

OKP Newsletter

August 2021



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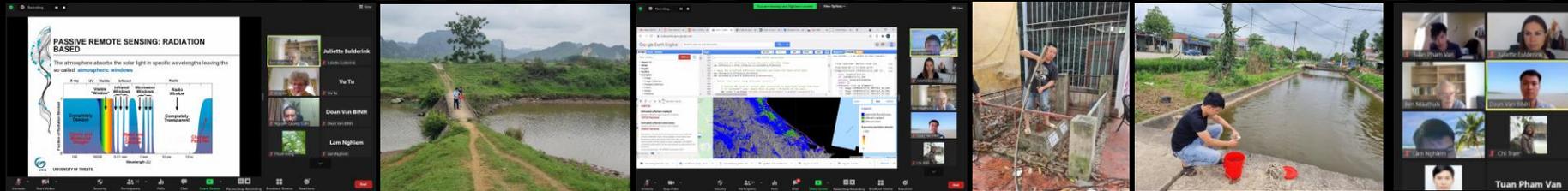
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'Code red for climate change'

August 2021, Delft

Human activity is changing the climate in unprecedented and sometimes irreversible ways, the major UN scientific report (IPCC) has said. The study, published earlier this month, warns of increasingly extreme heatwaves, droughts and flooding, and a key temperature limit being broken in just over a decade. And yet, 'we're not about to back down' is the cry heard across the world. The report "is a code red for humanity", says the UN chief, but it is not too late to take action. Climate change is and will remain an integral part of our OKP projects, as we aim to provide our partner countries a new generation that is well-prepared for (local) climate change impacts.

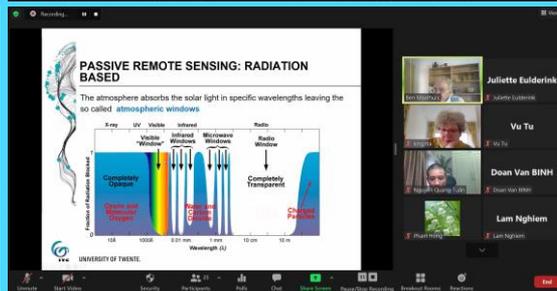
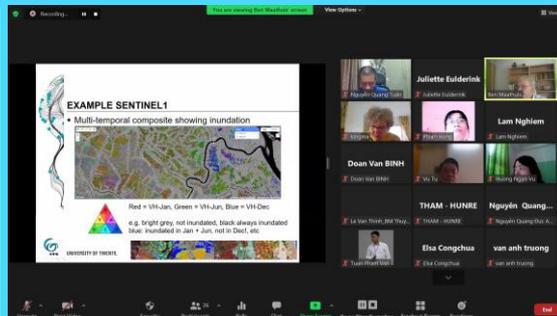
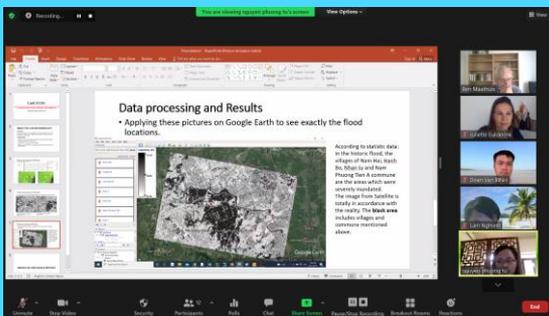
In this newsletter we share with you some exciting news and upcoming events, such as the Sustainable Delta Futures Event: '*Pathways to a Sustainable Water Future in Deltas*'. Pages 6 - 8 are all about the IPCC Sixth Assessment Report: what are the main results of the climate research conducted by almost 200 researchers in the past 7 years? It includes the regional analysis and projections specifically for (South-East) Asia. In the opportunities section you will find details about an international online event: *Advancing Science in South East Asia 2021*. Enjoy the read!



OKP Vietnam & Myanmar: News and (planned) activities

Online short course: Sentinel data for monitoring land & water resources

At the start of August, over 20 Vietnamese lecturers of both HUNRE and Thuyloi University joined the online short course on using Sentinel data for monitoring land and water resources in Vietnam. In a 5-day course taught by Dr. Ben Maathuis (ITC Twente), participants learned how to download and process Sentinel (S1, S2, S3, ..) data. The participants applied the knowledge to their own case study, ranging from flood detection in Thua Thien-Hue province to suspended sediment dynamics in the Mekong Delta estuaries. The course was concluded with an interactive session where participants presented the results of their own case study – a great success!



OKP Newsletter to become bimonthly

Please note that starting this month, our OKP newsletter will be sent out bi-monthly (every two months). This means the next issue will come out mid-October. If you have any questions, or suggestions for content, do not hesitate to contact us.

Delta Futures Lab: Cai River salt intrusion

On September 10th, the TU Delft MSc students who researched salt intrusion in the Cai River will present their results in a Delta Futures Lab Webinar. This webinar will be open to anyone interested (on Zoom). The invitation link will be shared soon – stay tuned!

You can find more information about collaboration on the TU Delft-Vietnam website: <https://www.tudelft.nl/citg/vietnam/> and on the TU Delft-Myanmar website: <https://www.tudelft.nl/myanmar/>

OKP Vietnam & Myanmar: News and (planned) activities

Fieldwork for groundwater recharge estimations in Red River delta

Prof. Pham Quy Nhan and Le Viet Hung from HUNRE, together with their student research team, performed fieldwork over the past few months. They did so across different locations in the Red River delta. The aim of the research is to use isotopic techniques to determine the groundwater recharge of the Quaternary aquifers in the Red River delta plain. Nice work!



Sustainable Delta Futures Event: Pathways to a Sustainable Water Future in Deltas

On Thursday 23rd September 2021 there will be an online knowledge exchange event to learn and discuss about challenges and opportunities for sustainable water futures for delta regions. Four projects from two continents and four different regions will be presented. Topics range from circular water use in urban and industrial settings to local capacity building and DIY methodologies. The event is hosted by TU Delft in collaboration with Wageningen University and Research. You can register [here](#) to get the Zoom link.



Khoa and Juliette to co-organise the next PIE Webinar

In November, the Platform for International Education (PIE) will organize another webinar, focusing on the future of equitable partnerships for knowledge exchange between the Netherlands and other countries. Thi Van Le Khoa and Juliette Eulderink will join the organisation team for the webinar and start preparations this month.

You can find more information about collaboration on the TU Delft-Vietnam website: <https://www.tudelft.nl/citg/vietnam/> and on the TU Delft-Myanmar website: <https://www.tudelft.nl/myanmar/>

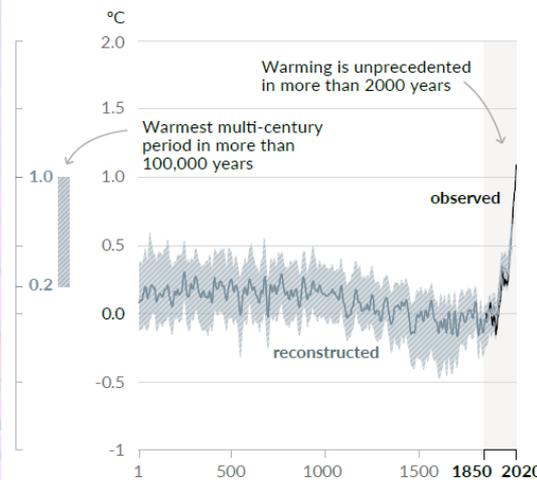
IPCC: Climate Change 2021

The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change. It was created to provide policymakers with scientific assessments on climate change, its implications and potential future risks, as well as to put forward adaptation and mitigation options. Their most recent report addresses the most up-to-date physical understanding of the climate system and climate change, bringing together the latest advances in climate science, and combining multiple lines of evidence from paleoclimate, observations, process understanding, and global and regional climate simulations. You can find the publication [here](#).

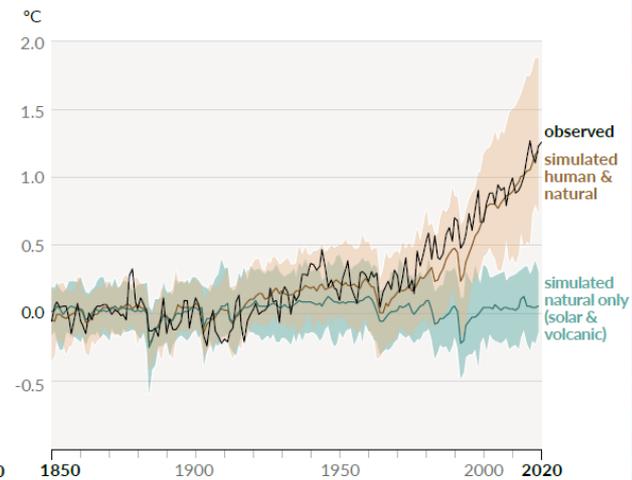
History of global temperature change
and causes of recent warming:

Changes in global surface temperature relative to 1850-1900

a) Change in global surface temperature (decadal average) as reconstructed (1-2000) and observed (1850-2020)



b) Change in global surface temperature (annual average) as observed and simulated using human & natural and only natural factors (both 1850-2020)



IPCC: regional impacts Asia

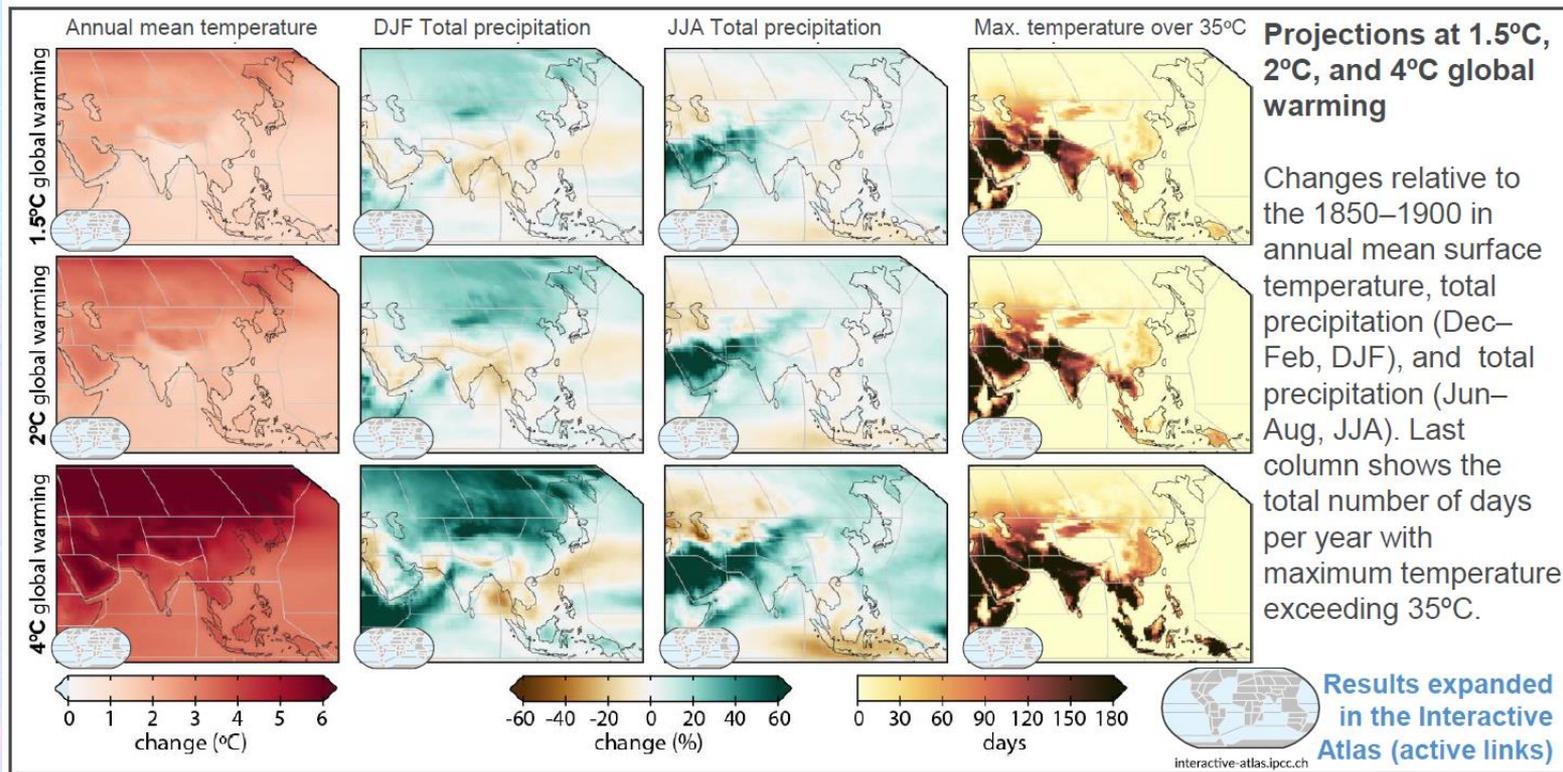
In **South-East Asia** it is expected that:

- Future warming will be slightly less than the global average.
- Observed mean rainfall trends are not spatially coherent or consistent across datasets and seasons. Rainfall will increase in northern parts and decrease in the Maritime Continent
- Compound impacts of climate change, land subsidence, and local human activities will lead to higher flood levels and prolonged inundation in the Mekong Delta.
- Although there has been no significant long-term trend in the overall number of tropical cyclones, fewer but more extreme tropical cyclones have affected the region.

Common regional changes

-  The **observed** mean surface temperature increase **has clearly emerged** out of the range of internal variability compared to 1850-1900. Heat extremes **have increased** while cold extremes **have decreased**, and these trends **will continue** over the coming decades (*high confidence*).
-  Marine heatwaves **will continue** to increase (*high confidence*).
-  Fire weather seasons **will lengthen** and intensify, particularly in North Asia regions (*medium confidence*).
-  Average and heavy precipitation **will increase** over much of Asia (*high to medium confidence*).
-  Mean surface wind speeds **have decreased** (*high confidence*) and will continue to **decrease** in central and northern parts of Asia (*medium confidence*).
-  Glaciers **are declining** and permafrost **is thawing**. Seasonal snow duration, glacial mass, and permafrost area **will decline** further by the mid-21st century (*high confidence*).
-  Glacier runoff in the Asian high mountains **will increase** up to mid-21st century (*medium confidence*), and subsequently runoff may decrease due to the loss of glacier storage.
-  Relative sea level around Asia **has increased** faster than global average, with coastal area loss and shoreline retreat. Regional-mean sea level **will continue** to rise (*high confidence*).

IPCC: regional impacts Asia (continued)



The full IPCC Climate Change report and the factsheet for Asia can be found here:

<https://www.ipcc.ch/report/ar6/wg1/>

Opportunities

Event: Advancing Science in South East Asia 2021

Dates: 25-29th October 2021

Key organisers: South East Asian Network for Open Science (SEANOS)
Indonesian Institute of Sciences (PDDI - LIPI)
International Science Council, Regional Office of Asia Pacific (ROAP)

Aim: The aim of this region wide web conference is to shape research across the South-East Asian region by equipping researchers across South East Asia with current practical knowledge from world leaders to realize their individual, institutional, and regional research potential for societal good. In particular, the event will be designed in such a way to remove as many barriers as possible in order that researchers across the region are able to join irrespective of cost, location, knowledge level, experience, and language barrier.

[Register here](#)

For questions or inquiries on contributing, please contact Dr. Sandersan Onie at s.onie@blackdog.org.au

