Appendix: Some important facts (Draft Translation)

1. The global mean temperature has already risen by 1 °C (relative to 1850–1900) (IPCC 2018, S.6 A1). Half of the rise has occurred during the last 30 years (NASA 2018; IPCC AR5 Synthesis Report SPM).

2. The years 2015, 2016, 2017, and 2018 were, globally, the warmest years in the modern record (NASA 2019).

3. The temperature rise is almost entirely due to human-made greenhouse gas emissions (US Global Change Research Program 2017, S. 14, Fig. ES.2; IPCC AR5 Synthesis Report SPM).

4. Already the current temperature rise increases the probability of extreme weather conditions in several regions of the globe, such as strong precipitation and heatwaves, leading to elevated rates of regional droughts, floods and forest fires (z. B. IPCC2012, Nat. Acad. Sci., Eng. & Med. 2016, IPCC 2018).

5. Global warming is a risk factor for human health (Watts et al. 2015, Watts et al. 2018). Besides the above-mentioned direct consequences, indirect consequences include lack of food security or the spread of pathogens and disease carriers.

6. If humanity fails to limit global warming to 1.5 °C as envisaged by the Paris Agreement, additional severe consequences must be expected for humanity and nature at large in many parts of the world (IPCC 2018).

7. In order restrict warming to the 1,5 °C limit with high probability, net emissions of greenhouse gases (in particular CO2) must be swiftly reduced and must, at the global level, reach zero within the next 20–30 years (IPCC 2018).

8. Instead, CO2-emissions continue to rise. Given the policy proposals currently on the table, global warming is likely to cross 3 °C by the end of the century and will increase afterwards due to continued emissions and positive feedback dynamics (https://climateactiontracker.org/global/temperatures/).

9. Based on current emissions, the remaining CO2-budget left for reaching the 1,5 °C goal will last for about 10 years. For the 2 °C goal, the budget is likely to last for about 25–30 years (MCC 2018, IPCC 2018).

10. Afterwards, humanity lives on a “CO2-overdraft-loan”: any emitted greenhouse gases have to be removed later from the atmosphere with tremendous efforts (z. B. Rogelj et al. 2018; Gasser et al 2015). Today's young people are already supposed to pay off this loan. If this fails, the following generations will suffer from the severe consequences of global warming.

11. Rising temperatures increase the probability of crossing climatic tipping points in the earth system dynamics, i.e., positive feedback loops will become more likely (Schellnhuber et al. 2016, Steffen et al. 2018). This would result in a situation, were returning to current temperature regime becomes unrealistic for future generations.

12. Oceans are currently absorbing around 90 % of the additional heat. They have furthermore absorbed about 30 % of the CO2 emitted so far. Consequences are rising sea levels, melting of sea ice, acidification and dissolved-oxygen depletion in the

oceans. Meeting the goals set by the Paris Agreement is essential to protect humanity and nature, and to mitigate the loss of marine biodiversity and ecosystems, specifically the currently endangered coral communities (IPCC 2018).

13. The human basis of life is threatened in several areas by the crossing of ”planetary boundaries”. As of 2015, two boundaries are exceeded with a degree of uncertainty (climate and land use change) and two further boundaries are critically exceeded: The destruction of genetic variability (biodiversity) and the phosphorus and nitrogen biogeochemical cycles (Steffen et al. 2015; Sachverständigenrat für Umweltfragen 2016).

14.We presently face the largest mass-extinction event since the era of the dinosaurs (Barnosky et al. 2011). Global extinction rates are 100 to 1000 times faster as compared to before humanity exerted its influence (Ceballos et al. 2015, Pimm et al. 2014). The past 500 years saw the extinction of more than 300 land-dwelling vertebrate species (Dirzo et al. 2014); the abundance of investigated vertebrate species has dropped on average by around 60 % from 1970 to 2014 (WWF 2018).

15. Causes for biodiversity loss are on the one hand habitat destruction by agriculture, deforestation, as well as land consumption by settlements and roads. On the other hand, invasive species play a role, as well as depletion due to over-collection, over-fishing and over-hunting (Hoffmann et al. 2010).

16. Global warming adds to this: with unimproved CO2 emissions, half of the plant and animal species of the Amazon basin or the Galapagos islands, for example, may have vanished by 2100 (Warren et al. 2018). Similarly, global warming is the major threat for the survival of coral reefs (Hughes et al. 2017, 2018).

17. The loss of agricultural areas and soil fertility, as well as the irreversible destruction of biodiversity and ecosystems threaten the basis of life and limit the options of current and future generations (IPBES 2018a & b, Secretariat CBD 2014, Willett et al. 2019, https://www.weltagrarbericht.de/, https://www.isric.org/isric-reports).

18. Insufficient protection of soil, ocean, fresh-water resources and biodiversity acts as a risk multiplier in the face of global warming (Johnstone & Mazo 2011). It increases the risk that water shortage and famine in many countries cause or aggravate social and military conflicts, and contribute to the migration of larger human populations (Levy, Sidel & Patz 2017, World Bank Group 2018, Solow 2013).

19. A sustainable diet with reduced meat, fish and milk consumption, as well as a reorientation of agricultural methods to resource-saving food production are necessary for the protection of land and marine ecosystems and the stabilization of climate change (Springmann et al. 2018).

20.Meat production produces less than one fifth of the calories used worldwide on more than four fifths of the agricultural area (Poor & Nemecek 2018), and emits a significant proportion of greenhouse gases (FAO

2013). Since the agricultural area includes permanent pastures and meadows as well as croplands, and most some of the former cannot be converted to cropland, another comparison is also illustrative:

More than one third of the global cereal harvest is used currently as animal feed

(FAO 2017, Data for 2013).

21. A transition to increased direct consumption of plant-based foods reduces the need for cropland, reduces greenhouse gas emissions and has additional health benefits (Springmann et al. 2016).

22. Direct government subsidies for fossil-based industries amount to more than 100 billion US dollar per year (Jakob et al. 2015). Taking social and environmental costs (in particular health costs, but also air and water pollution) into account, global post-tax subsidies for fossil fuels are significantly higher. According to experts of the International Monetary Fund (IMF) they amount to about USD 5 trillion per year – that is 6.5% of global GDP (2014) (Coady et al. 2017).

23. According to the polluter pays principle, the cost of climate damages should be attributed to the burning of fossil fuels. One possible approach is the introduction of CO2-prices. As long as a sufficient supply of low-cost renewable energies is not achieved, the resulting financial burden will need to be distributed in a socially responsible way. This can be organised in a socially responsible way. Examples are direct transfers or tax reductions for particularly affected households or lump-sum payments for citizens (Klenert et al. 2018).

24. Based on already established sustainable energy technologies, a strong reduction in costs and an increase in production capacities is possible. This renders a change from burning fossils to an energy system fully based on renewable energy financially feasible and creates new economic possibilities (Nykvist & Nilsson 2015, Creutzig et al. 2017, Jacobson et al. 2018, Teske et al. 2018, Breyer et al. 2018, Löffler et al. 2017, Pursiheimo et al. 2019).

References

Albrecht, S. & Engel, A. (eds.) 2009. Weltagrar-bericht Synthesebericht. Hamburg University Press, Verlag der Staats- und Universitätsbibliothek Hamburg, Carl von Ossietzky. https://www.weltagrarbericht.de/fileadmin/files/weltagrarbericht/IAASTDBerichte/IAASTDSyntheseDeutsch.pdf (siehe auch https://www.weltagrarbericht.de).

BAFU 2018. Klimapolitik der Schweiz. Umsetzung des Abkommens von Paris. Bundesamt für Umwelt, Bern, https://www.bafu.admin.ch/bafu/de/home/themen/klima/publikationen-studien/publikationen/klimapolitik-der-schweiz.html, abgerufen am 11.3.2019.

Barnosky, A.D., Matzke, N., Tomiya, S., Wogan, G.O.U., et al. 2011. Has the Earth's sixth mass extinction already arrived? Nature 471: 51-57, https://doi.org/10.1038/nature09678.

Breyer, C., Bogdanov, D., Aghahosseini, A., Gulagi, A., Child, M., Oyewo, A. S. et al. 2018. Solar photovoltaics demand for the global energy transition in the power sector. Progress in Photovoltaics: Research and Applications 26: 505–523, https://doi.org/10.1002/pip.2950.

CCCA 2018. Stellungnahme zum Konsultationsent-wurf des Nationalen Energie- und Klimaplans (NEKP), 6. Dez. 2018, https://wegcwww.uni-graz.at/publ/downloads/CCCA_NKK-Wiss_Stellungnahme-NEKP_6Dez2018.pdf.

Ceballos, G., Ehrlich, P.R., Barnosky, Anthony D. et al. 2015. Accelerated modern human–induced species losses: Entering the sixth mass extinction. Science Advances 1: e1400253, https://doi.org/10.1126/sciadv.1400253.

Coady, D., Parry, I., Sears, L. & Shang, B. 2017. How large are global fossil fuel subsidies? World Development 91: 11–27, https://doi.org/10.1016/j.worlddev.2016.10.004.

Creutzig, F., Agoston, P., Goldschmidt, J. C., Lude-rer, G., Nemet, G. & Pietzcker, R. C. 2017. The underestimated potential of solar energy to mitigate climate change. Nature Energy 2: 17140.

Dirzo, R., Young, H.S., Galetti, M., Ceballos, G., Isaac, N.J.B. & Collen, B. 2014. Defaunation in the Anthropocene. Science 345: 401-406, https://doi.org/10.1126/science.1251817.

EFI (Expertenkommission Forschung und Innovation) 2019. Gutachten 2019. https://www.e-fi.de/fileadmin/Gutachten_2019/EFI_Gutachten_2019.pdf.

FAO 2017. Food Balance Sheets, data for 2013 (dataset update 2017-12-12, accessed 2019-03-04). http://www.fao.org/faostat/en/#data/FBS.

Figueres, C, Schellnhuber, H.J., Whiteman, G., Rockström, J., Hobley, A., Rahmstorf, S. 2017. Three years to safeguard our climate. Nature 546: 595-595.

FAO (Food and Agriculture Organization of the United Nations) 2013. Tackling climate change through livestock: a global assessment of emissions and mitigation opportunities. Rome: Food and Agriculture Organization of the United Nations.

Gasser, T., Guivarch, C., Tachiiri, K., Jones, C. D. & Ciais, P. 2015. Negative emissions physically needed to keep global warming below 2 °C. Nature Communications 6: 7958, https://doi.org/10.1038/ncomms8958.

German Council for Sustainable Development 2018. The 2018 peer review on the German Sustainability Strategy. Berlin, May 2018, https://www.nachhaltigkeitsrat.de/wp-content/uploads/2018/05/2018_Peer_Review_of_German_Sustainability_Strategy_BITV.pdf.

Global Carbon Project 2019. Global Carbon Budget presentation. Zugriff am 27.2.2019. https://www.globalcarbonproject.org/carbonbudget/18/presentation.htm.

Hoffmann, M., Hilton-Taylor,C., Angulo, A., et al. 2010. The Impact of conservation on the status of the world's vertebrates. Science 330: 1503-1509, https://doi.org/10-1126/science.1194442.

Hughes, T.P., Barnes, M., Bellwood, D.R., Cinner, J.E., Cumming, J.S., Jackson, J.B.C. et al. 2017. Coral reefs in the Anthropocene. Nature 546:82-90, https://doi.org/10.1038/nature22901.

Hughes, T.P., Anderson, K.D., Connolly, S.R., Scott Heron, S., Kerry, J.T., Lough, J.M., et al. 2018. Spatial and temporal patterns of mass

bleaching of corals in the Anthropocene. Science 359, 80–83, https://doi.org/10.1126/science.aan8048.

IPBES 2018. The IPBES regional assessment report on biodiversity and ecosystem services for Africa, https://www.ipbes.net/system/tdf/africa_assessment_report_20181219_0.pdf?file=1&type=node&id=29243.

IPBES 2018a. The assessment report on land de-gradation and restoration. Bonn. https://www.ipbes.net/system/tdf/2018_ldr_full_report_book_v4_pages.pdf?file=1&type=node&id=29395.

IPBES 2018b. The IPBES regional assessment re-port on biodiversity and ecosystem services for Europe and Central Asia of the Inter-governmental Science-Policy Platform on Bio-diversity and Ecosystem Services. Bonn. https://www.ipbes.net/system/tdf/2018_eca_full_report_book_v5_pages_0.pdf?file=1&type=node&id=29180.

IPCC (Intergovernmental Panel on Climate Change) 2012. Managing the risks of extreme events and disasters to advance climate change adaptation: special report of the Intergovernmental Panel on Climate Change. (Eds: Field, C. et al.). Cambridge University Press.

IPCC (Intergovernmental Panel on Climate Change) 2018. Summary for policymakers. In: Masson-Delmotte, V., Zhai, P., Pörtner, et al. (eds.). Global warming of 1.5 °C – An IPCC Special Report on the impacts of global warming of 1.5 °C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. IPCC with World Meteorological Organisation (WMO), and United Nations Environmental Program (UNEP): Geneva, Switzerlan,. https://www.ipcc.ch/report/sr15.

Jacobson, M.Z., Delucchi, M.A., Cameron, M.A. & Mathiesen, B.V. 2018. Matching demand with supply at low cost in 139 countries among 20 world regions with 100% intermittent wind, water, and sunlight (WWS) for all purposes. Renewable Energy 123: 236–248, https://doi.org/10.1016/j.renene.2018.02.009.

Jakob, M., Chen, C., Fuss, S., Marxen, A. & Eden-hofer, O. 2015. Development incentives for fossil fuel subsidy reform. Nature Climate Change 5: 709-712.

Johnstone, S. & Mazo, J. 2011. Global warming and the Arab spring. Survival 53: 11–17, https://doi.org/10.1080/00396338.2011.571006.

Kemfert, C. 2017. Germany must go back to its low-carbon future. Nature 549: 26–27, https://doi.org/10.1038/549026a.

Klenert, D., Mattauch, L., Combet, E., Edenhofer, O., Hepburn, C., Rafaty, R. et al. 2018. Making carbon pricing work for citizens. Nature Climate Change 8: 669–677, https://doi.org/10.1038/s41558-018-0201-2.

Klima-Allianz Deutschland 2018. Wann, wenn nicht jetzt: Das Maßnahmenprogramm Klimaschutz 2030 der deutschen Zivilgesellschaft, https://www.klima-allianz.de/fileadmin/user_upload/Maßnahmenprogramm2030_web.pdf.

Levy, B. S., Sidel, V. W. & Patz, J.A. 2017. Climate change and collective violence. Annual Review of Public Health 38: 241–257, https://doi.org/10.1146/annurev-publhealth-031816-044232.

Löffler, K., Hainsch, K., Burandt, T., Oei, P.-Y., Kem-fert, C. & von Hirschhausen, C. 2017. Desig-ning a model for the global energy system—GENeSYS-MOD: An Application of the Open-Source Energy Modeling System (OSeMOSYS). Energies 10: 1468, https://doi.org/10.3390/en10101468.

MCC (Mercator Research Institute on Global Commons and Climate Change) 2018. So schnell tickt die CO2-Uhr. Zugriff am 27.2.2019. https://www.mcc-berlin.net/de/forschung/co2-budget.html.

McIntyre, B.D., Herren, H.R., Wakhungu, J., Watson, R.T. (eds.) 2009. Synthesis report. A synthesis of the global and sub-global IAASTD reports. International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD). https://www.weltagrarbericht.de/fileadmin/files/weltagrarbericht/IAASTDBerichte/SynthesisReport.pdf.

NASA 2018. GISS Global Temperature (zitiert wird die Erwärmung der 10-Jahres Periode 2009-2018 gegenüber 1979-1988). NASA Goddard

Institute for Space Studies. https://data.giss.nasa.gov/gistemp/tabledata_v3/ZonAnn.Ts+dSST.txt.

NASA 2019. 2018 fourth warmest year in continued warming trend, according to NASA, NOAA (News, February 6, 2019). https://climate.nasa.gov/news/2841/2018-fourth-warmest-year-in-continued-warming-trend-according-to-nasa-noaa/.

Nat. Acad. Sci., Eng. & Med. (U.S.) (Hrsg.) 2016. Attribution of extreme weather events in the context of climate change. Washington, DC: The National Academies Press.

Nykvist, B. & Nilsson, M. 2015. Rapidly falling costs of battery packs for electric vehicles. Nature Climate Change 5: 329.

Pimm et al. 2014. The biodiversity of species and their rates of extinction, distribution, and pro-tection. Science 344: 1246752, https://doi.org/10.1126/science.1246752.

Poore, J. & Nemecek, T. 2018. Reducing food's en-vironmental impacts through producers and consumers. Science 360: 987–992, https://doi.org/10.1126/science.aaq0216.

Pursiheimo, E., Holttinen, H. & Koljonen, T. 2019. Inter-sectoral effects of high renewable energy share in global energy system. Rene-wable Energy 136: 1119–1129, https://doi.org/10.1016/j.renene.2018.09.082.

Rat für Nachhaltige Entwicklung 2018a. Gegen den Stillstand im Gesamtsystem. Berlin 22. Juni 2018, https://www.nachhaltigkeitsrat.de/wp-content/uploads/2018/06/20180622_RNE_Stellungnahme_Konsultation.pdf.

Rat für Nachhaltige Entwicklung 2018b. Nachhal-tigkeitsforum mit Elefant vom 26.06.2018, https://www.nachhaltigkeitsrat.de/aktuelles/nachhaltigkeitsforum-mit-elefant/, abgerufen am 26.02.2019.

Ripple, W.J., Wolf, C., Newsome, T.M., Galetti, M., Alamgir, M., et al. 2017. World scientists' warning to humanity: a second notice. BioScience 67: 1026–1028, https://doi.org/10.1093/biosci/bix125.

Rockström, J.; Gaffney, O.; Rogelj, J.; Meinshausen, M.; Nakicenovic, N.; Schellnhuber, H.J. 2017. A roadmap for rapid decarbonization. Science 355: 1269-1271, https://doi.org/10.1126/science.aah3443.

Rogelj, J.; Popp, A.; Calvin, K.V.; Luderer, G.; Em-merling, J.; Gernaat, D. et al. 2018. Scenarios towards limiting global mean temperature in-crease below 1.5 °C. Nature Climate Change 8: 325–332, https://doi.org/10.1038/s41558-018-0091-3.

Sachverständigenrat für Umweltfragen 2016. Um-weltgutachten 2016. Impulse für eine integra-tive Umweltpolitik. Berlin: Erich Schmidt Ver-lag.

Sachverständigenrat für Umweltfragen 2018. Um-weltziele der Nachhaltigkeitsstrategie drohen weitgehend verfehlt zu werden. Berlin: SRU,

https://www.umweltrat.de/SharedDocs/Kurzmeldungen/DE/2016_2020/2018_06_Umweltziele_Nachhaltigkeitsstrategie.html?nn=9724688.

Schellnhuber, H.J., Rahmstorf, S., Winkelmann, R. 2016. Why the right climate target was agreed in Paris. Nature Climate Change 6: 649-653, https://doi.org/10.1038/nclimate3013.

Schleicher, S. & Kirchengast, G. 2019. Monitoring der österreichischen Treibhausgasemissionen bezüglich der im Klimaschutzgesetz festgelegten Höchstmengen, Mar. 2019; https://wegcwww.uni-graz.at/publ/downloads/KSG-Monitoring-Nowcasting_Memo-WEGC_v3-5Mar2019.pdf.

Schweizer Parlament 2018. Nationalrat lehnt ver-wässertes CO2-Gesetz ab, https://www.parlament.ch/de/services/news/Seiten/2018/20181211115905786194158159041_bsd067.aspx (abgerufen 28.2.2019).

Secretariat of the CBD (Convention on Biological Diversity) 2014. Global biodiversity outlook 4: a mid-term assessment of progress towards the implementation of the strategic plan for biodiversity 2011-2020. Montreal, Quebec, Ca-nada: Secretariat for the Convention on Biolo-gical Diversity.

Seppelt, R., Manceur, A.M., Liu, J., Fenichel, E.P. & Klotz, S. 2014. Synchronized peak-rate years of global resources use. Ecology and Society 19: 50, https://doi.org/10.5751/ES-07039-190450.

Smith, S. J., Edmonds, J., Hartin, C. A., Mundra, A. & Calvin, K. 2015. Near-term acceleration in the rate of temperature change. Nature Climate Change 5: 333–336, https://doi.org/10.1038/nclimate2552.

Solow, A. R. 2013. Global warming: A call for peace on climate and conflict. Nature 497: 179–180, https://doi.org/10.1038/497179a.

Springmann, M., Godfray, H.C.J., Rayner, M. & Scarborough, P 2016. Analysis and valuation of the health and climate change cobenefits of dietary change. Proc. Nat. Acad. Sci. 113: 4146-4151, https://doi.org/10.1073/pnas.1523119113.

Springmann, M., Clark, M., Mason-D'Croz, D., Wiebe, K., Bodirsky, B. L., Lassaletta, L. et al. 2018. Options for keeping the food system within environmental limits. Nature 562: 519–525, https://doi.org/10.1038/s41586-018-0594-0.

Steffen, W., Leinfelder, R., Zalasiewicz, J., Waters, C. N., Williams, M., Summerhayes, C. et al. 2016. Stratigraphic and earth system approaches to defining the anthropocene. Earth's Future, 4: 324- 345, https://doi.org/10.1002/2016EF000379.

Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M. et al. 2015. Pla-netary boundaries: Guiding human develop-ment on a changing planet. Science 347: 1259855, https://doi.org/10.1126/science.1259855.

Steffen, W., Rockström, J., Richardson, K., Lenton, T. M., Folke, C., Liverman, D. et al. 2018. Trajectories of the Earth System in the Anthropocene. Proceedings of the National Academy of Sciences 115: 8252–8259, https://doi.org/10.1073/pnas.1810141115.

Teske, S., Pregger, T., Simon, S. & Naegler, T. 2018. High renewable energy penetration scenarios and their implications for urban energy and transport systems. Current Opinion in En-vironmental Sustainability 30: 89–102, https://doi.org/10.1016/j.cosust.2018.04.007.

U.S. Global Change Research Program 2017. Climate Science Special Report: Fourth Natio-nal Climate Assessment, Vol. I. U.S. Global Change Research Program, https://doi.org/10.7930/J0J964J6.

Umweltbundesamt 2018. Flächeninanspruch-nahme 2001-2017, Wien; http://www.umweltbundesamt.at/umweltsituation/raumordnung/rp_flaecheninanspruchnahme/.

UBA (Umweltbundesamt) 2019. Indikator: Emissio-nen von Treibhausgasen, https://www.umweltbundesamt.de/indikator-emission-von-treibhausgasen#textpart-1, Stand 25,01,2019, abgerufen am 26.02.2019.

UN FCCC (United Nations Framework Convention on Climate Change) 2015. Adoption of the Paris Agreement. Paris: Zugriff am 20.2.2019. https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf.

Warren et al. 2018. The implications of the United Nations Paris Agreement on Climate Change for Globally Significant Biodiversity Areas. Climatic Change 147: 395-409, https://doi.org/10.1007/s10584-018-2158-6.

Watts, N., Adger, W.N. Agnolucci, P., Blackstock, J., et al. 2015. Health and climate change: policy responses to protect public health. The Lancet 386: P1861-1914, https://doi.org/10.1016/S0140-6736(15)60854-6.

Watts, N., Amann, M., Arnell, N., Ayeb-Karlsson, S., et al. 2018. The 2018 report of the Lancet Countdown on health and climate change: shaping the health of nations for centuries to come. The Lancet 392: P2479-2514, https://doi.org/10.1016/S0140-6736(18)32594-7.

WBGU (Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen) 2011. Welt im Wandel: Gesellschaftsvertrag für eine Große Transformation. Hauptgutachten 2011. WBGU, Berlin. ISBN 978-3-936191-38-7, https://www.wbgu.de/fileadmin/user_upload/wbgu.de/templates/dateien/veroeffentlichungen/hauptgutachten/jg2011/wbgu_jg2011.pdf.

Wegener Center 2018. Stellungnahme zum Ent-wurf der Klima-und Energiestrategie (KES) für Österreich; Graz, April 2018, https://wegcwww.uni-graz.at/publ/downloads/Stellungnahme_KES_WegenerCenter.pdf.

Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S. et al. 2019. Food in the Anthropocene: the EAT–Lancet Commis-sion on healthy diets from sustainable food systems. The Lancet 393: 447–492, https://doi.org/10.1016/S0140-6736(18)31788-4.

World Bank Group. 2018. Groundswell: Preparing for internal climate migration. Washington D.C. Zugriff am 1.3.2018. https://openknowledge.worldbank.org/handle/10986/29461.

WWF 2018. Living Planet Report 2018: Aiming hig-her. Grooten, M. & Almond, R.E.A. (eds). WWF, Gland, Switzerland.

Germany: Sci4Future@gmail.com
Austria: info@ccca.ac.at
Switzerland: karin.ammon@scnat.ch