



Centrum pro výzkum  
toxických látek  
v prostředí

# ENV016 Udržitelný rozvoj II

## - souvislosti environmentálního pilíře



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

Inovace a rozšíření výuky zaměřené na problematiku životního prostředí na PŘF MU (CZ.1.07/2.2.00/15.0213)  
spolufinancován Evropským sociálním fondem a státním rozpočtem České republiky

## Osnova předmětu

### ENV016 Udržitelný rozvoj II – souvislosti environm. pilíře

- 1) Globální úspěchy a prohry
- 2) Ekologické určení vztahu člověka k ŽP
- 3) Environmentální souvislosti získávání energie
- 4) Environmentální souvislosti získávání potravy
- 5) Vztah ekologie a environmentalistiky, historický vývoj
- 7) Environmentální etika
- 9) Environmentální ekonomie
- 10) Environmentální právo a politika
- 12) Hodnotová řešení environmentální krize





# Sociální rozvoj



Our Work

Millennium Development Goals

Our Perspective

Home >

The Millennium Development Goals

## Eight Goals for 2015



**1** Eradicate extreme poverty and hunger



**2** Achieve universal primary education



**3** Promote gender equality and empower women



**4** Reduce child mortality



**5** Improve maternal health



**6** Combat HIV/AIDS, malaria and other diseases



**7** Ensure environmental sustainability



**8** Develop a global partnership for development





# Final assessment of progress toward achieving the MDGs

The most successful anti-poverty movement in history

An inspiring framework that has led to many successes in numerous development areas since 2000

The successes of the MDG agenda prove that global action works. It is the only path to ensure that the new development agenda leaves no one behind

The Millennium Development Goals Report  
2015



Photo: © UNICEF/Syed Altaf Ahmad



THE MILLENNIUM DEVELOPMENT GOALS (MDGs) ARE THE MOST SUCCESSFUL GLOBAL ANTI-POVERTY PUSH IN HISTORY. AS WE APPROACH THE 2015 TARGET DATE OF THE MDGs, LET'S RALLY OUR WORLD TO STEP UP **#MDGMOMENTUM**

**MDG1**



ERADICATE  
EXTREME POVERTY  
AND HUNGER



**EXTREME  
POVERTY**

RATES HAVE BEEN

**CUT IN**

**HALF**

SINCE 1990

**LET'S  
STEP  
UP**

**WORLD  
WIDE**

**1 IN 8 REMAIN  
PEOPLE HUNGRY**

**SHARE**

**#MDGMOMENTUM**  
WITH YOUR COMMUNITY!



# Poverty rates have been more than halved

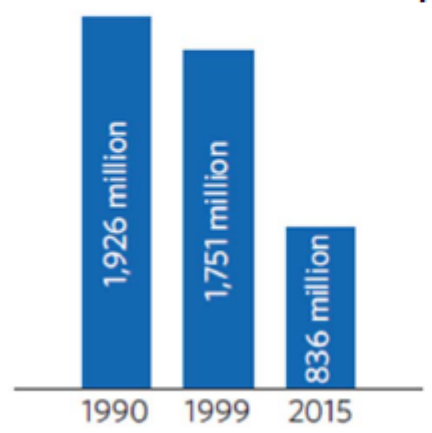
## Goal: Eradicate extreme poverty and hunger

### Extreme poverty rate in developing countries



In 1990, **nearly half** of the population in the developing world lived on less than \$1.25 a day; that proportion dropped to **14 per cent** in 2015.

### Global number of extreme poor



This translates to over **1 billion people** lifted out of extreme poverty.

The proportion of undernourished people in the developing regions has **fallen by almost half** since 1990.



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**MDG2**



ACHIEVE UNIVERSAL PRIMARY EDUCATION

# PRIMARY SCHOOL ENROLMENT

IN DEVELOPING REGIONS HAS

REACHED **90%**



**LET'S STEP UP**

**57 MILLION** CHILDREN REMAIN OUT OF SCHOOL

**SHARE**

#MDGMOMENTUM WITH YOUR COMMUNITY!





2

ACHIEVE UNIVERSAL  
PRIMARY EDUCATION

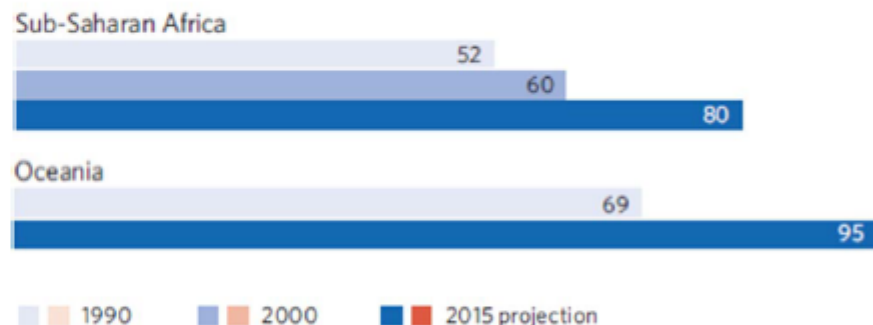
## Tremendous progress has been made since 2000 in enrolling children in primary school

### Goal: Achieve universal primary education

The developing regions' primary school net enrolment rate has reached **91 per cent** in 2015, up from 83 per cent in 2000.

The target is close to being reached in all regions except sub-Saharan Africa. **Greatest progress** in primary school enrolment among all developing regions **occurred in sub-Saharan Africa**.

#### Adjusted net enrolment rate\* in primary education, sub-Saharan Africa and Oceania, 1990, 2000 and 2015 (percentage)



\* Adjusted net enrolment rate is defined as the number of pupils of the official age for primary education enrolled either in primary or secondary school, expressed as a percentage of the total population in that age group.

Note: 2000 figure for Oceania is not available.



HE NAMED ME  
**MALALA**



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**MDG3**



PROMOTE GENDER EQUALITY AND EMPOWER WOMEN

...→ THE WORLD HAS

**ACHIEVED  
EQUALITY**

IN **PRIMARY  
EDUCATION**  
BETWEEN GIRLS AND BOYS

IN MANY  
COUNTRIES

**WOMEN STILL FACE  
DISCRIMINATION**

IN ACCESS TO  
EDUCATION, WORK  
AND PARTICIPATION  
IN DECISION-MAKING.

**LET'S  
STEP  
UP**

**SHARE** **#MDGMOMENTUM**  
WITH YOUR COMMUNITY!



PROMOTE GENDER  
EQUALITY AND  
EMPOWER WOMEN

## The developing regions have reached gender parity in primary, secondary and tertiary education

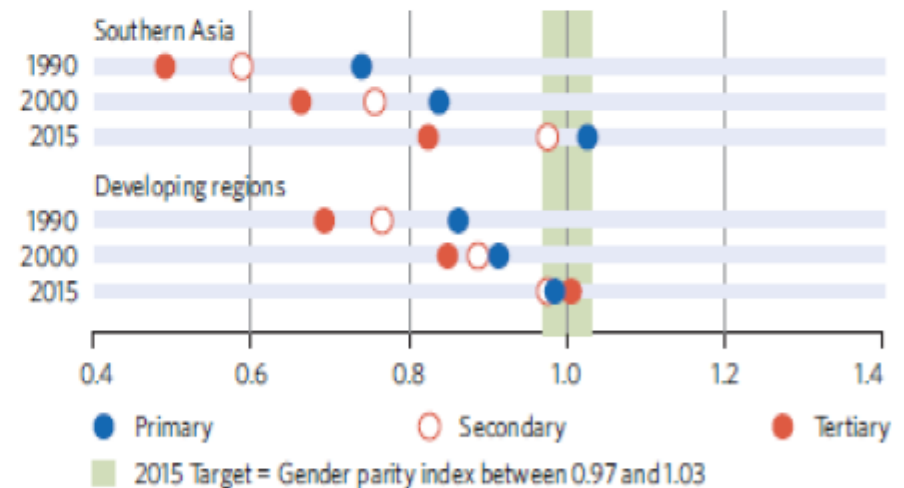
### Goal: Promote gender equality and empower women

The developing regions as a whole have achieved the target to eliminate gender disparity in primary, secondary and tertiary education.

In Southern Asia, only 74 girls were enrolled in primary school for every 100 boys in 1990. Today, 103 girls are enrolled for every 100 boys.

Women have gained ground in parliamentary representation in nearly 90 per cent of the 174 countries with data over the past 20 years.

Gender parity index\* for gross enrolment ratios in primary, secondary and tertiary education in Southern Asia and the developing regions, 1990, 2000 and 2015



\* The gender parity index is defined as the ratio of the female gross enrolment ratio to the male gross enrolment ratio for each level of education.



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AS WE APPROACH THE 2015 TARGET DATE OF THE MDGs, LET'S RALLY OUR WORLD TO STEP UP **#MDGMOMENTUM**

**MDG4**



REDUCE CHILD MORTALITY

**14,000 FEWER**

**CHILDREN DIE EACH DAY** THAN IN 1990

**LET'S STEP UP**

**6.9 MILLION CHILDREN**

**STILL DIE**

BEFORE THEIR FIFTH BIRTHDAY EACH YEAR

**SHARE**

**#MDGMOMENTUM** WITH YOUR COMMUNITY!



4

REDUCE  
CHILD MORTALITY

## Dramatic decline in preventable child deaths is one of the most significant achievements in human history

### Goal: Reduce child mortality



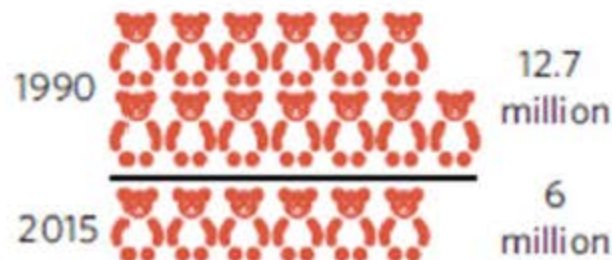
Photo: © UNICEF/Esiebo

Since the early 1990s, the rate of reduction of under-five mortality has more than tripled globally.

The global under-five mortality rate has declined by more than half, dropping from 90 to 43 deaths per 1,000 live births between 1990 and 2015.

Measles vaccination helped prevent nearly 15.6 million deaths between 2000 and 2013.

#### Global number of deaths of children under five



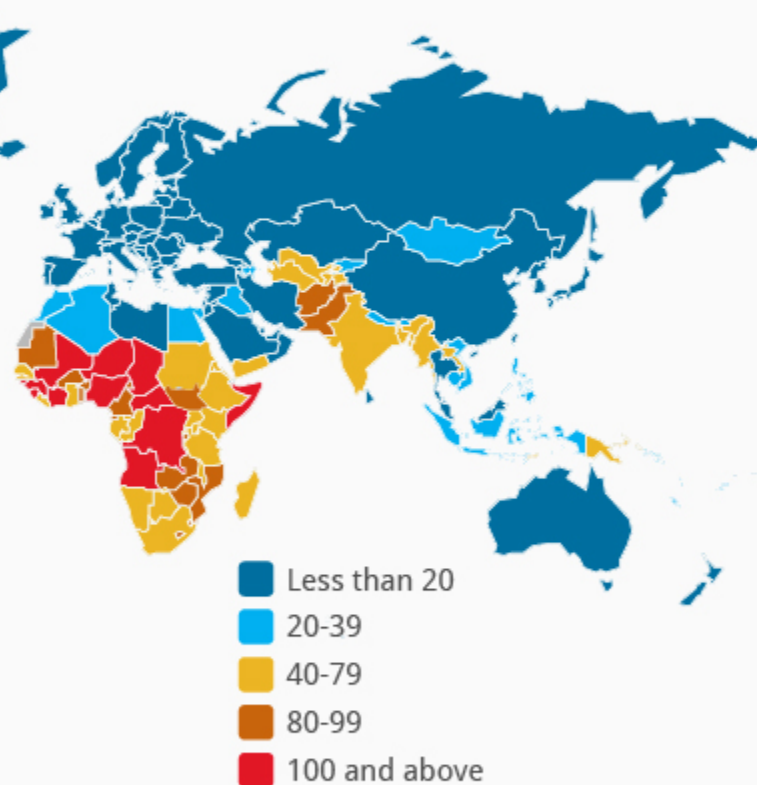
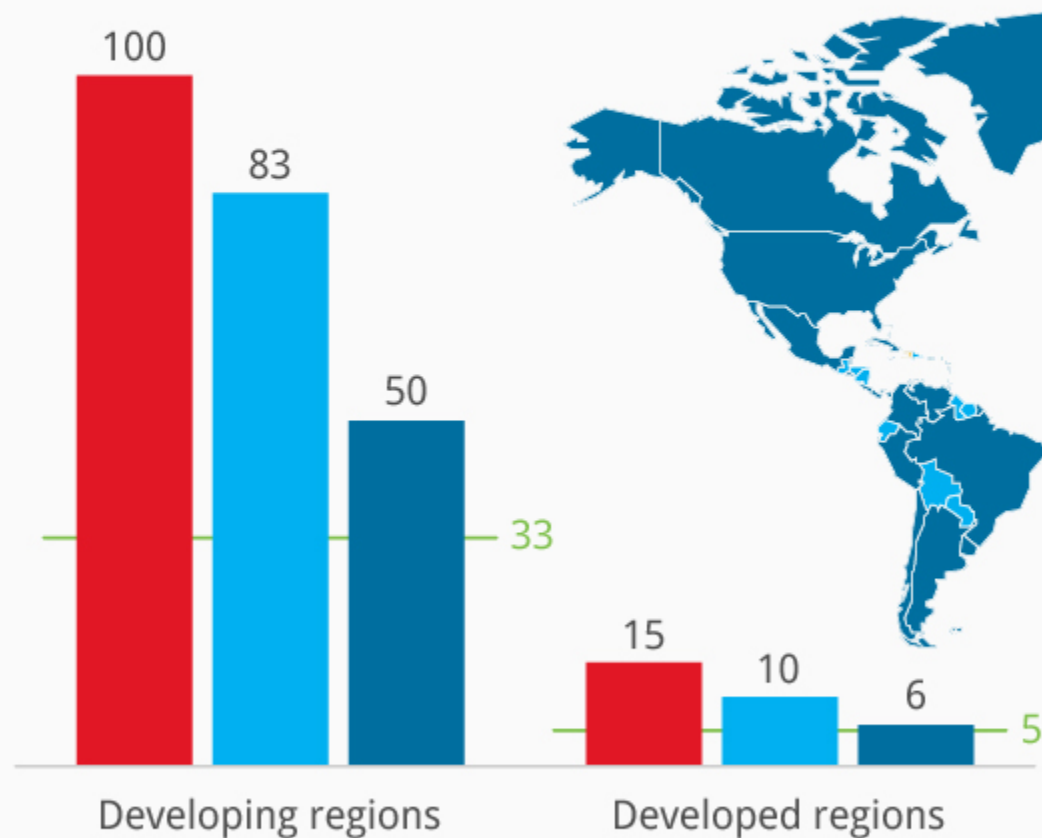
# Child Mortality Remains a Key Concern in Developing Regions

Under-five mortality rate (deaths per 1,000 live births)

1990 2000 2013

Millenium Development Goal 2015

Under-five mortality rate 2013



Source: United Nations Inter-agency Group for Child Mortality Estimation



NEWS

# Anti-Vaccine Movements Not Unique to the U.S.

Skepticism about vaccinations abounds in other countries as well.



By [Teresa Welsh](#), Staff Writer | Feb. 18, 2015, at 12:01 a.m.




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**MDG5**



IMPROVE MATERNAL HEALTH

**MATERNAL MORTALITY**

FELL BY **↓ 47%** SINCE 1990

**LET'S STEP UP**

**ONLY HALF OF WOMEN**  
IN DEVELOPING REGIONS RECEIVE

RECOMMENDED **HEALTH CARE** DURING PREGNANCY.

**SHARE #MDGMOMENTUM** WITH YOUR COMMUNITY!



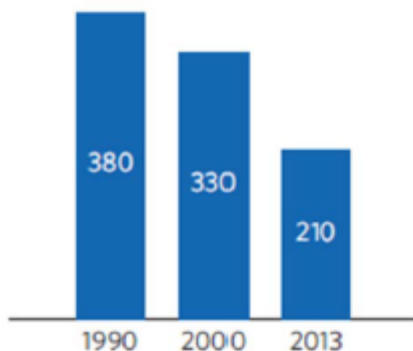
5

IMPROVE MATERNAL HEALTH

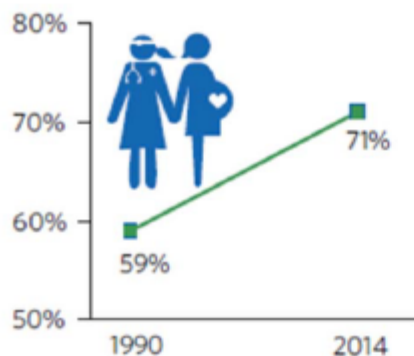
# Steady progress was made to improve maternal health

## Goal: Improve maternal health

Global maternal mortality ratio (deaths per 100,000 live births)



Global births attended by skilled health personnel



Since 1990, the **maternal mortality ratio** has declined by **45 per cent worldwide**, and most of the reduction has occurred since 2000.

More than **71 per cent** of births were assisted by skilled health personnel globally in 2014, an increase from 59 per cent in 1990.



## BEZPEČNÝ POROD

Pomáhejte s Člověkem v tísni. Tento dárek má hodnotu zdravotnického materiálu, který umožní bezpečný porod pro jednu ženu v chudých oblastech Kambodže.

*Nákupem tohoto darovacího certifikátu přispějete na program pomoci [ZDRAVÍ](#) v rámci sbírky Skutečná pomoc.*

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To se mi líbí 15

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AS WE APPROACH THE 2015 TARGET DATE OF THE MDGs, LET'S RALLY OUR WORLD TO STEP UP **#MDGMOMENTUM**

**MDG6**



COMBAT HIV/AIDS, MALARIA AND OTHER DISEASES



**8 MILLION PEOPLE WERE RECEIVING LIFESAVING MEDICINES FOR HIV IN 2011**



**1.1 MILLION MALARIA DEATHS WERE PREVENTED IN THE SPAN OF 10 YEARS**

**LET'S STEP UP**



**7 MILLION PEOPLE STILL LACKED ACCESS TO ANTIRETROVIRAL THERAPY FOR HIV IN 2011**



**80% OF MALARIA DEATHS OCCUR IN JUST 14 COUNTRIES**

**SHARE #MDGMOMENTUM WITH YOUR COMMUNITY!**



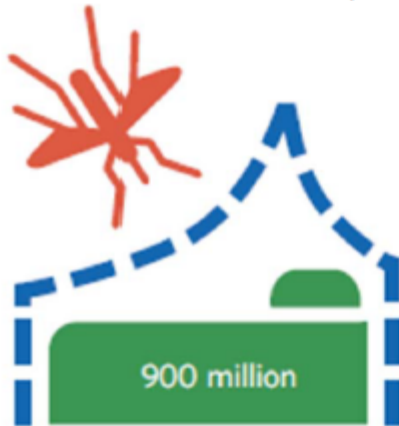
6

COMBAT HIV/AIDS,  
MALARIA AND OTHER  
DISEASES

## Malaria and TB incidence have halted and reversed

### Goal: Combat HIV/AIDS, malaria and other diseases

Number of insecticide treated mosquito nets delivered in sub-Saharan Africa, 2004–2014



Over 6.2 million malaria deaths have been averted between 2000 and 2015, primarily of children under five years of age in sub-Saharan Africa.

More than 900 million insecticide-treated mosquito nets were delivered to malaria-endemic countries in sub-Saharan Africa between 2004 and 2014.

Between 2000 and 2013, tuberculosis prevention, diagnosis and treatment interventions saved an estimated 37 million lives.



6

COMBAT HIV/AIDS,  
MALARIA AND OTHER  
DISEASES

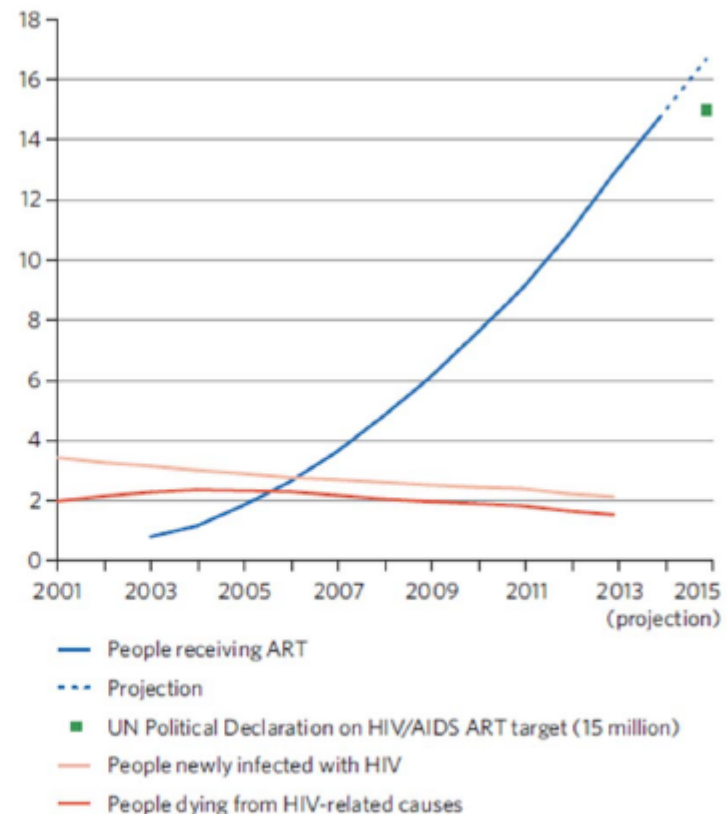
# HIV infections fell in many regions of the world

## Goal: Combat HIV/AIDS, malaria and other diseases

New HIV infections fell by approximately 40 per cent between 2000 and 2013, from an estimated 3.5 million cases to 2.1 million.

By June 2014, 13.6 million people living with HIV were receiving antiretroviral therapy (ART) globally, an immense increase from just 800,000 in 2003. ART averted 7.6 million deaths from AIDS between 1995 and 2013.

Number of people receiving antiretroviral therapy, 2003-2015, number of deaths from AIDS-related causes and number of people newly infected with HIV, 2001-2013 (millions)





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**MDG7**



ENSURE ENVIRONMENTAL SUSTAINABILITY

**2.1 BILLION PEOPLE**

GAINED ACCESS TO **CLEAN DRINKING WATER**

SINCE 1990

**LET'S STEP UP**

**2.5 BILLION** DO NOT HAVE BASIC **SANITATION**

SUCH AS TOILETS OR LATRINES

**SHARE**

**#MDGMOMENTUM** WITH YOUR COMMUNITY!



ENSURE  
ENVIRONMENTAL  
SUSTAINABILITY

# Safe drinking water and ozone protection targets met

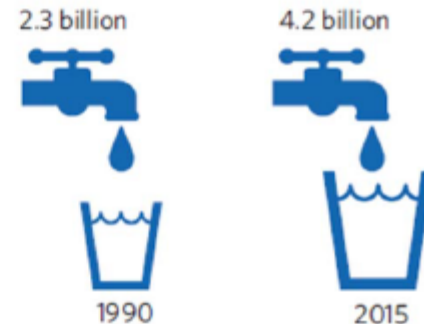
## Goal: Ensure environmental sustainability

In 2015, 91% of the global population is using an improved drinking water source, up from 76% in 1990— the target was met **5 years ahead of the 2015 deadline**.

Of the **2.6 billion** people who have gained access to improved drinking water since 1990, **1.9 billion** gained access to piped drinking water on premises.

Ozone-depleting substances have been virtually eliminated since 1990, and the **ozone layer is expected to recover** by the middle of this century.

**1.9 billion people have gained access to piped drinking water since 1990**



**98% of ozone-depleting substances eliminated since 1990**







THE MILLENNIUM DEVELOPMENT GOALS (MDGs) ARE THE MOST SUCCESSFUL GLOBAL ANTI-POVERTY PUSH IN HISTORY. LET'S STEP UP ACTION TO THE 2015 MDG TARGET DATE AND BEYOND.

**MDG 8**



A GLOBAL PARTNERSHIP FOR DEVELOPMENT

**DEBT** SERVICE HAS **DECLINED** FOR DEVELOPING COUNTRIES

**↑ TRADE** CLIMATE CONTINUES TO **IMPROVE**

**LET'S STEP UP**

**AID MONEY**

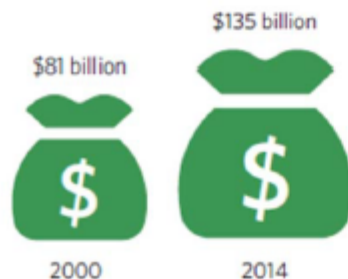
HIT A RECORD HIGH \$134.8 BILLION IN 2013, BUT **SHIFTED AWAY FROM THE POOREST COUNTRIES**



## Global improvements in official development assistance, mobile-cellular subscriptions and internet penetration

### Goal: Develop a global partnership for development

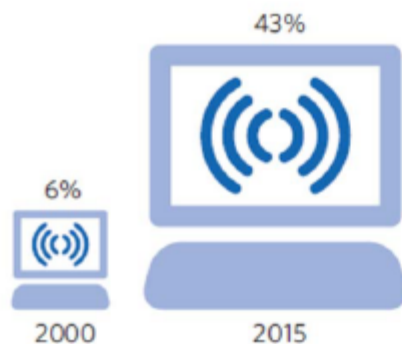
#### Official development assistance (ODA)



ODA increased by 66% in real terms between 2000 and 2014, reaching **\$135.2 billion**.

The number of **mobile-cellular subscriptions** has **grown almost tenfold** in the last 15 years: from 738 million to over **7 billion** (2000-2015).

#### Internet penetration



**Internet penetration** has grown from just over 6 per cent of the world's population in 2000 to 43 per cent in 2015-- translating to **3.2 billion people** linked to a global network.



# Individuální dárcovství v ČR v roce 2015

## Češi darují rádi a začíná jim vyhovovat dlouhodobá podpora

Výsledky výzkumů veřejného mínění ukazují, že Češi rádi darují - alespoň jednou ročně každý druhý z nás.

I výše darů, kterou si podle dat z ministerstva financí odepisujeme z daní, vykazuje průběžný nárůst a za loňský rok to bylo něco přes 1,7 miliardy korun.

„Když se podíváme na to, co říkají čísla a výše darů, stojí si čeští dárci i ve srovnání s evropským kontextem dobře," říká Klára Šplíchalová z Fóra dárců. „Dlouhodobě jsme však byli spíš jednorázovými podporovateli, zatímco v posledním roce pozorujeme, že se tento trend postupně začíná měnit. Češi začínají podporovat charitativní aktivity spíše dlouhodobě, a nebo se o tuto podporu aktivně zajímají."

**Dlouhodobá a pravidelná podpora vybrané neziskovky, ať už finanční nebo nefinanční, je velmi důležitý trend, který Českou republiku pomalu posouvá do vyspělé Evropy.**

Výše průměrného ročního daru je srovnatelná s evropskou úrovní, protože v dlouhodobém časovém horizontu dosahuje přibližně 10,5 tis. korun ročně.

Více informací najdete v Tiskové zprávě, viz níže.



[Tisková zpráva](#)

## Aktuality

01.02 2018	Digitální charita 2018: Musí být autentická a zaujmout na první dobrou
17.01 2018	Dobročinnost potřebuje rovné podmínky v Evropě
03.01 2018	Juraj Flamik z brněnské Nadace Partnerství získal státní vyznamenání od slovenského prezidenta
20.12 2017	PF 2018
04.12 2017	Dozvuky z Dárcovského summitu 2017
30.11 2017	Ceny Fóra dárců 2017: nejlepší veřejně prospěšné projekty roku
29.11 2017	Negativním výrokům politiků o neziskovém sektoru lidé sice

## Bilance plnění Rozvojových cílů tisíciletí

### Splněno

Počet lidí žijících s méně než 1,25 dolaru na den klesl z 1,9 miliardy v roce 1990 na 836 milionů. Těsně se nepodařilo snížit na polovinu i počet hladovějících.

Dvě třetiny rozvojových zemí dosáhly rovnosti mezi dívkami a chlapci v přístupu k základnímu vzdělání.

Zhruba 2,6 miliardy lidí získaly ve srovnání s rokem 1990 přístup k lepší pitné vodě; 663 milionů lidí však stále snadný přístup k pitné vodě nemá.

### Splněno částečně

Počet úmrtí na malárii díky přístupu k lékům, moskytiérám a časnějšímu testování při příznacích klesl ve srovnání s rokem 2000 o 60 procent. Epidemii se tedy podařilo zastavit a zvrátit. To se však nezdařilo s epidemií AIDS.

V letech 2000–2014 stoupl objem rozvojové pomoci o 66 procent. Cílem bylo vytvořit partnerství pro globální rozvoj.

### Nesplněno

Dětská úmrtnost v posledních 25 letech klesla o více než polovinu – z 90 na 43 úmrtí/tisíc porodů. Cíl spočíval ve snížení o dvě třetiny.

Počet dětí chodících do základních škol se zvýšil z 83 procent v roce 2000 na 91 procent. Cíl byl všechny děti světa v ZŠ.

Úmrtnost žen při porodech klesla o necelou polovinu, cílem bylo snížit ji o dvě třetiny.





Leaving no one behind

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# Gender inequality persists

Women continue to face discrimination in access to work, economic assets and participation in private and public decision-making.

Women are also more likely to live in poverty than men.

Only one in five national parliament members are women.



Photo: ©Tran Thi Hoa/World Bank

# Big gaps exist between the poorest and the richest; between rural and urban areas



Photo: © UNICEF/Romenzi

Children in the poorest households are **four times as likely to be out of school** as those in the richest households.

Under-five mortality rates are almost **twice as high for children in the poorest households** as for children in the richest.

About **50 per cent of people living in rural areas lack improved sanitation facilities**, compared to only 18 per cent of people in urban areas.

# Millions of poor people still live in poverty and hunger, without access to basic services

About 800 million people still live in extreme poverty and suffer from hunger.

Almost half of global workers are still working in vulnerable conditions.

About 16,000 children die each day before celebrating their fifth birthday, mostly from preventable causes.

1 in 3 people (2.4 billion) still use unimproved sanitation facilities— 946 million people still practise open defecation.

880 million people are estimated to be living in slum-like conditions.



Photo: ©Kaori Kobayashi/UNDP Picture This



# Conflicts remain the biggest threat to human development



Photo: ©Jodi Hilton/IRIN

By the end of 2014, conflicts had forced almost **60 million people** to abandon their homes—the highest level recorded since the Second World War.

Every day, **42,000 people on average** are forcibly displaced and compelled to seek protection due to conflicts, almost four times the 2010 number of 11,000.

Fragile and conflict-affected countries typically have the **highest poverty rates**.

# Climate change: The great civilisation destroyer?

War and unrest, and the collapse of many mighty empires, often followed changes in local climates. Is this more than a coincidence?



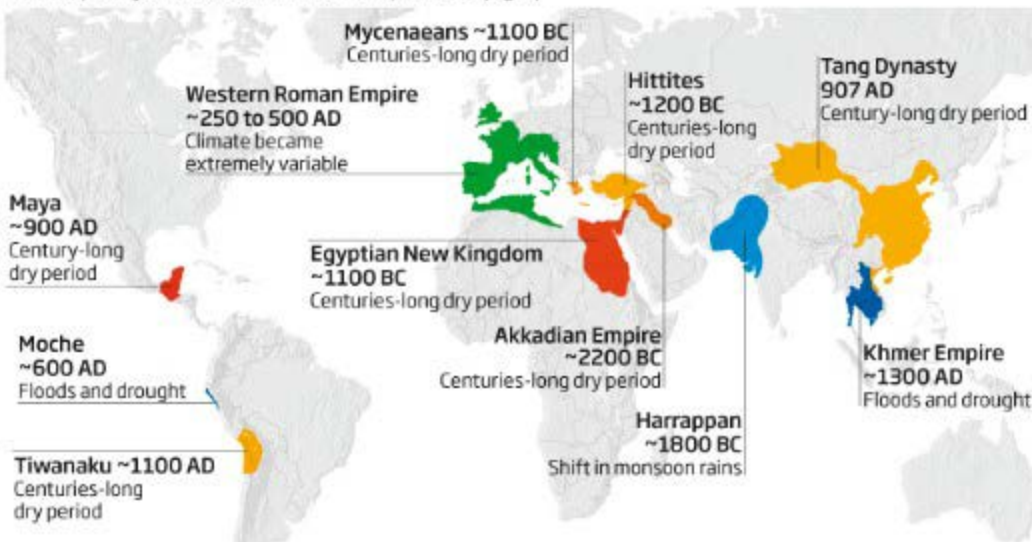
# Climate change: The great civilisation destroyer?

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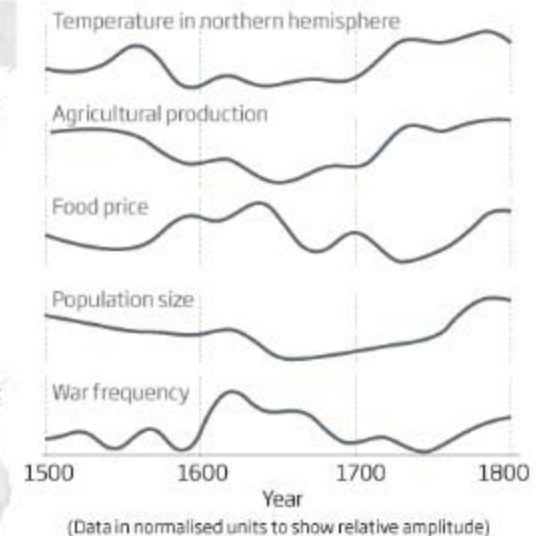


## More than coincidence?

The decline and fall of many civilisations coincided with periods of climate change, and there are also correlations between climate change, population size and the frequency of wars, as data from Europe shows (right)



©NewScientist



# Climate change and environmental degradation undermine progress achieved

Global emissions of carbon dioxide have increased by **over 50 per cent** since 1990.

**Water scarcity affects 40 per cent of people in the world** and is projected to increase.

Overexploitation of marine fish stocks led to **declines in the percentage of stocks within safe biological limits**, down from 90 per cent in 1974 to 71 per cent in 2011.



Photo: © UN Photo/Ky Chung

# Climate change and environmental degradation undermine progress achieved



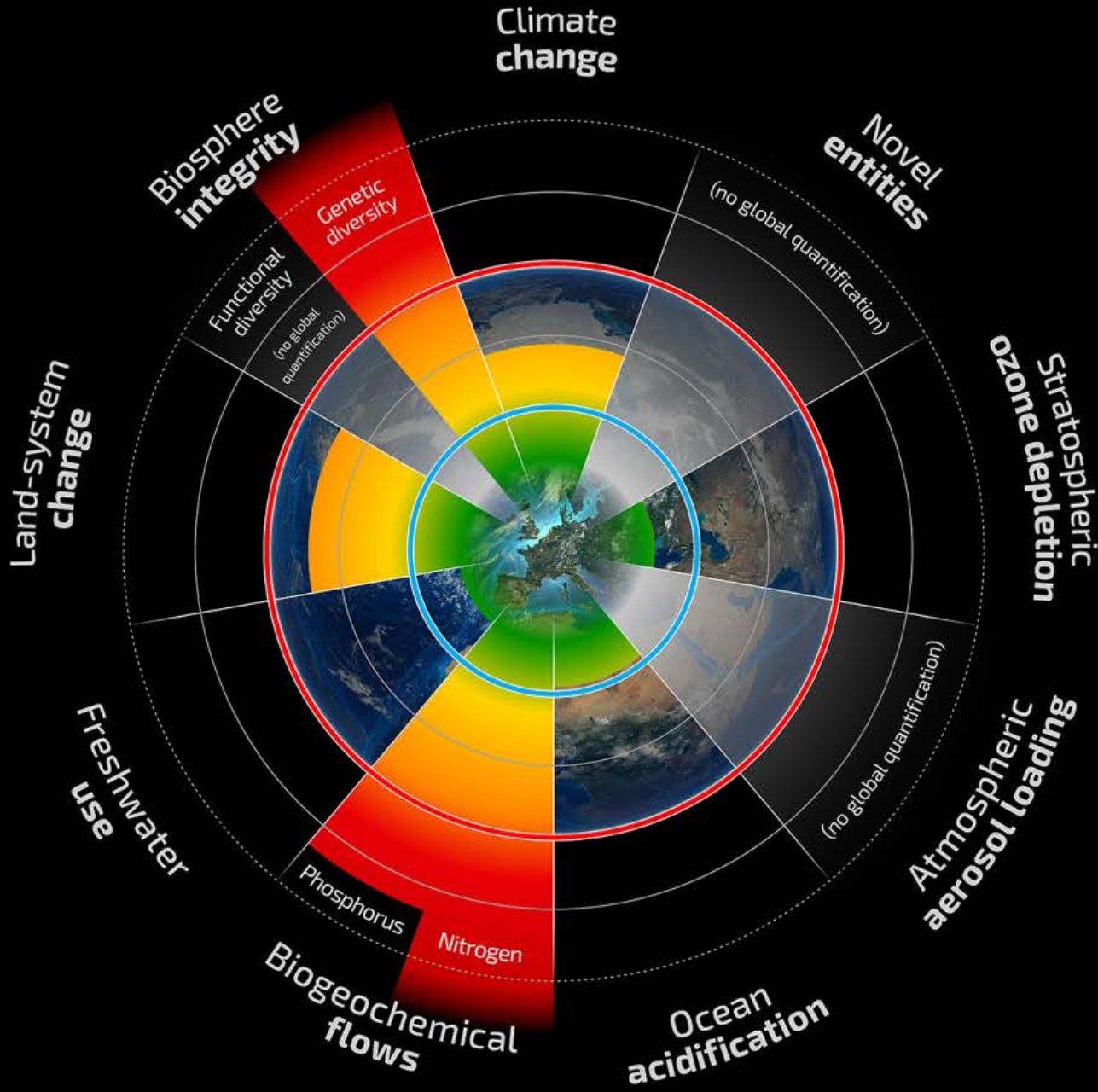
Tomáš Brolík a foto: Matěj Stránský  
16. 2. 2019 | aktualizace 17. 2. 2019 15:42



NašProstředí Plánky

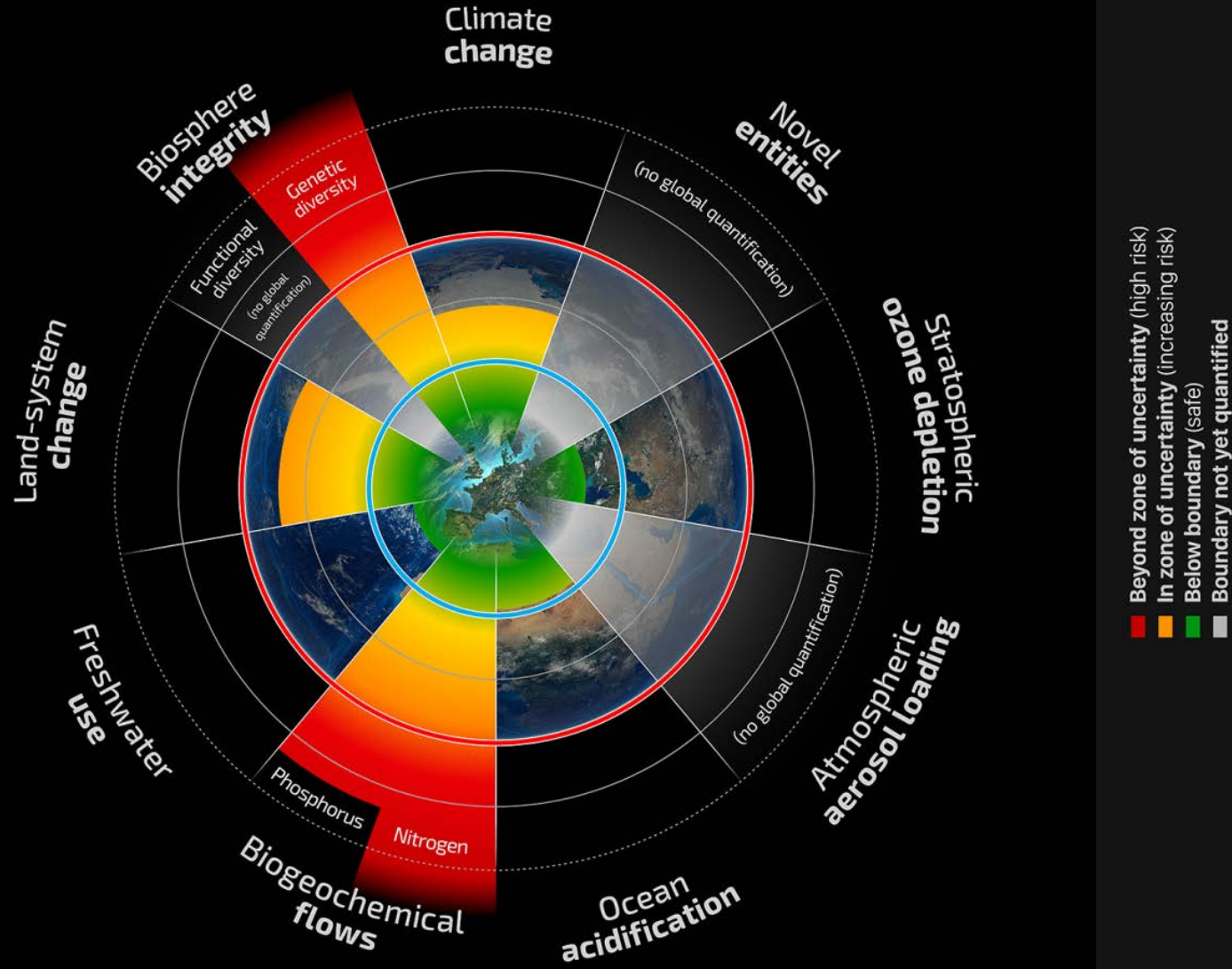
# Planetary Boundaries

A safe operating space for humanity



- Beyond zone of uncertainty (high risk)
- In zone of uncertainty (increasing risk)
- Below boundary (safe)
- Boundary not yet quantified

# I. Soudržnost biosféry







## Insects

**Damian Carrington**  
Environment editor

@dpcarrington

Sun 10 Feb 2019 18.00 GMT



263 756 1393

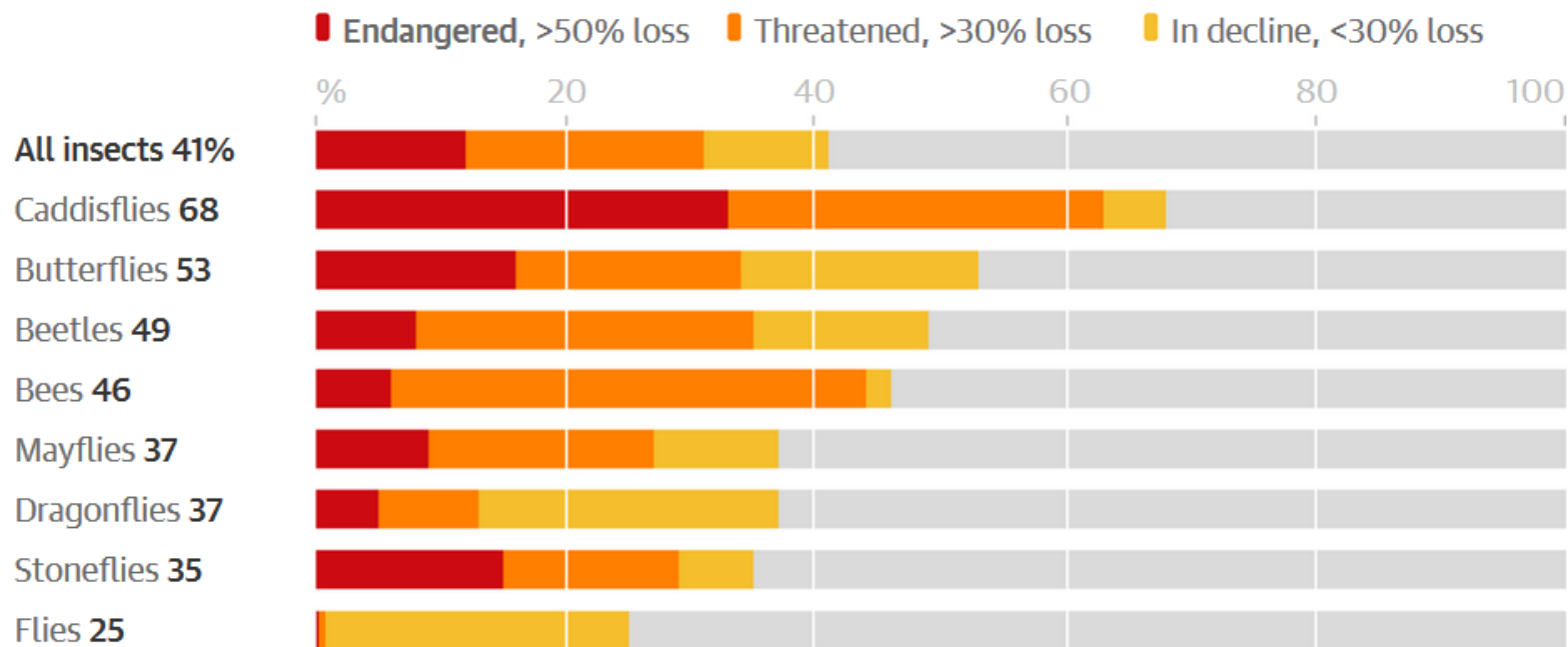
# Plummeting insect numbers 'threaten collapse of nature'



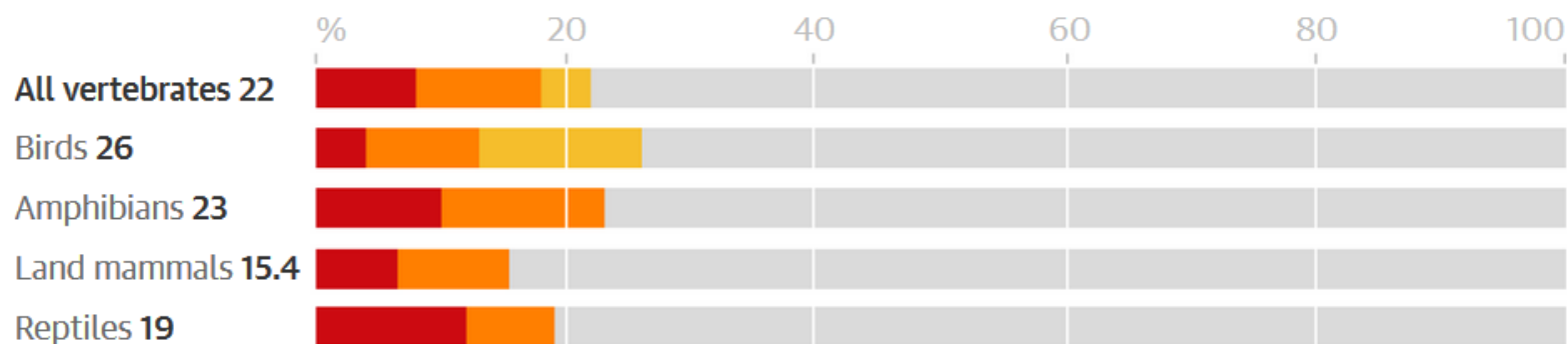
▲ The rate of insect extinction is eight times faster than that of mammals, birds and reptiles. Photograph: Courtesy of Entomologischer Verein Krefeld

**Exclusive: Insects could vanish within a century at current rate of decline, says global review**

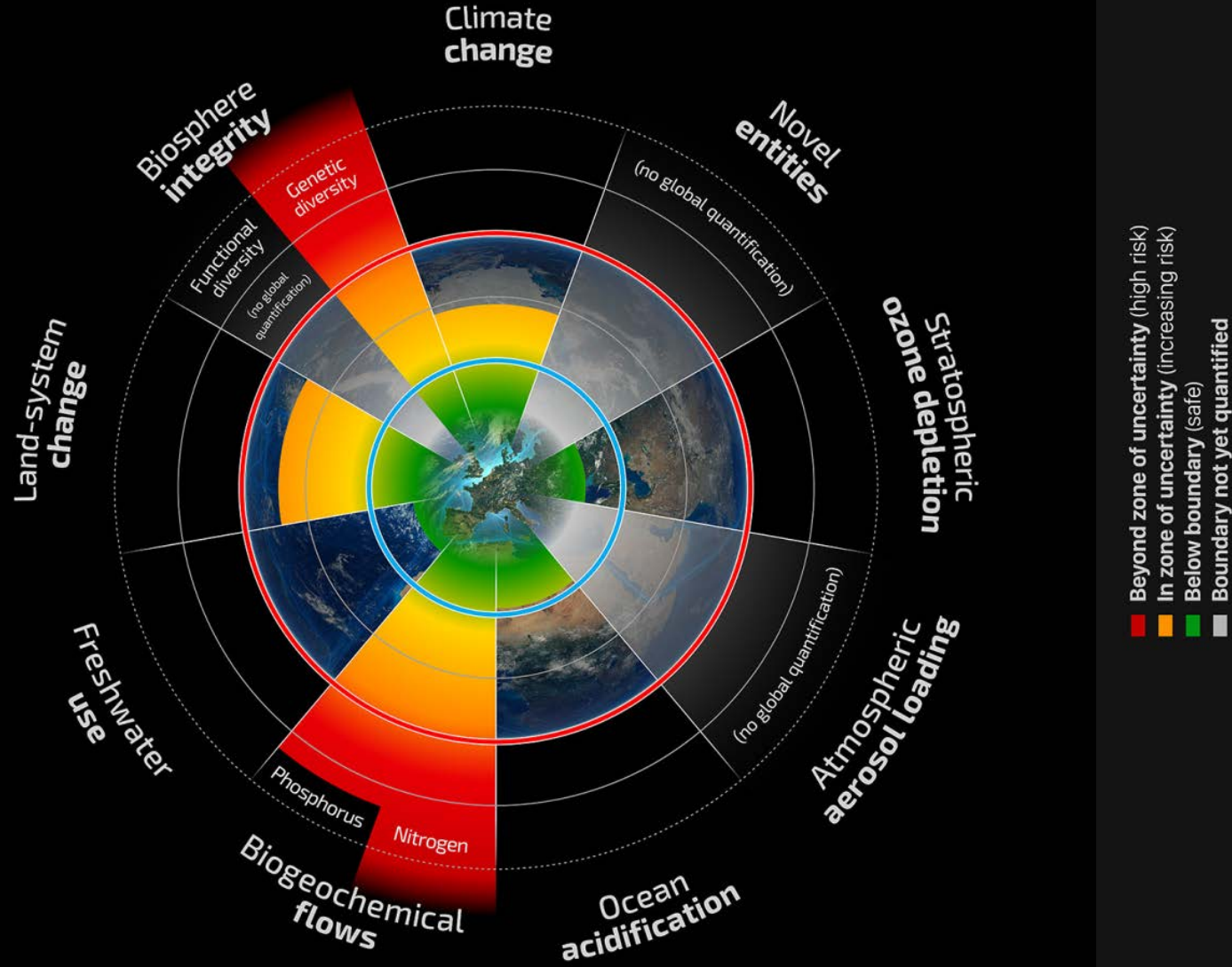
# 41% of global insect species have declined over the past decade ...



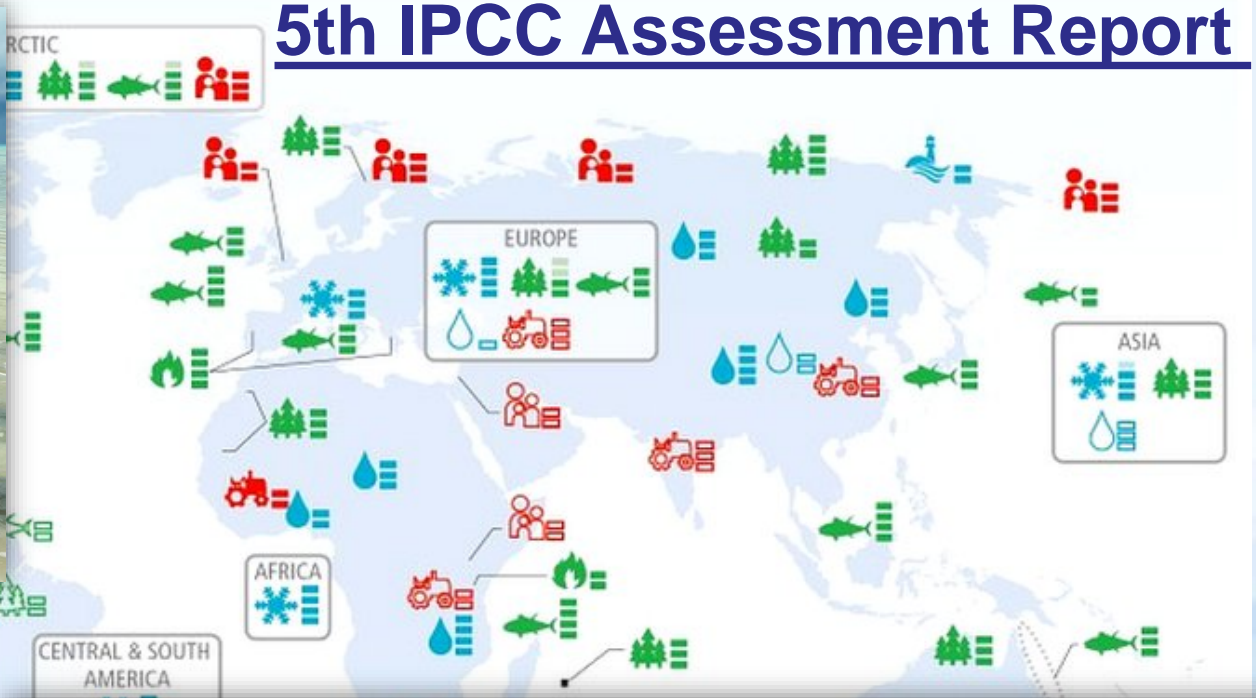
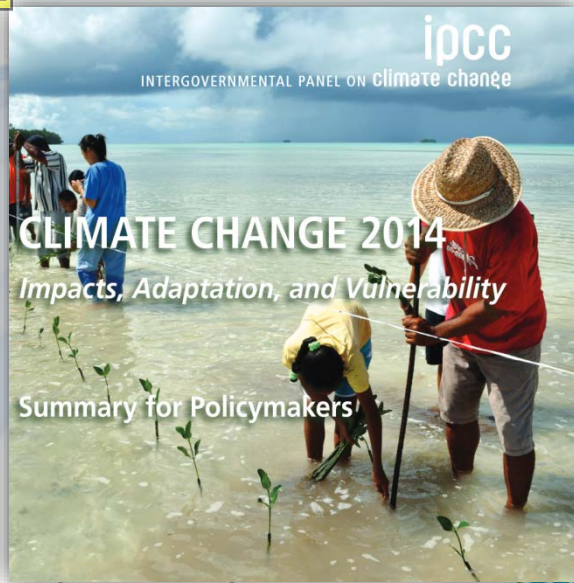
## ... compared with 22% of vertebrate species



# II. Globální klimatická změna

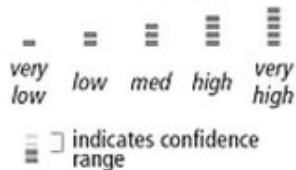


# 5th IPCC Assessment Report



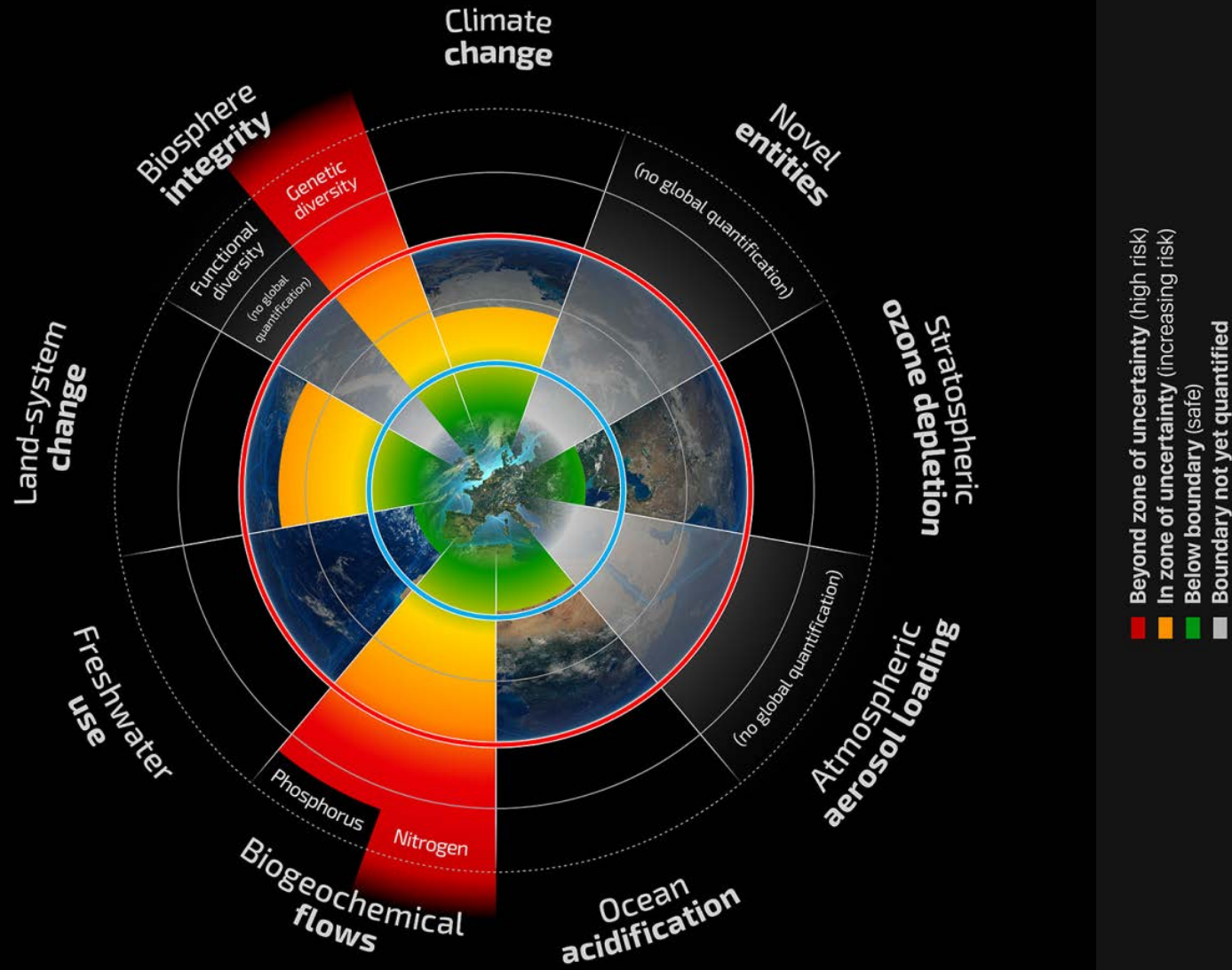
Europe	
Snow & Ice, Rivers & Lakes, Floods & Drought	<ul style="list-style-type: none"> <li>Retreat of Alpine, Scandinavian, and Icelandic glaciers (<i>high confidence</i>, major contribution from climate change)</li> <li>Increase in rock slope failures in western Alps (<i>medium confidence</i>, major contribution from climate change)</li> <li>Changed occurrence of extreme river discharges and floods (<i>very low confidence</i>, minor contribution from climate change)</li> </ul> <p>[18.3, 23.2-3, Tables 18-5 and 18-6; WGI AR5 4.3]</p>
Terrestrial Ecosystems	<ul style="list-style-type: none"> <li>Earlier greening, leaf emergence, and fruiting in temperate and boreal trees (<i>high confidence</i>, major contribution from climate change)</li> <li>Increased colonization of alien plant species in Europe, beyond a baseline of some invasion (<i>medium confidence</i>, major contribution from climate change)</li> <li>Earlier arrival of migratory birds in Europe since 1970 (<i>medium confidence</i>, major contribution from climate change)</li> <li>Upward shift in tree-line in Europe, beyond changes due to land use (<i>low confidence</i>, major contribution from climate change)</li> <li>Increasing burnt forest areas during recent decades in Portugal and Greece, beyond some increase due to land use (<i>high confidence</i>, major contribution from climate change)</li> </ul> <p>[4.3, 18.3, Tables 18-7 and 23-6]</p>
Coastal Erosion & Marine Ecosystems	<ul style="list-style-type: none"> <li>Northward distributional shifts of zooplankton, fishes, seabirds, and benthic invertebrates in northeast Atlantic (<i>high confidence</i>, major contribution from climate change)</li> <li>Northward and depth shift in distribution of many fish species across European seas (<i>medium confidence</i>, major contribution from climate change)</li> <li>Plankton phenology changes in northeast Atlantic (<i>medium confidence</i>, major contribution from climate change)</li> <li>Spread of warm water species into the Mediterranean, beyond changes due to invasive species and human impacts (<i>medium confidence</i>, major contribution from climate change)</li> </ul> <p>[6.3, 23.6, 30.5, Tables 6-2 and 18-8, Boxes 6-1 and CC-MB]</p>
Food Production & Livelihoods	<ul style="list-style-type: none"> <li>Shift from cold-related mortality to heat-related mortality in England and Wales, beyond changes due to exposure and health care (<i>low confidence</i>, major contribution from climate change)</li> <li>Impacts on livelihoods of Sámi people in northern Europe, beyond effects of economic and sociopolitical changes (<i>medium confidence</i>, major contribution from climate change)</li> <li>Stagnation of wheat yields in some countries in recent decades, despite improved technology (<i>medium confidence</i>, minor contribution from climate change)</li> <li>Positive yield impacts for some crops mainly in northern Europe, beyond increase due to improved technology (<i>medium confidence</i>, minor contribution from climate change)</li> <li>Spread of bluetongue virus in sheep and of ticks across parts of Europe (<i>medium confidence</i>, minor contribution from climate change)</li> </ul> <p>[18.4, 23.4-5, Table 18-9, Figure 7-2]</p>

## Confidence in attribution to climate change

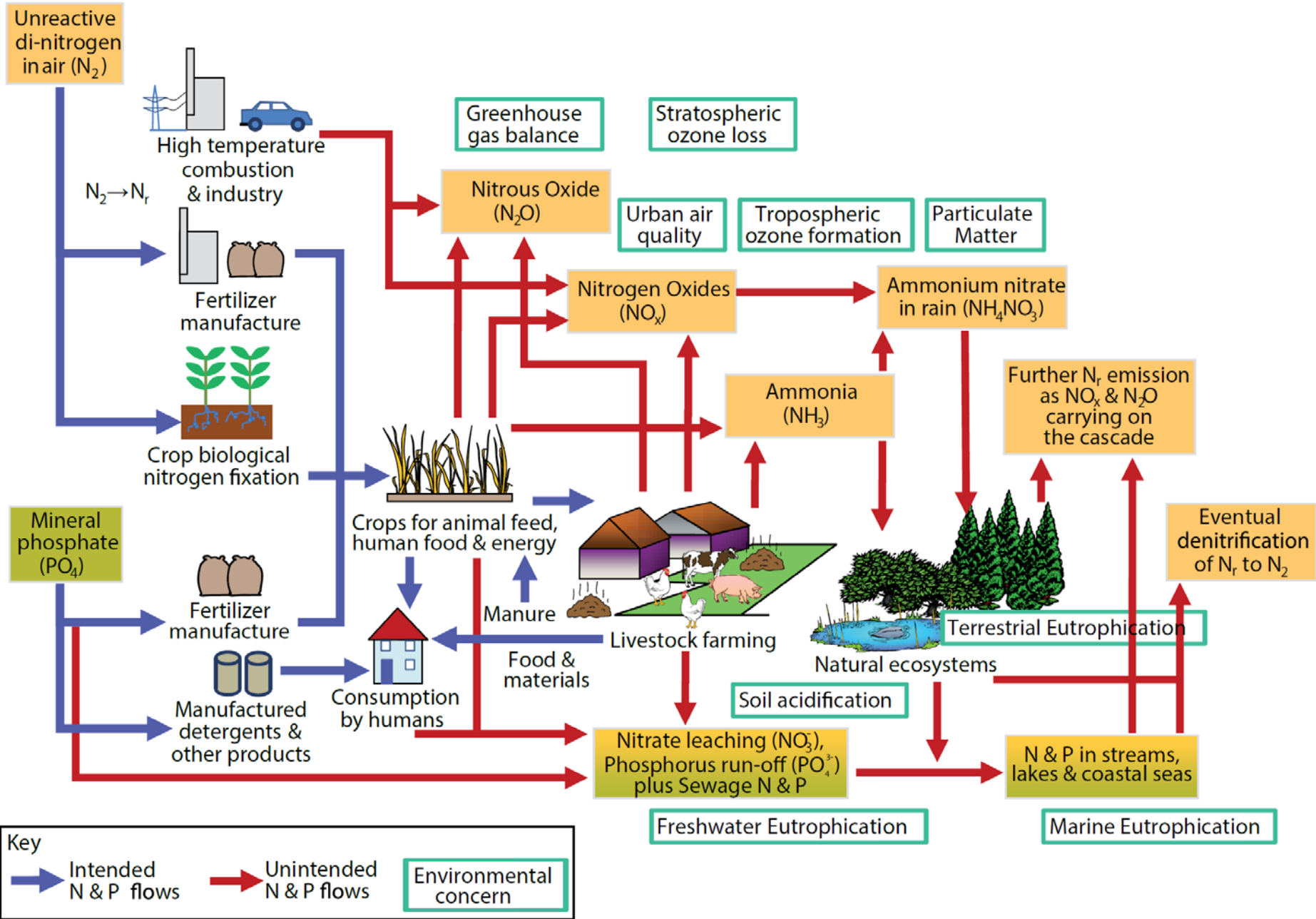


Filled symbols = Major contribution of climate change

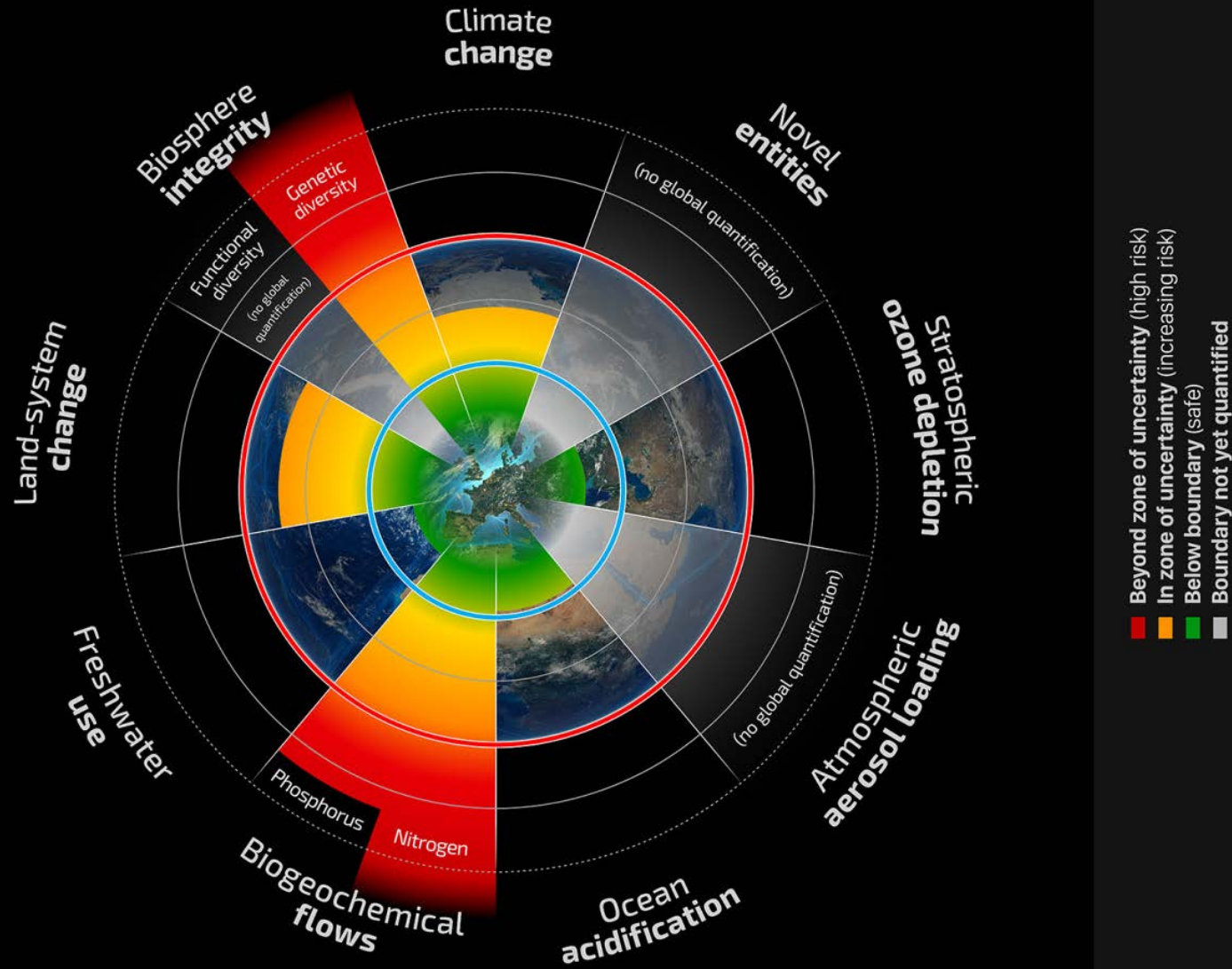
# III. Biogeochemické toky P a N



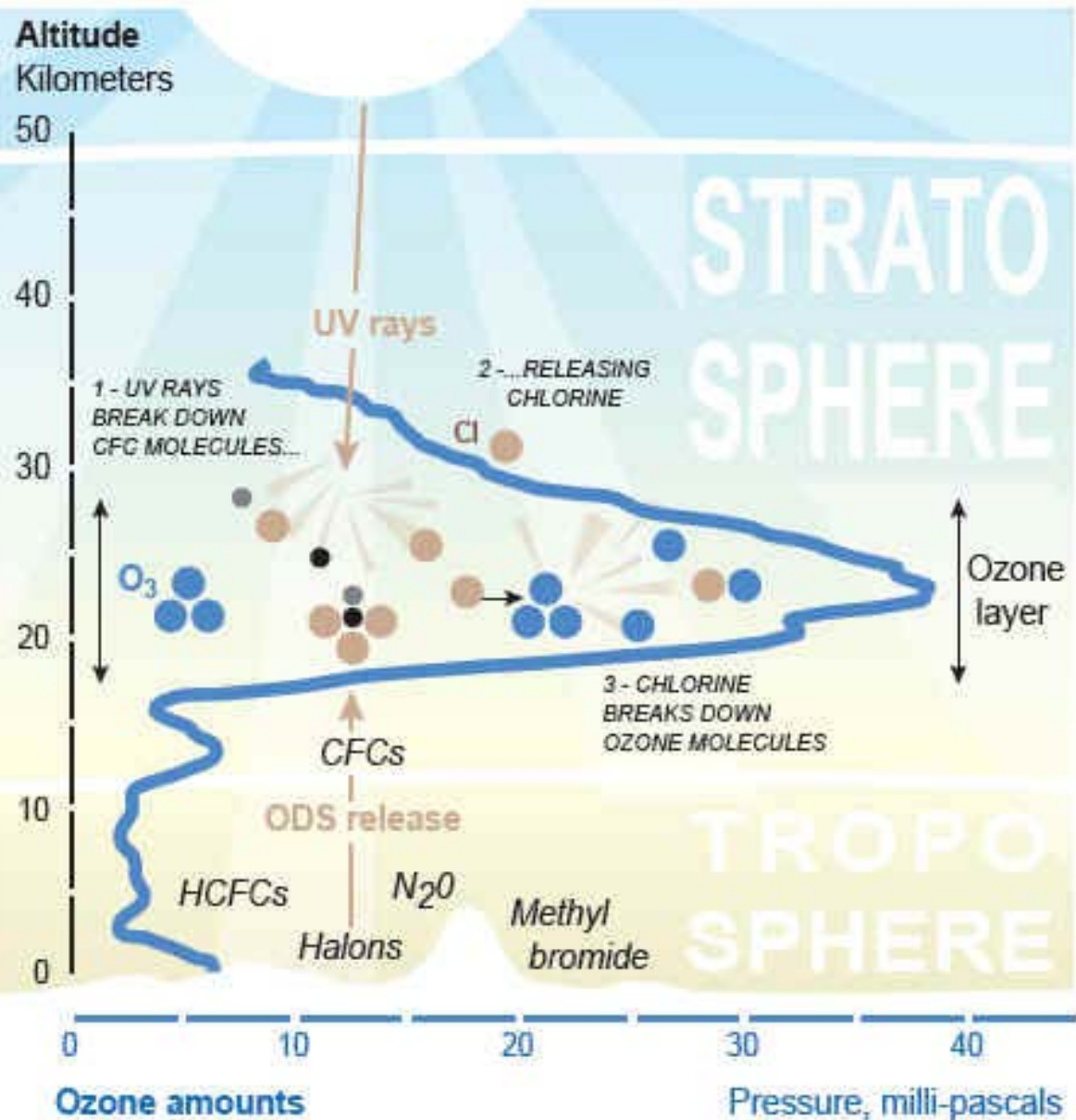
# Simplified view of the nitrogen cascade



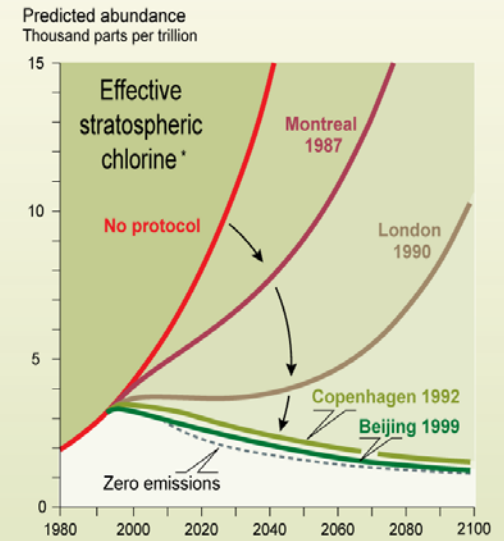
# IV. Úbytek stratosférického ozónu



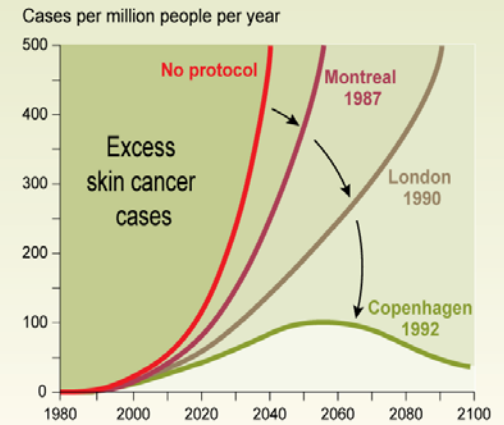
# CHEMICAL OZONE DESTRUCTION PROCESS IN THE STRATOSPHERE



## THE EFFECTS OF THE MONTREAL PROTOCOL AMENDMENTS AND THEIR PHASE-OUT SCHEDULES



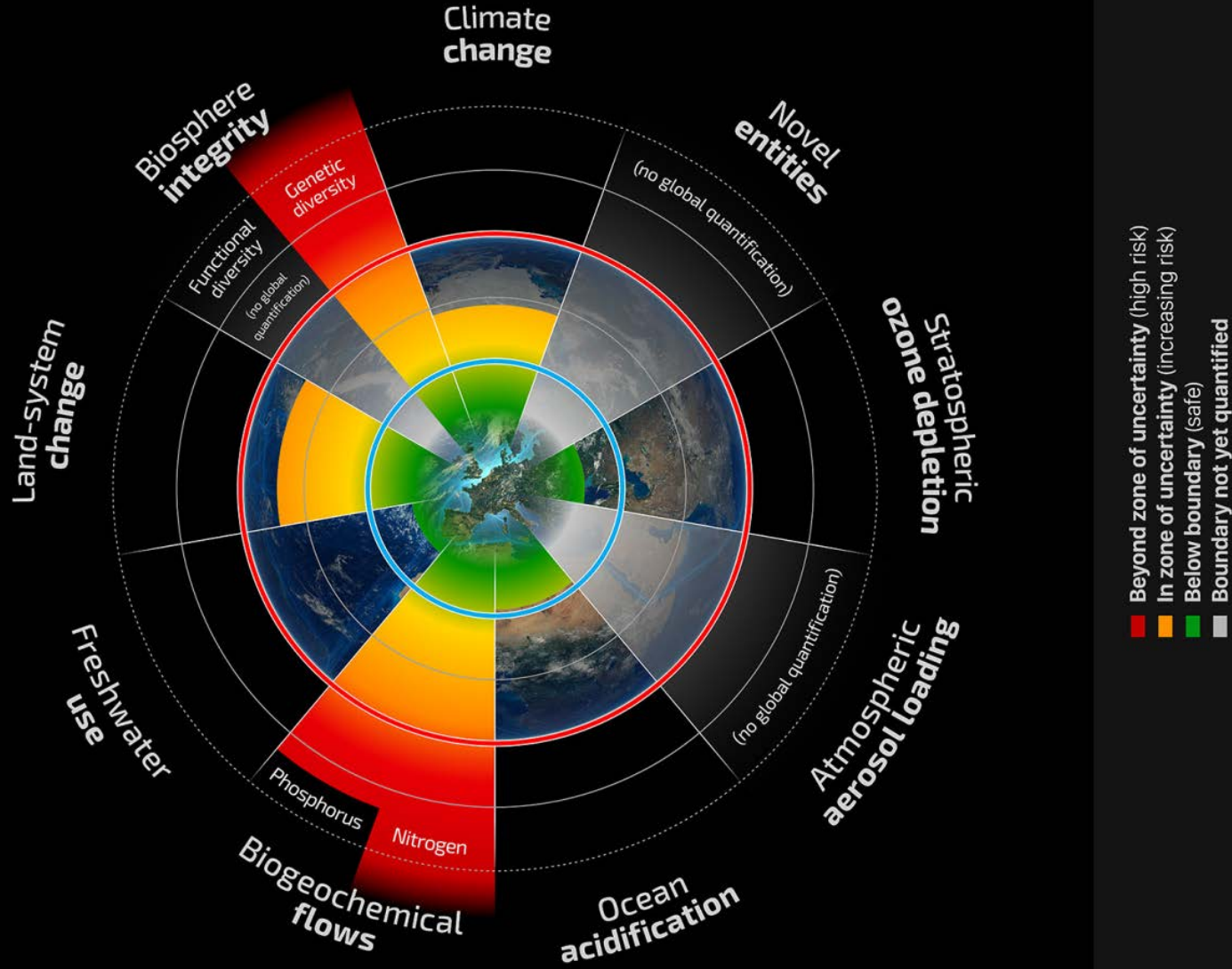
\* Chlorine and bromine are the molecules responsible for ozone depletion. "Effective chlorine" is a way to measure the destructive potential of all ODS gases emitted in the stratosphere.



Source: *Twenty Questions and Answers about the Ozone Layer: 2006 Update*, Lead Author: D.W. Fahey, Panel Review Meeting for the 2006 ozone assessment.



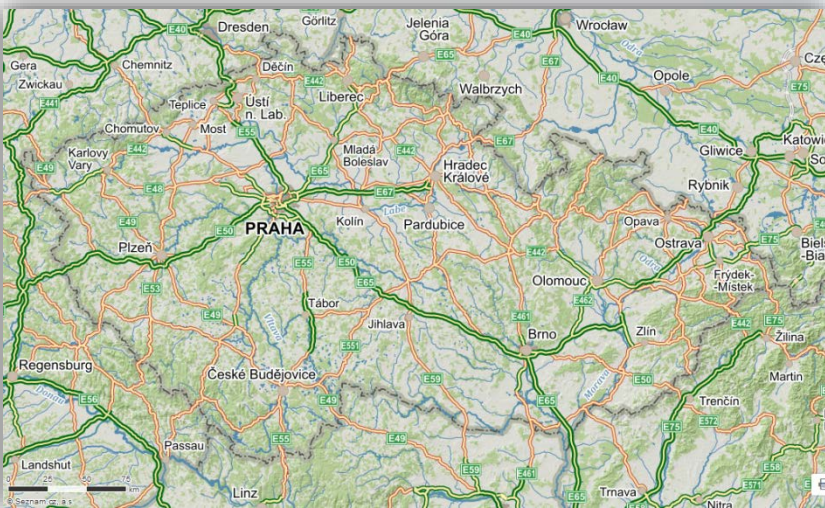
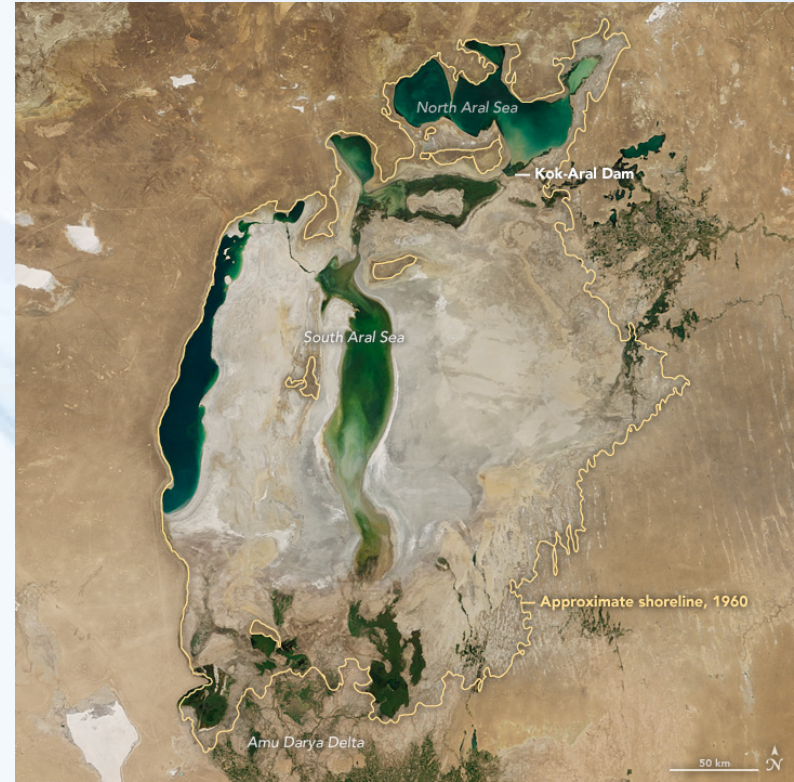
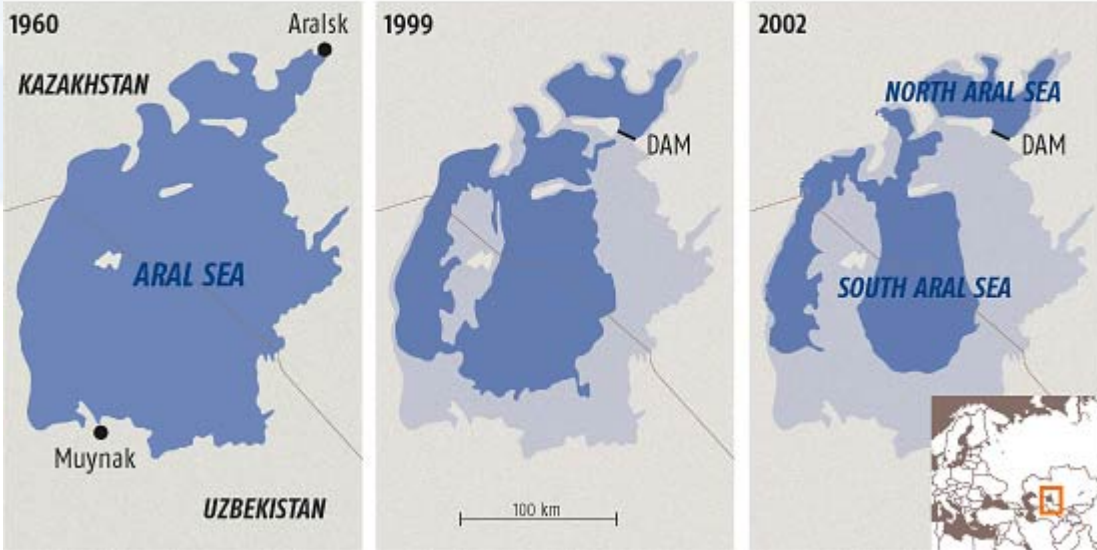
# V. Globální spotřeba vody



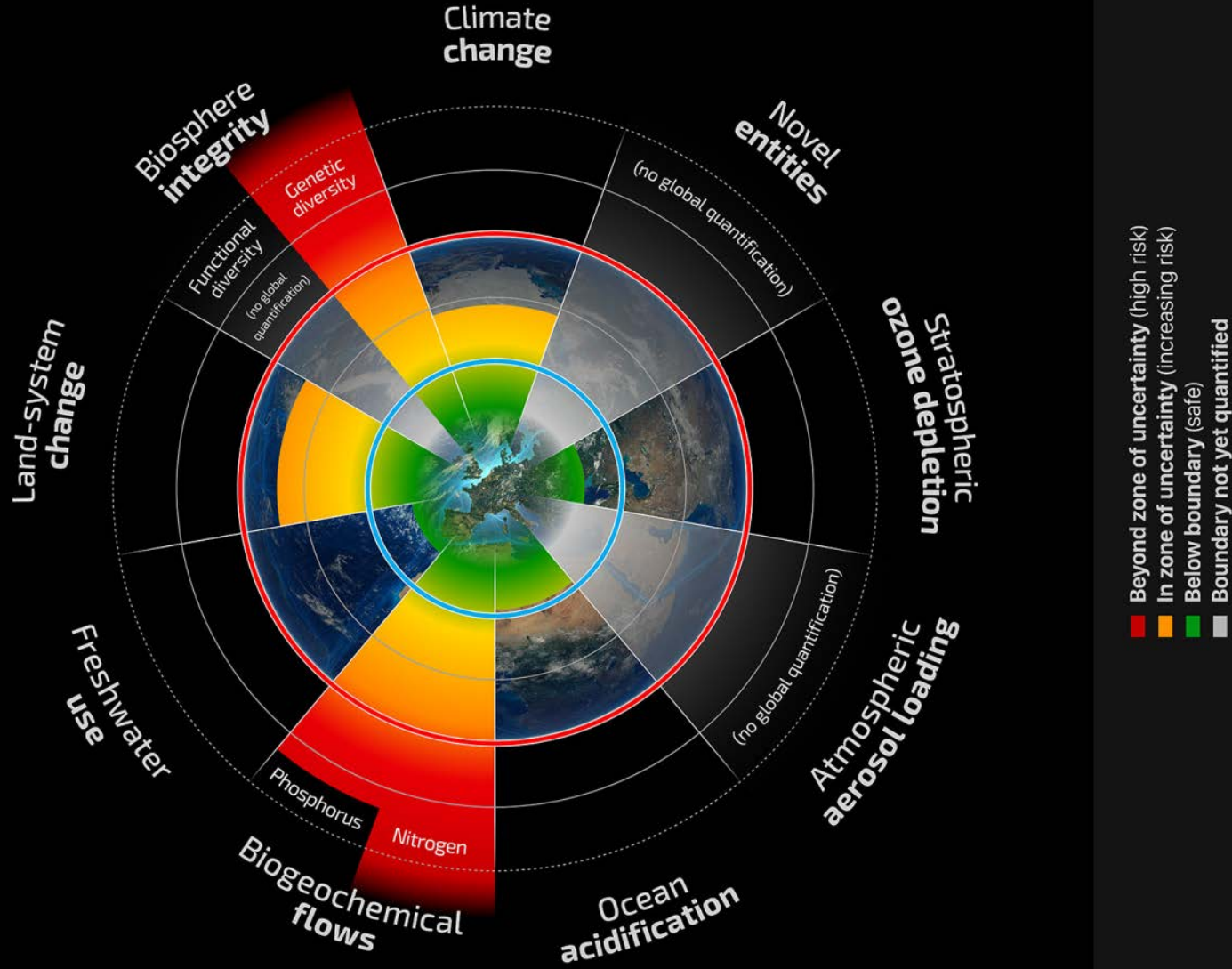
# Aralské Jezero

## THE SHRINKING SEA

The changed shape of the Aral Sea since 1960

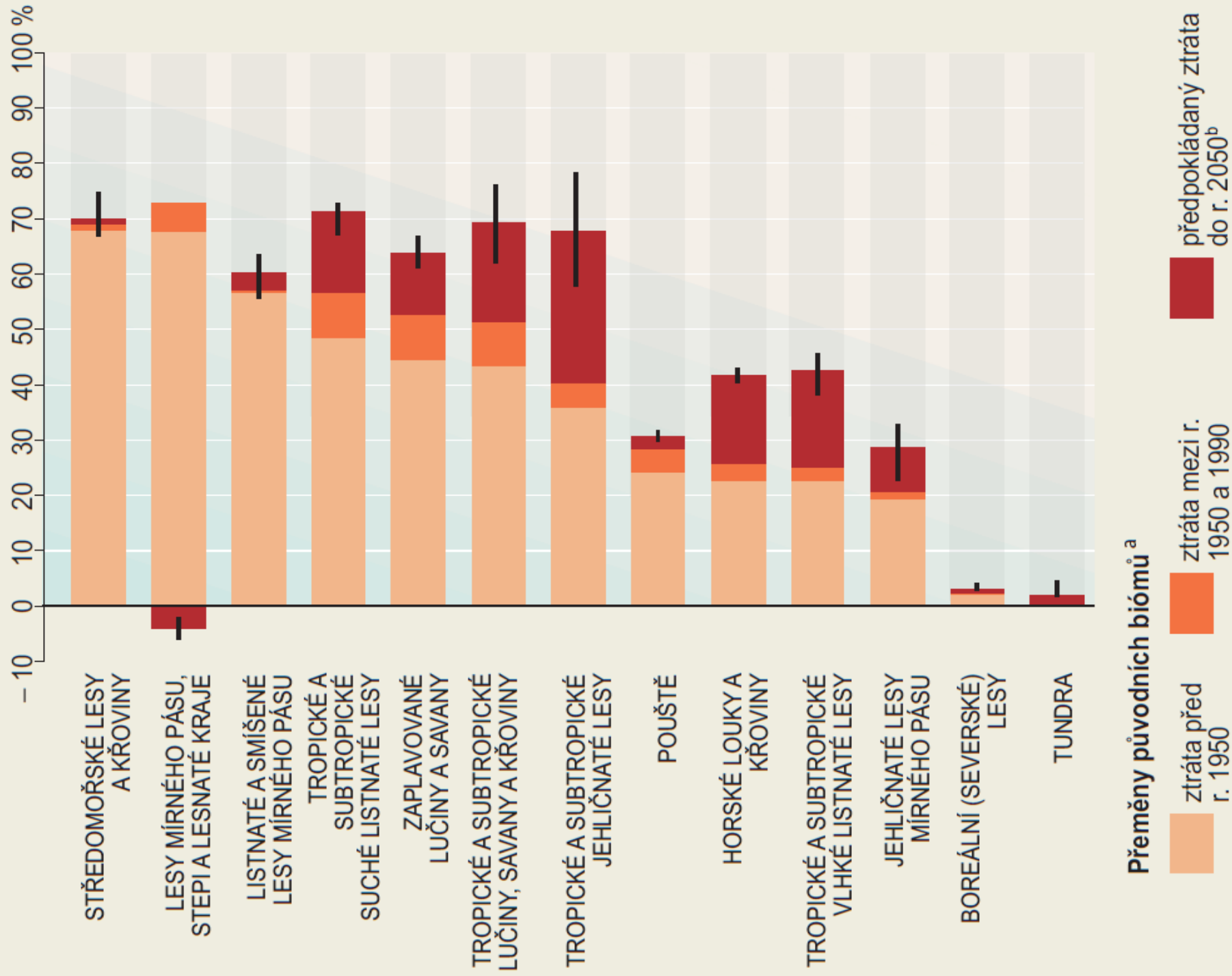


# VI. Změna využívání krajiny

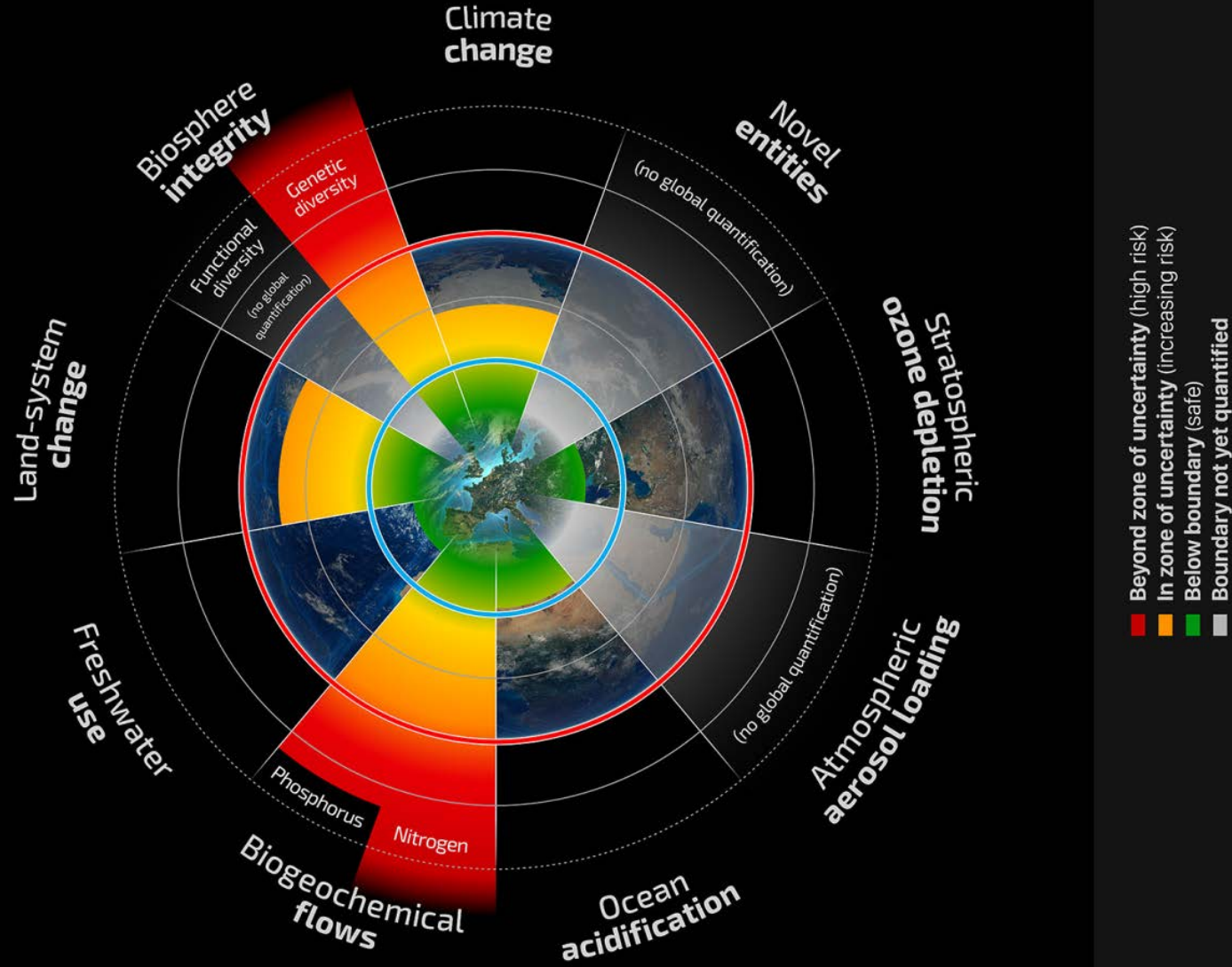




## Zlomek potenciálně přetvořeného území



# VII. Atmosférické aerosoly

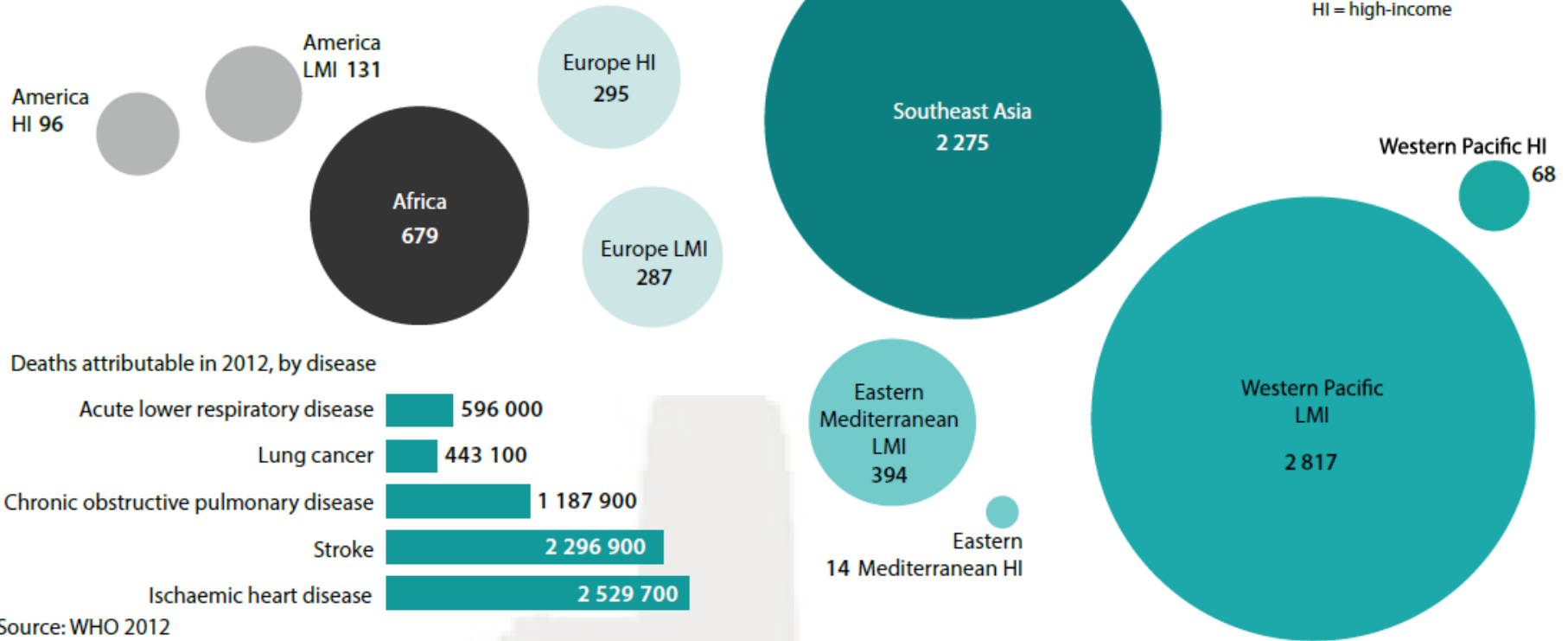


# UNEP Year Book 2014 emerging issues update

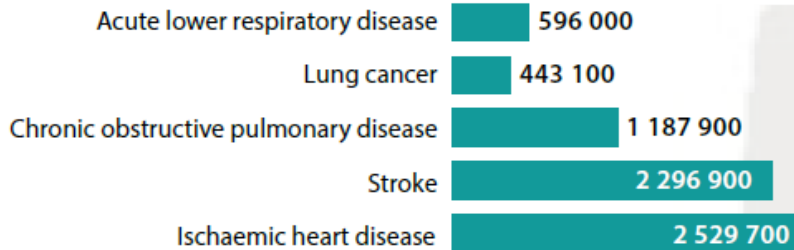
## Air Pollution: World's Worst Environmental Health Risk

### Choking to death

Deaths attributable to the joint effects of household and ambient air pollution in 2012, by region ('000)

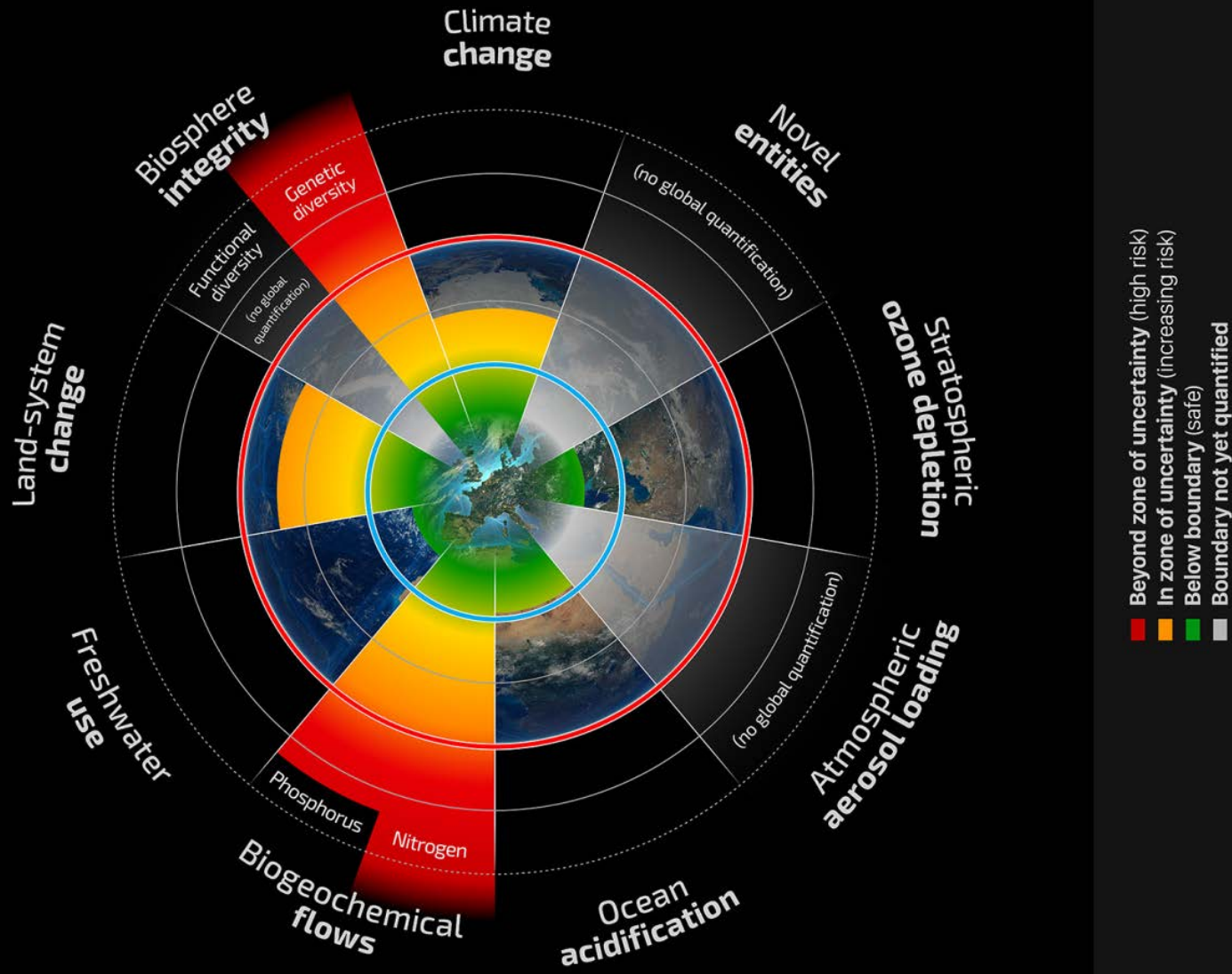


Deaths attributable in 2012, by disease



Source: WHO 2012

# VIII. Novosti



Source: Steffen et al. Planetary Boundaries: Guiding human development on a changing planet, *Science*, 16 January 2015.  
Design: Globalia

organic pollutants, radioactive materials  
nanomaterials, and micro-plastics





# Marks of the Anthropocene: 7 signs we have made our own epoch



Even if [humanity is long gone](#) in tens of millions of years, there will still be a clear sign of us and the way we lived left preserved in our planet's geological record.

There is now overwhelming evidence that our impact on Earth constitutes its own distinct geological epoch, dating from the middle of the 20th century. Here are the seven signs that will clearly identify the [Anthropocene epoch](#) for future geologists.

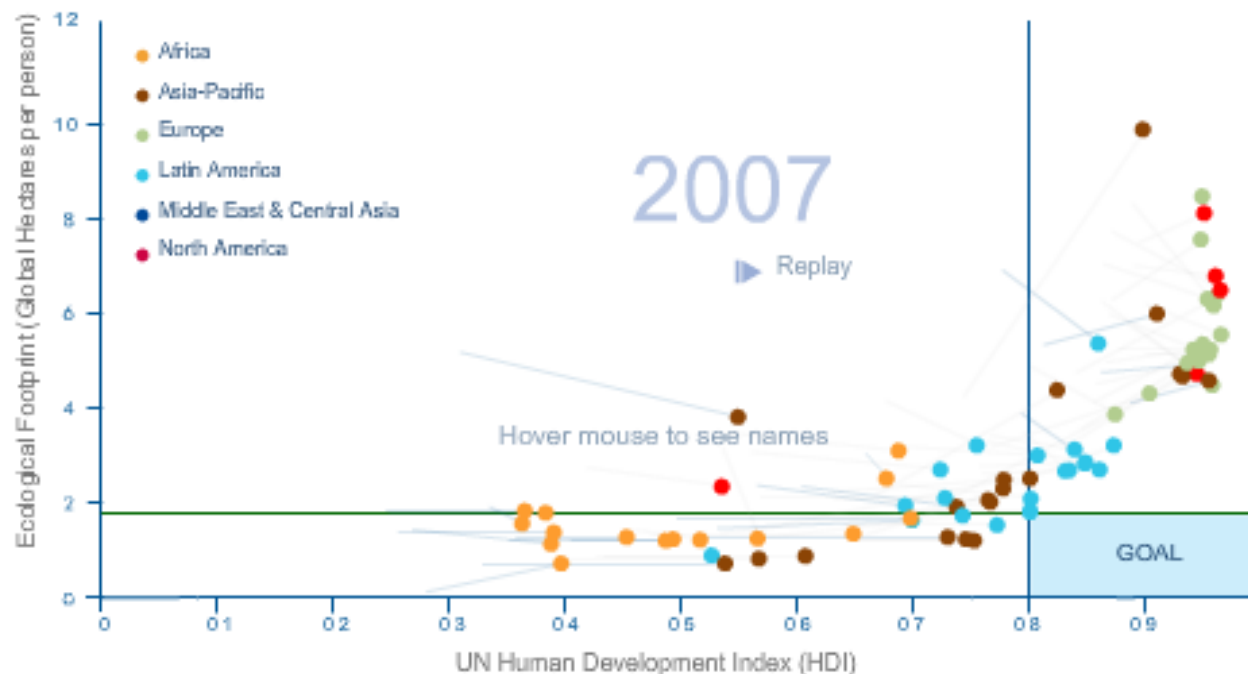
Proč k takovým změnám ŽP dochází,  
když si je nepřejeme?



# Ekonomický x sociální x environmentální rozvoj

## SUSTAINABLE DEVELOPMENT: 1980-2007

Human Development Index and Ecological Footprint of Nations



# Is positive thinking the way to save the planet?

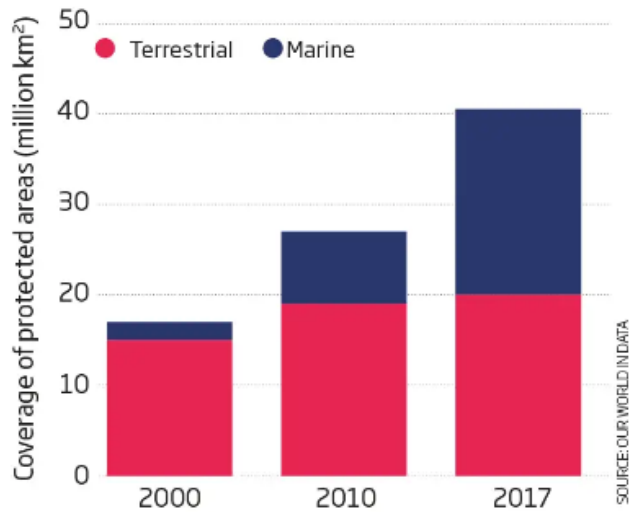
Move over doom and gloom, there is a new environmental movement in town. Earth optimists say focusing on small successes is the way forward



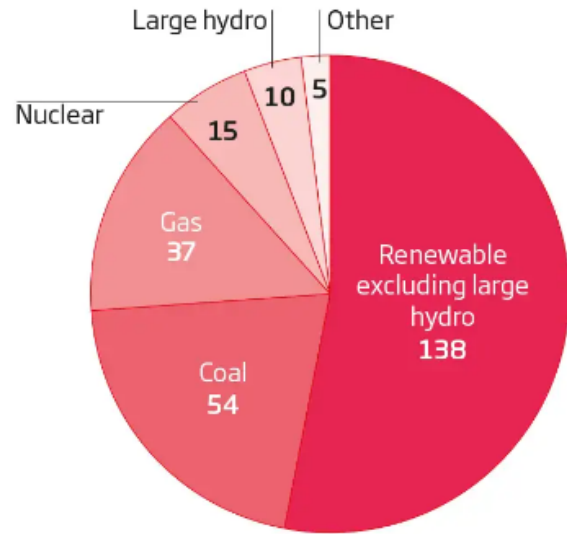


# Reasons to be hopeful...

The extent of protected areas is increasing, particularly in the oceans

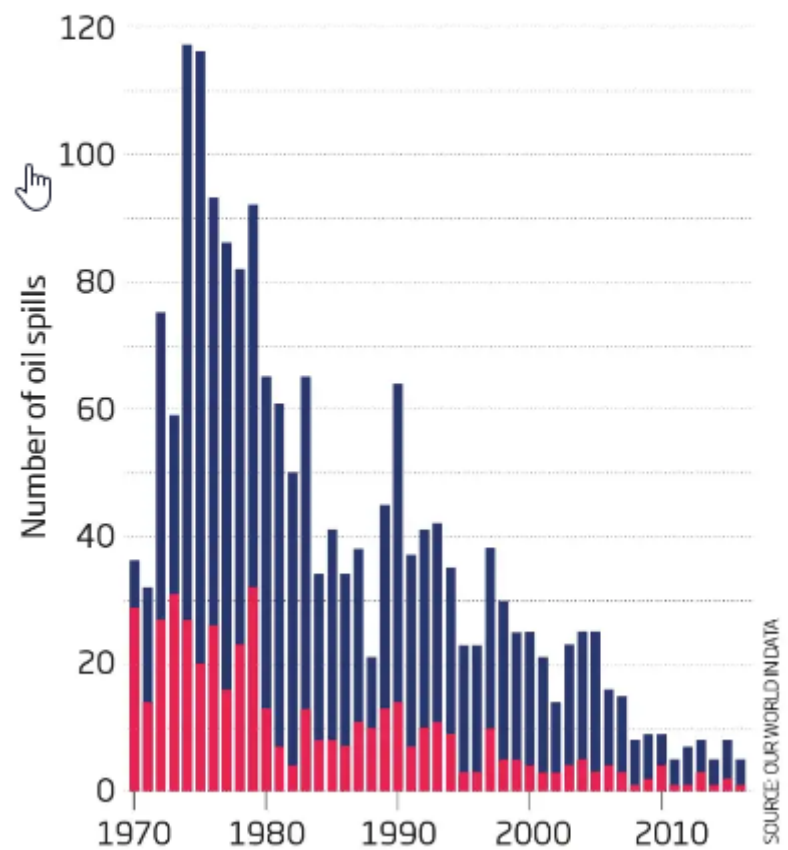


In 2016, for the second year in a row, renewables accounted for more than half of the new power capacity added globally (in gigawatts)



The number of oil spills has dropped markedly in recent decades

Oil spills ● 7 - 700 tonnes ● >700 tonnes



# It looks like an oxymoron, but Earth optimism is worth a try

Decades of environmental doom-mongering have fallen on deaf ears. Maybe a new environmental campaign with a message of hope is just what we need



