

Before the Flood

Whether it was prescience or scientific fact the title of the film *Before the Flood* remains as relevant today as when it was released by National Geographic in October 2016. Directed by Martin Scorsese and Fisher Stevens, and persuasively presented by Leonardo DiCaprio, the film's aim is to educate the public about ways in which humans are changing the climate and to reveal the forces behind our shocking failure to address the economic and industrial causes.

The documentary throws light on the players such as corporate industrialists, the Koch brothers and Exxon Mobil among others, who front groups to create massive public disinformation through allied corporate media, corporate and political lobbyists, and to vilify scientists, propagate climate scepticism untruths — all for short term gain.

The pillaging and destruction of ecosystems are shown in skilfully-shot detail, for example the annihilation of Boreal forests through tar sands excavation for hydrocarbon consumption, the burning of the rainforests in Indonesia for palm oil, and in the Amazon for the production of beef and soya — all creating massive profits for the Food and Agriculture corporations. Scientists present strong evidence that the Arctic ice is melting so fast that the sea level rise is

due to exceed several metres in the next few decades, greatly impacting on coastal cities. Those countries which are already short of water and food will become even drier, with increasing numbers of climate change refugees.

At the same time, however, the film also offers some simple measures we can take to counter this overwhelming problem, many of which lie within the grasp of the consuming public of the developed world — as an example, the strength and success of people power in Scandinavia and China is highlighted. Sunita Narain from the Centre for Science and Environment in Delhi advocates putting lifestyle and consumption at the forefront of global negotiations.

DiCaprio is shown giving an impassioned speech to the UN General Assembly in April 2016 in his role as UN Messenger of Peace for Climate Change, asking countries to take urgent action. Following a warm meeting with Pope Francis in the Vatican, DiCaprio sums up the Pontiff's message: "The Pope has called upon the world community to accept the science of climate change, and to speak out loudly and take action. But more than anything, people need to pray for the human race." (Source: *Before the Flood*, 2016)

In the words of a Master of Wisdom: "Apart from war, nothing so profoundly affects the future of all men as much as pollution. Some countries have recognised this fact and have taken some steps to limit pollution and global warming. Others, sometimes the chief polluters, deny the reality of global warming despite the overwhelming evidence to the contrary. Daily, now, the climatic changes prove beyond doubt that the planet is sick and needs immediate and skilful care to re-establish equilibrium. Time is running out for men to halt the transformation which is being daily wrought on planet Earth. Every man, woman and child must play their part in the task. Time is, verily, running out. S.O.P. Save Our Planet!" (Source: 'S.O.P. — Save Our Planet!' by the Master —, through Benjamin Creme, 8 September 2012)

Teen on a mission to plant a trillion trees

In 2007, 9-year-old Felix Finkbeiner was online doing research for a fourth-grade school assignment on the topic of climate change when he learned of Wangari Maathai, a Kenyan woman whose efforts to recover barren land resulted in the planting of 30 million trees, for which she was awarded the Nobel Prize in 2004. Deeply inspired, Finkbeiner had a vision... Considering that each tree binds a CO₂ intake of 10kg per year, if children around the world could plant one million trees in every country on earth, they could offset CO₂ emissions all on their own.

Felix Finkbeiner's teacher was impressed by his presentation and asked him to give it again to other students and the headmaster. At the close of his talk, he pledged to plant one million trees in Germany. A movement was born. Two months later, Finkbeiner planted his first tree, a crab apple, near the entrance to his school. Klaus Töpfer, former German Federal Minister of the Environment and executive director of the United Nations Environment Programme (UNEP), then became his official patron, and at the age of 10, Finkbeiner became a UNEP Junior Board Member. He was invited to speak at import-



The then 13-year old Felix Finkbeiner speaking at the United Nations.

ant environment and climate events, as well as to the European Parliament.

Finkbeiner established Plant-for-the-Planet academies in Germany and around the world; events organized by children for children, where they become active Climate Justice Ambassadors, pass on their knowledge and encourage other children to take on social responsibility and shape their future. In 2009, at UNEP's children and youth conference in South Korea, 800 children adopted a declaration for the climate summit in Copenhagen. Finkbeiner asked the audience who else among them would be willing to plant one million trees in their own country? Minutes later, hundreds of children from 56 different nations came onto the stage to signal their support for the vision of Plant-for-the-Planet.

In 2010, Germany planted its millionth tree, and a year later, at the age of 13, Finkbeiner delivered a speech at the UN in New York. The UN also turned over stewardship of its Billion Tree campaign to his organization.

Today, more than 63,000 children between the ages of 9-12 are affiliated with Felix Finkbeiner's organization, fighting for their future as Ambassadors for Climate Justice. To assess if their efforts were keeping up with continuing deforestation around the world, the group commissioned a study, published in *Nature* in 2015 which found that Earth has 3 trillion trees – seven times the number previously estimated. It also discovered that since the dawn of agriculture 12,000 years ago, the world's tree population has fallen by nearly half and that approximately 10 billion trees die every year. This implies that a billion new trees is not enough. Plant-for-the-Planet now aims to plant one trillion trees by the year 2020. These are expected to absorb an additional 10 billion tons of carbon dioxide every year – buying time for the world to get serious about reducing carbon emissions. (Source: news.nationalgeographic.com; plant-for-the-planet.org)

India plants 66 million trees in 12 hours

On 2 July 2017 volunteers in India planted more than 66 million trees in just 12 hours in a record-breaking environmental project organized by the Madhya Pradesh state gov-



photo: newsgreen.com

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ernment. 1.5 million volunteers of all ages planted 20 different species of trees along the Narmada river basin, chosen as the best site to increase the saplings' chances of survival.

India is the world's third largest generator of carbon emissions and is committed under the Paris Climate Agreement to increasing its forests by five million hectares before 2030 to combat climate change. At a joint press conference with French President Emmanuel Macron in June 2017, India's Prime Minister Narendra Modi reaffirmed his country's commitment to the Paris climate accord after the US withdrew from the deal, when he said: "The protection of the environment and the mother planet is an article of faith."

(Source: theindependent.com)

Pakistan plants a billion trees

In August 2017 Pakistan's Billion Tree Tsunami Project was completed in the north-west province of Khyber Pakhtunkhwa. The idea for the project came from cricketer and politician Imran Khan, who wanted to restore the province's forests after decades of widespread felling, which left the region increasingly vulnerable to flooding and landslides. In April 2016, heavy rain led to flash floods killing at least 71 people. Khan explained: "One of the biggest reasons glaciers are melting in the mountains is because

there has been massive deforestation, so this billion trees project is very significant for our future."

As trees absorb carbon dioxide from the atmosphere, it is hoped that the project will also help to slow down climate change. Pakistan is extremely vulnerable to the increased risk of natural disasters and in the 2017 Global Climate Risk Index was ranked in the top 10 countries most likely to be affected by long-term changes.

The Billion Tree Tsunami was successfully completed four months ahead of schedule, and is now due to be replicated across Pakistan. (Source: *Positive News*, UK)

Earth Overshoot Day gets earlier and earlier

Earth Overshoot Day (EOD), previously known as Ecological Debt Day (EDD), is the date on which humanity's resource consumption for the year exceeds Earth's capacity to regenerate those resources that year. It is a way of registering how well or poorly humanity is doing in terms of its use of natural resources. It is a measure of sustainability.

Earth Overshoot Day was on 2 August in 2017, according to environmental groups WWF (World Wide Fund for Nature) and the Global Footprint Network (GFN) (an in-

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ternational research institute based in Oakland, California). However, with every year that passes, the fateful day arrives earlier and earlier. We have already used up our allowance for water, soil, clean air and other resources on Earth for the whole of 2017.

The date, earlier this year than in 2016, means humanity will survive on “credit” until 31 December. “This means that in seven months, we emitted more carbon than the oceans and forests can absorb in a year, we caught more fish, felled more trees, harvested more, and consumed more water than the Earth was able to produce in the same period,” said WWF and the GFN. And given that fact, we will inevitably overexploit the ecosystems in order to be able to go on eating, drinking, heating our buildings or going anywhere we need to go.

According to campaigners, the equivalent of 1.7 planets would be needed to produce enough natural resources to match our consumption rates and a growing population.

Some nations are more culpable than others. Based on the lifestyle of the Australian or the American, we would need five planets. The French would need three and for the Chinese it would be 2.1, whereas India would only require 0.6 while the Japanese would need seven times the resources of their own country to meet the demand of

their national consumption, and Italy and the UK would require four countries. In total, the ecological footprint of the developed nations is five times higher than that of the poor countries.

The Earth Overshoot Day measure has been calculated since 1986 and the day has never fallen so early as in 2017. It looks at the balance between global footprint – what humans take from the earth – and biocapacity, which allows us to produce resources and absorb our waste.

In the 1980s, the overshoot day fell in November, shifting back to October by 1993 and to September just after the millennium. By 2016 it had reached 8 August.

Scientists also calculate the overshoot day for individual countries, providing a measure of where the day would fall if the whole world consumed the same as one country. In the UK, the day is even earlier, on 4 May.

Campaigners and charities advised individuals to help reverse the trend by eating less meat, burning less fuel and cutting back on food waste. GFN reported that food makes up 26 per cent of our global footprint, and if we cut food waste in half, ate less protein-intensive foods and consumed more fruit and vegetables, it could be reduced to 16 per cent.

GFN has analyzed more than 15,000 United Nations statistics, measured the ex-

ploitation of natural resources and compared it with the biocapacity of the planet, that is, its ability to rebuild its reserves and absorb the greenhouse gases. According to their calculations, human consumption over uses the resources available by 70 per cent. Forests are depleted at a greater rate than they grow; we catch more fish than fish stocks require to replenish themselves and we emit more carbon in our atmosphere than nature can deal with. The evident consequences of this overconsumption are: deforestation, decline of biodiversity, water shortages, acidification of oceans, soil erosion or increase of the concentration of CO₂ in the atmosphere.

According to Mathis Wackernagel, Chairman of GFN, even if we wished to postpone Earth Overshoot Day by 4.5 days every year, we would only get back to balance by year 2030. “Our planet is limited but human possibilities are not,” Wackernagel emphasizes. But there are already some positive signs: the US ecological footprint per capita has decreased by almost 20 per cent between 2005 and 2013, thanks to lower carbon emissions. China increased the surfaces dedicated to biological agriculture by 17 per cent in 2016 and the consumption of biofood of households has gone up by 22 per cent in only one year. Though these efforts are still feeble, they are encouraging. (Source: lemonde.fr; overshootday.org) ●

Wise words

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and not enough of the ‘we,’ we find ourselves vulnerable, fearful and alone.” What we need to do, he says, is to strengthen the future “us” in three dimensions: the “us of relationship,” the “us of responsibility” and the “us of identity.” And above all we need to embrace otherness, to celebrate and respect difference.

In an age when narrowcasting, not broadcasting, dominates, and when we surround ourselves only with the ideas we feel comfortable with, our relationship with others suffers. “We need to renew those face-to-face encounters with the people not like us in order to realize that we can disagree strongly and still stay friends,” Sacks says. “In those encounters, we discover that

the people not like us are just people, like us.”

Sacks eloquently and humorously moves on to immigration and immigrants; if one has a strong sense of one’s own identity one doesn’t feel threatened by that of others and so the stranger can be welcomed, not feared.

Finally, the “us of responsibility”: Sacks finds that we’ve fallen into “magical thinking”, when we believe that electing a particular strong leader will solve all of our problems. When this kind of thinking dominates, we fall for extremism – of the far right or far left, the extreme religious or extreme anti-religious.

“The only people that will save us from ourselves is we, the people – all of us together,” Sacks says. “When we move from the politics of ‘me’ to the politics of ‘all of us together,’ we rediscover those beautiful,

counter-intuitive truths: that a nation is strong when it cares for the weak, that it becomes rich when it cares for the poor, and it becomes invulnerable when it cares about the vulnerable. That is what makes great nations.”

Sacks leaves us with a simple suggestion: “Do a search-and-replace operation on the text of your mind. Wherever you encounter the word ‘self,’ substitute the word ‘other.’ Instead of self-help, other-help. Instead of self-esteem, other-esteem. We can face any future without fear so long as we know that we won’t face it alone.” (Source: ted.com)

*Footnote: TED – a non-profit devoted to spreading ideas usually in the form of short talks (originating from a conference in 1984 on Technology, Entertainment and Design created by Richard Saul Wurman) ●