance knowledge transfer and practical tools to support management decisions and policy choices toward sustainable groundwater resources in both developed and developing countries.Djibouti's major cities.

## | SPECIAL TOPICS FOR 2019



### IGCP 685: Geology for Sustainable Development

Geosciences knowledge, experience and guidance are critical for addressing many of society's most acute resource needs and environmental challenges. The Geology for Sustainable Development project will integrate the experience of geoscience practitioners across a range of fields and explore how geoscience and geoscientists are directly confronting and overcoming societal challenges. The project brings together an international, interdisciplinary network of researchers, industry professionals and partners from associations of geoscientists, including scientists from developing countries.

### IGCP 692: Geoheritage for Geohazard Resilience

The term 'geoheritage' refers to the knowledge, communication and protection of the Earth's value to society. Geoheritage sites are areas with unique geological, scientific, aesthetic, cultural or educational value. This geoheritage project focuses on helping people understand their landscape and exposure to various natural hazards by identifying the geological elements, such as river courses, faults, volcanic rocks, etc., and placing them in a wider societal context. This project aims to support a local community's ability to react to and absorb changes from one or multiple hazards and develop a grassroots type of resilience.



## IMPORTANCE TO TRAVEL & TOURISM

These are all the core assets that travel & tourism sells for a living. In crude real estate terms, they would be described as "asset value." Redefining and broadening this term beyond just financial terms may help enhance the sustainability agenda. Adopting the principles of geoscience and geoheritage may be the way to go.

# SDG 15:

## IUCN study identifies tree species for climate-resilient reforestation
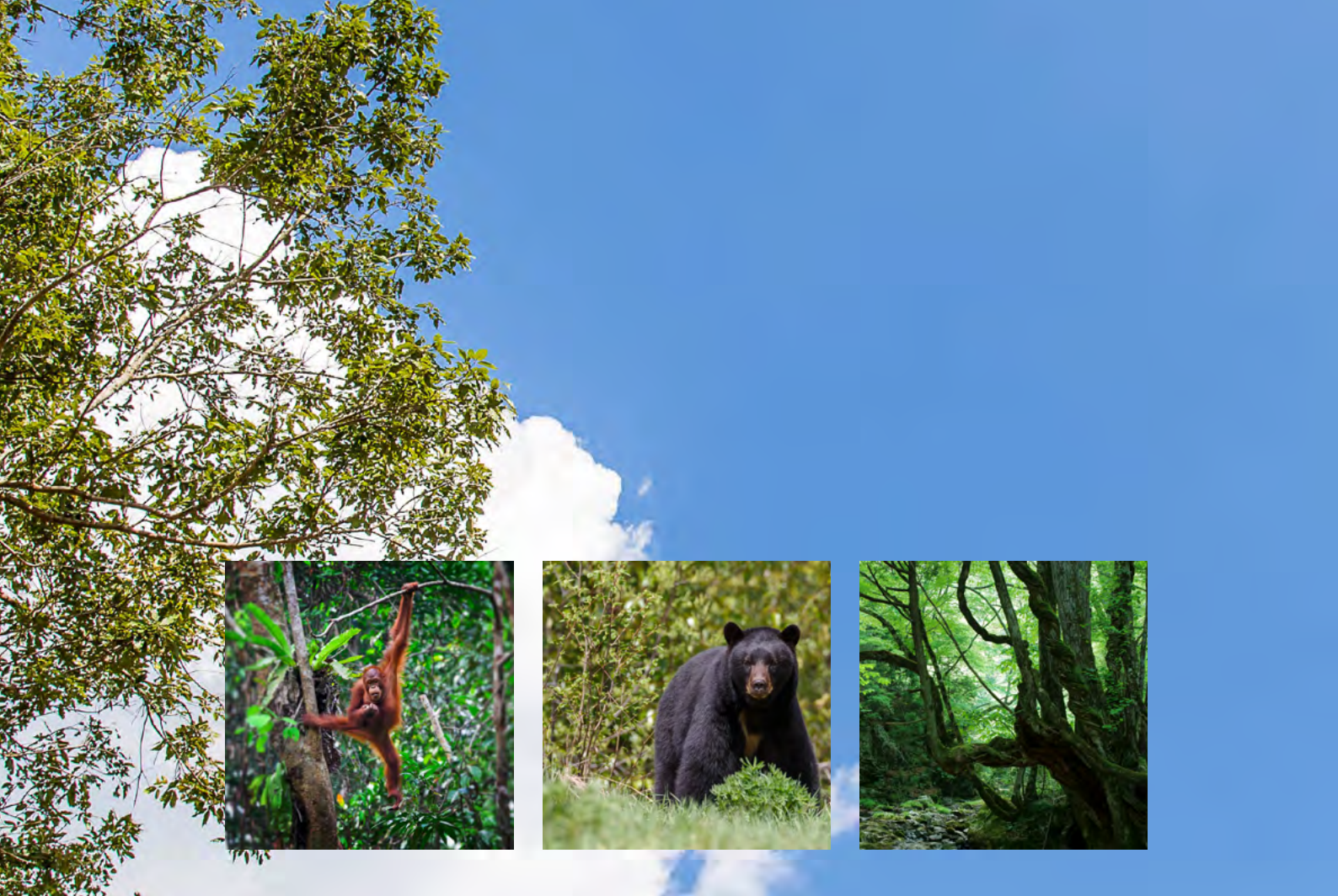
## SDG 15: IUCN study identifies tree species for climate-resilient reforestation

Recognising that saplings planted today face dramatic climate changes over their 100+ year life-spans, the study, Reforesting for the climate of tomorrow, analysed the traits of around 250 species of trees and other plants native to the rainforest of Kutai National Park. It identified species resilient to the fires and drought conditions that are expected to increase as the climate warms. The authors also identified tree species that provide food and habitat for threatened East Bornean orangutans, for which the park provides a key habitat.

"Increasing drought and fires caused by a warming climate are important emerging threats to species-rich areas such as Kutai National Park," said Alan Lee, lead author of the study and member of the IUCN SSC Climate Change Specialist Group. "Selecting climate-resilient tree species can help protect the park and the orangutan populations it shelters from the impacts of climate change. We hope that the information in this study is taken up by all those working to restore this unique area of rainforest." Climate change-resilient species included those with low sensitivity to changes, high capacity to adapt to them, or both. Two tree species that were singled out for their resilience to fire – a native palm, Borassodendron borneense, and the hardwood tree Eusideroxylon zwageri, known locally as Bendang and Ulin – should be planted in buffer zones around fire-prone areas, the authors recommended.

"This study provides valuable practical guidance as to how we can make a unique Bornean rainforest more climate-resilient. Of course, to halt the catastrophic impacts of climate change on nature we urgently need ambitious emissions cuts. But with climate change already impacting

many species in alarming ways, nature needs all the help it can get in adapting to these rapid changes," said Sandeep Sengupta, IUCN's Climate Change Coordinator.

Seven plants that are likely to be climate resilient emerged as key food sources for East Bornean orangutans, and these should be planted alongside vines that the apes use for moving through the forest and trees which they prefer for nesting, such as the Ulin tree, according to the study. To minimise conflict with humans – a key threat to orangutans – the authors recommended planting these species in areas that humans are unlikely to access.

"Kutai National Park was once one of the most important lowland rainforest sites in Borneo, and its degradation is a major loss not only for Indonesia but for the world," said study co-author Douglas Sheil. "But there is a glimmer of hope in that populations of threatened East Bornean orangutans persist there and work continues to restore forest cover in the park. Selecting which species to plant is a significant contribution to restoring the health of this ecosystem. Of course, the reasons why forest cover was lost in the first place must also be addressed for reforestation efforts to succeed."

Biodiversity in Kutai National Park faces multiple threats, including population expansion into the protected area, hunting, forest clearing for agriculture, fire, and coal mining, with climate change an important emerging threat. Reforestation efforts in the park are being undertaken by local organisations, government, and PT. Indominco Mandiri, a coal mine operation on the edge of the park.

Key collaborators in this work included Anne Russon of York University (Ontario), the staff of Kutai National Park, the Indonesian Ministry of Environment and Forestry, the Yorkshire Wildlife Park and a range of dedicated conservationists and researchers from local and international organisations. Three members of the IUCN SSC Climate Change Specialist Group played leadership roles.

## | Supporting quotes

"My research team had the very telling but heart-breaking opportunity to study warming and severe drought effects on Kutai National Park first hand, via the 2015-16 El Niño drought – the most severe ever recorded. By its end, we had seen severe drops in KNP's wildlife numbers - from invertebrates to orangutans and other large mammals - and very high tree death rates in drier areas," said study co-author Anne Russon of York University, Ontario. "Almost three years later it is clear that KNP's forest and resident wildlife have recovered somewhat, but very slowly. Innovative studies like this IUCN one stand to contribute importantly to nature conservation by offering constructive methods for buffering the effects of climate change."

"This work is among the first of its kind, in that it moves away from more common approaches to identify species that are most threatened by climate change, and instead focuses on practical ways to restore ecosystems using species that will be resilient far into the future," said Jamie Carr, the IUCN SSC Climate Change Specialist Group member who conceived and co-led the work. "Moreover, it identifies practical and political challenges that will need to be overcome if such restoration work is to be successful."

"Kutai National Park faces many challenges in managing its area. Forest degradation is the biggest and the most pressing one. We give our utmost regard for all supporting organisations who made the Kutai National Park ecosystem restoration publication possible," said Nur Patria Kurniawan, Head of the Kutai National Park. "The results will guide our ecosystem restoration activities, and will be implemented not only in Kutai National Park, but also in tropical forests outside the KNP. There will be immediate follow-up action related to ecosystem restoration in KNP. Moreover, we also call for continued support from IUCN and other parties in preserving the Kutai ecosystem and protecting orangutans."

See here for the full study in English and in Indonesian.

## IMPORTANCE TO TRAVEL & TOURISM

Travel & tourism can and should play a much important role in reforestation efforts worldwide. Every year, expanding number of travel & tourism projects change land use patterns. There is no statistical record of this. Creating one may provide a good indicator of how much equivalent land the travel and tourism sector can devote to reforestation.

# 16 PEACE, JUSTICE AND STRONG INSTITUTIONS

# SDG 16:

Detecting corruption and crime in sport key to protecting its integrity

## SDG 16: Detecting corruption and crime in sport key to protecting its integrity

Vienna, 14 February 2019 (Interpol news release) - Over 40 international experts from Government, Sports Organizations, academia and the private sector gathered today at the headquarters of the United Nations Office on Drugs and Crime (UNODC) to reflect on how to develop effective mechanisms to promote reporting of unethical, illicit and illegal activities linked to sport.

During the meeting from 14 to 15 February, the experts analysed the different and significant risks of corruption and criminality which have accompanied the dramatic evolution of sports. They also made proposals aimed at developing reporting mechanisms that are tailored to the world of sport and which will enhance detection and reporting on these threats.

Based on these exchanges, UNODC and the International Olympic Committee (IOC), will develop a handbook with the ultimate aim of assisting sports organizations, governments, and relevant stakeholders in the development and implementation of effective reporting mechanisms for use in sport.

Candice Welsch, Chief of UNODC's Corruption and Economic Crime Branch highlighted the importance of effective reporting mechanisms in detecting crime and corruption and also emphasized the need to "move away from knee-jerk reactions to scandals in sport and focus on developing systematic reviews of governance and introduction of anti-corruption measures such as effective reporting mechanisms." The key to safeguarding sport, she said, is to "detect any cases of wrongdoing in order

to prevent or disrupt those looking to exploit sport for illegal or illicit gain."

Pâquerette Girard-Zappelli, IOC Chief Ethics and Compliance Officer noted that "To offer confidential and trustworthy reporting mechanisms is an important responsibility of sports organizations. The IOC has implemented its ' Integrity and Compliance Hotline' since 2015 and various other sports organizations have since followed suit."

To have such a mechanism in place is a requirement under the 'Olympic Movement Code on the Prevention of the Manipulation of Competitions'. As this Code is part of the Olympic Charter since 2017, it is binding on all International Sports Federations on the Olympic Programme to implement such a reporting mechanism.

The collaboration of UNODC and the IOC will assess existing mechanisms, analyse best practices and provide guidance in establishing and implementing mechanisms for reporting potential breaches of integrity in sport, particularly manipulation of competitions.

Further information:

UNODC's work on Safeguarding Sport

UNODC and International Olympic Committee enter partnership to tackle corruption in sport

Prevention of competition manipulation

## IMPORTANCE TO TRAVEL & TOURISM

Sports and tourism are now interlinked. Countries such as Thailand actually have a full-fledged ministerial portfolio combining Tourism and Sports. There is plenty of corruption in tourism. Some of the anti-ocrruption models being tested in sports may be applicable in tourism, too.

# 17 PARTNERSHIPS FOR THE GOALS

# SDG 17:

## Thousands of young people attend Model United Nations to tackle SDGs

## SDG 17: Thousands of young people attend Model United Nations to tackle SDGs

United Nations, UN News Centre, 14 February 2019 - In the year since its launch in New York, UNODC's Model United Nations Resource Guide (created by E4J, the Education for Justice initiative) has gone around the globe and proven to be a powerful resource for thousands of students. Three of the largest MUN conferences in the world have not only incorporated several UNODC mandate areas into their MUNs, but have additionally simulated one of its most important governing bodies during their events, namely CCPCJ, the Commission on Crime Prevention and Criminal Justice.

In the capital of Qatar, where the Doha Declaration was adopted and for which the Global Programme for the Implementation of the Doha Declaration was created, over 1,600 students participated last month in a Model UN whose theme was, for the first time, Sustainable Development Goal 16,

Peace, Justice and Strong Institutions.

The THIMUN Qatar conference, now the largest secondary level MUN in the MENA region, was organized by the Qatar Foundation in partnership with the THIMUN Foundation. In each simulated committee, at least one discussion was held on issues relating to crime, justice, and the rule of law; the CCPCJ simulation gave students an improved experience as they debated and approved, by consensus, two resolutions dealing with rule of law matters.

The success of this exercise was evident, facilitated by the presence of several UNODC experts and allowing coverage of a large number of important themes such as corruption, crime prevention and criminal justice, cybercrime, firearms trafficking, terrorism, and wildlife crime. Keynote speaker Neil Walsh, Chief of UNODC's

Cybercrime and Anti-Money Laundering Section, spoke to students about the constantly evolving nature of challenges to rule of law: "Cybercrime today is not the same as it was three years ago. The UN needs to constantly adapt to help Member States to fight it. Cybercrime can affect implementation of all the SDGs; to prevent that, we need strong institutions and the rule of law."

The CCPCJ experience was repeated in THIMUN's home base of The Hague, which sees its prestigious yearly MUN conference gather over 3,000 students each time. For its 51 st edition this month, THIMUN included a CCPCJ simulation, with the participation of UNODC experts. With the help of the E4J initiative, 33 teachers took part in a training workshop on its MUN Resource Guide, challenging them to think, with their respective students, on ways in which young people can support SDG16.

For Mayte Steeghs, President of the CCPCJ committee at THIMUN, educating this generation with new tools is increasingly important: "Crime will continue to grow until the paradigm of high profits and low risk is challenged. At THIMUN, we as youth are empowered to look to challenge this paradigm. The CCPCJ gives us the opportunity to start creating the innovative solutions to an ever-evolving problem."

Every year, the General Assembly hall at the United Nations headquarters in New York is overtaken by some 1,400 students at the secondary and tertiary levels, courtesy of the World Federation of United Nations Associations (WFUNA). The objective of WIMUN (WFUNA International Model United Nations) is to simulate the UN as it works in real life, meaning that participants have to adopt all of their resolutions by consensus. This month, WIMUN also featured a CCPCJ simulation, developed especially for the occasion by WFUNA's MUN expert Bill Yotive, in consultation with UNODC's Education for Justice initiative. After three days of fruitful deliberations, participants adopted a single resolution by consensus.

Gilberto Duarte, Crime Prevention and Criminal Justice Officer at UNODC, reflected at the end of the inspiring event: "WFUNA worked with UNODC to give students the real CCPCJ experience. In fact, this is exactly how the real CCPCJ works, even to the extent that the speaking notes for the chair were exactly as they would have been in Vienna!"

MUN simulation events have enjoyed a big success since their creation, giving students a taste of Member States' multilateral issues and concerns. More recently, an increasing number of organizers and eager students are taking on the challenges of crime prevention, criminal justice, and other aspects of rule of law. The popularity of CCPCJ simulations is spreading, from Cairo to Prague, and from Cancun to the University of Connecticut, to name but a few. With UNODC's MUN Resource Guide offering unique guidance on all matters relating to peace, justice, and the strong institutions which support them, experiencing CCPCJ around the world has become more accessible and real.

## IMPORTANCE TO TRAVEL & TOURISM

May be a productive format to adopt for a similar event in travel & tourism – a conference only of young people working in the industry to discuss how to apply the UN SDGs across the board.

# 17 PARTNERSHIPS FOR THE GOALS

# SDG 17:

## Parliamentarians should take action on global issues – UN chief

*The 17 Sustainable Development Goals projected on UN headquarters, New York, 2015. UN Photo/Cia Pak*

# SDG 17: Parliamentarians should take action on global issues – UN chief

United Nations, UN News centre, 21 February 2019 - Addressing parliament elected officials from around the world gathered at United Nations Headquarters in New York on Thursday for an annual hearing, UN chief António Guterres called for their support on legislation and financing of global solutions to global problems, such as climate change, uncoordinated migration and the dangers of some new technologies.

"As a former parliamentarian, I have felt the heavy responsibility of representing people and trying to advance their aspirations," said UN Secretary-General Guterres, who was elected to the Portuguese Parliament seven times, and served as Prime Minister for the country for over six years.

"Parliaments can be bastions of democracy, and crucial links between the national and the global. Through legislation and spending decisions, parliamentarians can contribute significantly to the Sustainable Development Goals, (SDGs)" he told members of the Inter-Parliamentary Union (IPU), the 130-year-old an organization that works in partnership with the UN  to enhance accountability and ensure parliamentarians are involved in global decisions.

The Secretary-General, who was elected to parliament at 26, lamented that "parliaments are still largely a sphere dominated by older men," noting that "the world needs more women parliamentarians, and more young parliamentarians".

## | The paradoxes and challenges of our time

He went on to highlight the main paradoxes the world faces today, namely: the fact that issues are more and more connected but that responses remain fragmented; a growing but slowing economy; the advances enabled by globalization and technological progress, which are also responsible for increased inequality.

"People, sectors and regions are being left behind – creating a sense of frustration," he noted. "This in turn has been a factor in reducing trust in governments, in political establishments, and in international organizations."

"It is our duty in parliaments and in the UN to re-establish trust," Mr. Guterres stated, delivering his remarks alongside UN General Assembly President, Maria Fernanda Espinosa.

Warning against the dangers of multipolarity, which he described as "a factor of equilibrium", but "not a guarantee of peace and security", he said the world needs a "networked" and "inclusive multilateralism".

"I am deeply convinced that there is no other way to deal with global challenges than with global responses, organized in a multilateral way," he explained, saying this should include close cooperation with and among inter-governmental institutions such as the World Bank, the African Union, the Arab League and others, but also with the business community, civil society, academia, and parliaments.

## | 'Tests' of cooperation

Mr. Guterres listed some current and growing major "tests" for international cooperation: climate change, migration, growing populism and nationalism, and emerging new technologies often described as the "Fourth Industrial Revolution".

"It's time to show people that multilateralism can deliver," he stated, highlighting the need to understand "why large sectors of the population in different parts of the world today feel abandoned".

Citing the many recent "good news" that prove the benefits of multilateralism and the UN – such as the recent peace deals in the Central African Republic and Yemen, the massive amounts of humanitarian aid delivered in 2018, UN reform, and recent global agreements on climate action and migration – he appealed to the parliamentarians in the room: "We need to show that politics is a noble undertaking and not merely the pursuit of power. And we need to demonstrate that our ideas, policies and programs aim at solving their problems."

## | Increasing collective ambition for 2019

With the aim of achieving "even more in 2019," the UN Secretary-General said he will be convening a Climate Summit in September "to mobilize action, partnerships, financing and, above all, ambition". Regarding new technologies, the High-level Panel on Digital Cooperation is expected to report in the months ahead on how best to harness the benefits of new technologies and artificial intelligence while safeguarding against the risks.

In meeting the Sustainable Development Goals, safe and orderly migration, and women empowerment, he highlighted the "critical role" played by parliaments in defining good governance, ensuring oversight, building partnerships and allocating funding.

As a strategy and global plan of action is in the works for the prevention of genocides, the UN is also continuing to work to "prevent, mediate and resolve conflicts" and "tackle the rise of hate speech, xenophobia and the poisonous views that are penetrating political debates".

"In all of these endeavours, I ask for your support, as the legislative branches of your governments, as political leaders in your countries, and as partners in advancing these common global goals," concluded Mr. Guterres.

## IMPORTANCE TO TRAVEL & TOURISM

Not just parliamentarians. When it comes to global issues, the people are more important than the people's political representatives. If "hate speech, xenophobia and the poisonous views are penetrating political debates," who is responsible for it? What should be done about it? By who? How?