

PAGES SSC 2019 Meeting Minutes

26-27 March 2019, Addis Ababa, Ethiopia

PRESENT

SSC: Willy Tinner (WT, Co-chair), Mike Evans (MNE, Co-chair), Asfawossen Asrat (AA), Emilie Capron (EC), Cristiano Chiessi (CMC), Peter Gell (PG), Lindsey Gillson (LG), Darrell Kaufman (DK), Katrin Meissner (KM), Paul Valdes (PV), Blas Valero-Garces (BVG), Boris Vanniere (BV).

IPO: Marie-France Loutre (MFL), Sarah Eggleston (SSE), Angela Wade (AW).

Invited guests: Hannah Moersberger (HM, Future Earth), Stella Alexandroff (SJA, PAGES ECN).

ABSENT

SSC: Zhimin Jian (ZJ), Ed Brook (EB), Michal Kucera (MK).

1. Introduction and miscellaneous (MNE)

1.1 New to PAGES

MNE welcomed group and new participants. Everyone introduced themselves.

1.2 Approval of the Minutes from 2018 SSC meeting and outstanding actions

Decision: Unanimous approval.

1.3 Approval of the 2019 Agenda

Add Addendum items 1 and 2.

Decision: Unanimous approval.

2. IPO News and finances (MFL)

MFL welcomed new science officer SSE to the meeting. SSE replaces Lucien von Gunten.

PAGES has a new Finance Officer, Alexandra (Sandra) Gerber, replacing Brigitte Schneider.

Mention of DK as guest scientist at IPO in 2018.

PAGES moved office in November 2018 to the main building of University of Bern.

2.1 Funding overview

MFL explained Swiss Academy of Sciences (SCNAT) funding secured for four years. Strong request from SCNAT to find other supporters.

Uni of Bern hosts PAGES IPO and also assists with the accounting and IT.

A Future Earth grant also supports this meeting.

2.2 Budget overview 2019

Discussed 2019 budget and available funding for workshops.

Discussed the *Past Global Changes Magazine* – potential to only provide online copies, no printed copies. Still many subscribers who want to receive the hard copy (survey done in 2018).

Discussed how valuable the magazine is for the visibility of PAGES within the scientific community.

Discussed reducing the number of printed copies, printing locally, or charging a fee.

Action: MNE – PAGES vision – add this to the “enhancing PAGES visibility” discussions. (*done, 26.3.19*)

Action: IPO to email everyone who receives the hard copy and ask them to opt in?

2.3 Budget overview 2020

Short discussion about plans for 2020.

2.4 PAGES future funding

Discussed potential international funding possibilities, organizations, memberships, and effects on SSC numbers.

HM suggested contacting Future Earth about memberships, following the creation of a Future Earth society.

Action: MNE to contact Future Earth and follow up.

2.4.1 Additional funding

Discussed two submitted AccelNet (USA) proposals, LINKEDCOS and ARACNE. Deadline 28 February 2019.

Mention of other proposed AccelNet projects – if they are successful, they might involve paleoscience. Discussed plans for the creation of a PAGES Topical Science Meeting (TSM) which would involve several working groups focusing on a specific theme – how it could be organized, planned, run, funding, which years, which working groups, connections with local communities, benefits to host institutions etc. Possible interest expressed from PAGES supporters/scientists in South Korea and Germany. It would be like a small Open Science Meeting (OSM) for a more-focused group and topic. Preliminary landing page on PAGES website:

<http://pastglobalchanges.org/topical-science-meeting/concept>

Flyer made by IPO – discussed wording and layout. Discussed flexibility of host countries/institutions.

Decision: All agreed the TSM is a good concept and to keep options open and flexible.

Discussed identifying and approaching national sponsors to fund working groups or workshops. Potential US National Science Foundation (NSF) funding opportunities for workshops held in USA. Proposal also has to be written by US scientist.

Action: IPO to advise working group leaders and workshop organizers of this NSF offer. *(done)*

EC discussed previous experience with NSF funding for PALSEA-QUIGS joint workshop in 2019.

Discussed experiences with charitable trusts and foundations.

2.4.2 Financial cutbacks

Brief request from MFL to SSC members who can assist with their own travel costs for the meeting.

Short discussion about potential video conferences.

3. Review of PAGES Working Groups (Appendix C)

PAGES currently has 17 WGs, in various stages, plus the Early-Career Network (ECN). Some will be sunsetting at the end of the year, while some have just started. SSC members who are working group liaisons presented highlights from the working group annual reports, accompanied by slides provided by each working group showing the groups' major achievements from the past year. The only group which didn't submit a report was Forest Dynamics.

3.2 Working group discussion

Discussions were held for all groups and feedback collated for group leaders.

Decision: SSC agrees that CVAS should submit an extension. Encourage them to engage more with community.

Decision: Encourage DAPS to start publishing.

Decision: In annual report response/feedback, encourage CRIAS to have more specific outcomes.

Decision: Accept GPWG2 extension request for one year.

Decision: Encourage OC3 to continue their plans before sunsetting.

Decision: Flag the PALSEA data stewardship issue *(EC: done 3.4.19)*

Decision: Encourage PEOPLE 3000 to submit extension proposal for next round (October 2019).

Decision: Thank PlioVAR and encourage them to make the most of synthesis projects.

Decision: Encourage QUIGS to continue. Encourage connection with DK and 12k project.

Decision: Put SISAL in contact with KM and PJV regarding models. *(MFL: done 14.4.19)*

Decision: Thank Forest Dynamics and encourage them to keep an eye on other PAGES initiatives. *(MNE: done)*

Action: All working group liaisons to provide timely feedback to their groups and cc AW.

Action: DK to be included on ECN emails. PAGES IPO to advise ECN. *(done)*

Action: AW to add September RAMSAR papers to Aquatic Transitions annual report. *(done, 11.4.19)*

Action: How can PAGES and SSC members support sunsetting groups which want to continue but no one stands up/wants to be the leader of a new phase? People decide they don't have time. Needs consideration.

Action: For EcoRe3, establish a connection between Alistair Seddon and Thomas Laepple. LG to suggest during her feedback email. *(done)*

Action: Should we encourage Floods to make a connection to the AccelNet risk submission, via MNE?

Action: AW to update GPWG2 page with one-year extension. *(done)*

Action: Keep an eye on who proposes WGs and have fall back people if younger ones can't follow up.

Decision - new SSC working group liaison officers:

CRIAS – BVG

CVAS – PJV

PEOPLE 3000 – WT

QUIGS – PJV

SISAL – AA

3.1 Any gaps (discussed out of running order)

Discussions were held about biodiversity, modeling biodiversity, water, links with PMIP, CO2 longer timescales, ecosystem services, paleohydrology, droughts and relationship with water (difficult to do past modeling), Holocene perspective/conditions (not just temperature – ocean acidity or biodiversity, leading into Anthropocene).

HM discussed Future Earth Science for Earth targets, possible fire group. Potentially interesting to get paleo perspective on new global targets. Bringing other GRPs together more. Food Water Nexus – not sure how paleo will fit.

Brief mention of SDGs – what can paleo deliver to those?

Decision: Add a more specific call for filling WG gaps in e-news?

Action: Flesh out what need from potential groups.

Action: Going through SDGs and deciding what paleo has to offer. Leader could be PJV.

4. PAGES ECN Update (SJA)

This is the first year a member of PAGES Early-Career Network (ECN) Steering Committee (SC) has joined the SSC Meeting. This year, Stella Alexandroff was chosen by the ECN Steering Committee as its representative.

4.1 Network activities

SJA did a quick recap of ECN history (launched February 2018, born from the 2017 Young Scientists Meeting in Spain) and current structure. In November 2018 had 307 members. On 26 March 2019 had 392.

SJA explained regular activities such as newsletter, blogs every 2-3 weeks, webinars, meetings with regional representatives, engagement with other networks such as YESS and Network of Networks, social media presence, and six splinter meetings at big and small conferences last year. Also wrote four PAGES Magazine articles. AR6 IPCC review group - 17 signed up via ECN by February.

Grant-writing workshop end of May.

9 steering committee members. 25 regional representatives. 15 WG liaisons.

SJA discussed need to change the SC – too centralized – to ease the “top-down” workload and break down barriers. Need to separate the task groups from the SC.

SJA discussed plans for regional reps and the need to install a more efficient system and communication and the creation of clusters e.g. writing support, meetings, public outreach, science collaborations.

SJA concluded that it has been a great year and the SC is now in a good state to try to improve some things. Discussion about the ECN. MNE thanked SJA and ECN for all their efforts, and said the ECN could be the most important thing PAGES does. Everyone impressed by how advanced the network is – on par or way ahead of working groups. Group provided some suggestions for streamlining the workload. Brief discussion of how association with PAGES could assist in getting jobs?

Action: Keep thinking/talking about this within SSC. How next generation has permanent jobs, regional differences etc. How people hired, hot topics.

Action: Think about which skills obtained by being an ECN member could give you more chances of employment.

Action: Could there be interest in weekly discussions/online meetings of higher-visibility papers? SJA to investigate.

5. Endorsed and affiliated activities

5.1 Review of Endorsed & Affiliated Activities (All)

Endorsed

ICYS: Going well. Franciële Schwanck on ICYS also an ECN regional rep.

IPICS: Going well. Meetings are planned (IPICS Montana 2020).

PMIP: Could do more with ECRs?

Varves: Still active.

Decision: Continue to endorse all four groups.

Decision: BVG will be new Varves liaison.

Affiliated

Affiliated groups have a looser connection than endorsed groups.

CHN and Historical Climatology: Going well. They often distribute elements of our e-news. Have connection with 2k Network.

HDRG: New addition in 2019. Based on already existing group on population dynamics in western Europe. Want to expand regionally and timewise.

IHOPE: Valuable to maintain. IHOPE changed direction a few years ago. Now only Carole – no support person.
IODP: Have received substantial US NSF grants/money. New Forum Chair is Dick Kroon.

Action: EB to contact Dick Kroon.

Decision: LG new liaison for IHOPE.

5.2 Proposals for new Endorsed & Affiliated Activities, including new application (All)

Stemming from an initial proposal submitted at 2018 SSC Meeting, new application received for a new endorsed group, titled CarpClim. Discussed group's plans and ideas.

Decision: All approve this endorsement. Encourage CarpClim to access the global reach of PAGES.

5.2.2 Future applications for endorsed groups and workshops

PAGES occasionally receives requests for endorsement of groups and endorsement of workshops, but there is currently no set plan for dealing with the requests.

Discussed merging both review models together, to be discussed every three months, starting in January each year.

Decision: Every three months, IPO to send proposals for endorsed groups and endorsed workshops to SSC, and then collate for EXCOM to make a decision. The forms are good.

Action: Forms and dates to be added to website.

6. Proposals for new PAGES working groups

All members provided feedback on two proposals – from Pisco-sur and ACME.

ACTION: EXCOM members to include SSC member discussions in decision-making process.

7. SSC Nominations

7.1 Current SSC membership

MK and PG finish their terms at the end of 2019. In 2020 DK and BVG also complete six year terms. MNE mentioned he is grateful for their wisdom and service.

7.2 Second terms for renewal

WT and EB indicated willing to continue.

Decision: Unanimous approval from SSC for continued second terms.

7.3 Nominations for SSC in 2020

Applications from six candidates discussed at length. Discussion about how many candidates should be chosen with potential to reduce or increase size of SSC. Long discussion on gender balance.

Currently, supporting letters are included by the applicant in their application.

Decision: All agree that supporting letters should be sent directly from supporter to PAGES.

Action: AW to change procedure so letter comes from supporter directly to PAGES. (done, 11.4.19)

Action: EXCOM members to include SSC member discussions in decision-making process.

7.4 Organizational structure

Discussed what would change if additional funding is or isn't granted. Would we have a rotating second co-chair?

Decision: If financial situation changes, increase the EXCOM to six members, with Executive Director (MFL) as tie-breaker when required.

Action: Keep in mind WT wishes to have additional Swiss representation, if more colleagues from one country join the SSC/EXCOM/Co-Chair.

8. Meeting support proposals and SSC comments

Discussed, at length, seven PAGES working group workshop proposals and four Open Call applications.

Action: EXCOM members to include SSC member discussions in decision-making process.

9. PAGES OSM/YSM – Expressions of Interest

Four Expressions of Interest were received to host the 2021 Open Science Meeting and Young Scientists Meeting. Lengthy discussion on all candidates. Discussed locations of past OSM/YSM events.

ACTION: EXCOM members to include SSC member discussions in decision-making process on which proposals will be invited to submit a full bid.

Action: Make a note in e-news about 2021 having working group meetings in conjunction with OSM. Remind the working group leaders.

Action: Add that an ECN member should be in steering committee of OSM.

10. Report on EXCOM recommendations (WT)

WT thanked MNE for yesterday's session. MNE thanked everyone for SSC feedback which assisted in speedy decisions at the EXCOM meeting.

New working groups

Decision: Pisco-sur not accepted.

Decision: ACME accepted.

Meeting support proposals

Decision: P1 SISAL supported

Decision: P2 C-SIDE supported

Decision: P3 Floods supported

Decision: P4 EcoRe3 supported

Decision: P5 LandCover6k not supported

Decision: P6 C-PEAT supported

Decision: P7 CRIAS supported

ACTION: IPO to send notification emails by start of May and include SSC liaisons. *(done)*

New SSC members for 2020

Decision: Aster Gebrekirstos and Elena Ivanova invited to join SSC from January 2020.

ACTION: MFL to send names to Future Earth for approval. *(done 27.3.19)*

OSM/YSM full bids

Three of the four potential hosts will be invited to submit a full bid by 9 September 2019.

ACTION: IPO to send notification emails by start of May. *(done)*

10.2 New WG liaison officers

Decision: ACME SSC liaison is KM.

11. Integrative activities

WT explained system behind IAs for new members.

Former IA Warmer Worlds came to an end in 2018. Published paper in time for IPCC.

11.1 Data Stewardship (DK)

DK explained Data Stewardship different to others IAs because there is no working group associated with it. No products identified (other than Dec 2018 PAGES Magazine "Building and Harnessing Paleodata"). Received good feedback on SSC editorial in that magazine, as well as 2k special issue data policy.

Data reporting standards: The SSC could promote and facilitate the standards for reporting paleo climate data by building on the efforts of EarthCubed LinkedEarth project.

Large-scale indicators of past climate: The SSC could promote and facilitate the compilation of large-scale (global) metrics of past climate states based on well-curated data syntheses or key datasets. This information would be useful for Future Earth's quantification for planetary boundaries, for IPCC's assessment of global change, PMIP's benchmark datasets, and could advance PAGES-IPO's, "looking for paleodata?" service.

Signed MOA with Neotoma and plan still in discussion with NOAA WDS-Paleo.

Discussions on ECNs providing data. Mention of FAIR data standards.

Mention of PAGES webinar on LiPD – many WGs taken this onboard now.

Discussions on how to rally the WG data liaison officers.

DK said he is keen to keep leading this effort but needs guidance and assistance. What can the SSC do to promote this activity?

Action: Set up mailing list for data stewardship WG liaisons.

Action: Ask BV and SSE to be involved in this IA.

Decision: DK to stay as leader with assistance.

11.2 Extreme events and risk assessment (BVG)

BVG briefed the group on past activities, including session at EGU, meeting, and the difficulties of bringing paleo and model communities together. Connections with WCRP Grand Challenges and potentially Future Earth and Risk KAN.

Plans for a paper from the February meeting to be submitted in time for AR6. Hydroclimatological extremes. The other IA leader, Hugues Goosse, is willing to stay involved for a short time longer.

Decision: MNE to join BVG on team.

Action: MNE and BVG to discuss further and work together.

Action: BVG to contact Nerilie Abram.

Action: MNE to send BVG AccelNet project proposal. *(Input from MNE 9.4.19: Done)*

11.3 Thresholds, tipping points and multiple equilibria in the Earth system (MFL)

MFL discussed workshop with AIMES in November 2018. Outcome is idea of writing a paper. Provisional title is on past tipping points and cascading impacts in social systems.

Unsure how group will evolve.

EC mentioned the EU-funded H2020 project “Tipping Points of the Earth System” (TiPES). PJV involved.

Decision: EC and PJV to join Ed Brook in this IA.

Action: IPO to put EB in contact with EC and PJV.

11.4 Should we create a new IA?

Discussions on potential new IAs included paleoecology for future scenarios; forests/fire management. Something related to the biosphere for ecology perspective, including paleohydrology; Anthropocene; paleoecology boundaries; carbon nitrogen cycles; human impact – something for the human corner of our science structure.

Could we involve WCRP?

MNE suggested putting it to the community for ideas. Might be good ideas within 20 of us. Survey on PAGES website. Limited to 200 words.

Decision: No decision reached.

Action: No action confirmed.

12. PAGES Products and Communication (MFL, SSE, AW)

12.1 PAGES contribution to IPCC AR6

Discussion of ongoing commitment to IPCC AR6 report contributions. Mention of booklet written by MFL to assist WGs on how they could contribute to IPCC according to different chapters. That document was distributed to lead authors and a few of the reviewers. Tried to keep it short. Authors from chapters can check immediately in their chapters. MFL will make a final version in early 2020 with final things that could be included.

DK discussed planned ECN contribution to assist with paleo in WG1. Paleo authors struggled to represent paleo in their chapters, trying to educate chapter editors why paleo should be included, very competitive to get something in about paleo. Reviewer comments will have major impact. Delighted the ECN has taken initiative to organize a review in structured way. Will be when the first order draft is available.

SJA said this ECN review of IPCC AR6 is a joint effort with Apex. From ECN had 49 people sign up to be reviewers. Will see who fits into which chapter, and who contributes to which chapter. YESS scientists had a webinar on how to be involved in IPCC report about a year ago which was of assistance. Maybe PAGES/ECN could do something like that too.

DK discussed plan to make a table of contents where paleo coverage can be found across the AR6 report.

Action: AW/DK to send individual email to database about deadlines for IPCC AR6 WG1 review. *(done)*

Discussion of WG2. WG2 review is from 18 October to 13 December.

Action: AW to send individual email to database about deadlines for WG2 in October.

Action: IPO to tell Future Earth going to be supporting AR6. *(done, 23.5.19)*

12.2 PAGES Magazine

Discussion of current and future planned magazines. Next issue will be May 2019 by PALSEA group.

In October 2019, Ocean circulation in carbon cycling. For the first issue of 2020, Rachid Cheddadi from the VULPES project approached us with the proposed title “Past plant diversity and conservation issues” (similar to 2017 issue Sustaining Earth’s Biodiversity). They’re not a PAGES group, but they have organized several PAGES-

endorsed workshops.

BV suggested a magazine for teenagers.

The next group which expressed interest is Historical Climatology and CRIAS working group. Fall 2020.

Antarctic or ice core issue, would be in 2021 at earliest. Can discuss that at next year's SSC Meeting.

SSE mentioned possibility of future PAGES webinars. Won't happen quickly but by end of year have another one.

PJV mentioned possibility of PMIP webinar. MNE said three possible presenters could be Ed Cook, PAGES supporter, worked on drought. Jason Smerdon, dynamic speaker, and Richard Seager modeling and physical analyses. All at same institution.

LG suggested Steve Jackson would be another good speaker. She also suggested each magazine issue could be complemented by a webinar.

12.3 Communications wrap

AW presented highlights from previous year's communications efforts.

13. Upcoming meetings (MFL)

13.1 PAGES SSC Meeting in 2020

Discussions were held by all in regards to limitations of planning next SSC Meeting, without secured funding.

LG mentioned Cape Town, BV suggested Besancon and KM suggested Australia.

WT suggested potential to obtain funding for Bern. Possibility of just before EGU.

Decision: No decision reached. To follow up via email.

13.2 AGU, EGU, INQUA, ICP and other general assemblies

Discussions were held on potential PAGES' presence at these meetings.

AGU, San Francisco: Possibility of holding half day PAGES' presentation at Future Earth booth, with props.

Action: MFL to contact Josh Tewksbury to say still interested and would be happy to do it.

Action: SSE discussed some ideas with MNE and will investigate options.

INQUA, Dublin: Discussion of potential dinner with seven SSC members and INQUA executive committee.

PAGES ECN will be at INQUA too.

Action: MFL to continue discussions with organizers of congress.

ICP, Sydney: PAGES allocated a corner with stand-up banner. SSE going.

EAA, Bern: MFL involved in organizing committee. Will have banner, magazines and flyers.

World Biodiversity Forum, Davos: HM suggested PAGES could run a session in Davos in February 2020.

Action: MFL to speak with Cornelia Krug about conducting a session.

IUGG, Montreal: EC will be there. A small amount of paleo.

Action: EC to add a bit of PAGES to her presentation.

World Conference on Ecological Restoration, Cape Town: LG and PG conducting session in September.

Action: LG and PG to apply for endorsed workshop.

ECN at a few conferences.

Action: SJA to send list to AW.

13.3 Joint INQUA-PAGES ECR workshop 2020

MFL explained background of August 2018 PAGES-INQUA joint workshop for ECRs (topic sea-level rise).

Mostly organized by ECRs with support from seniors. Idea to continue this joint activity every 2 years, in between INQUA and OSM congresses. In 2018 INQUA organized, so now PAGES turn.

Potential topics "Paleo human-environment interactions" or "Socio-ecological systems" and "Hazards".

MNE suggested ECN could take over and SJA said she would mention it to the group. It could be first item for new ECN working group on workshop organization.

Action: SJA to contact ECN and get ball rolling.

14. WCRP update (MFL)

14.1 New Director

MFL has had no communication with him – not communicative via post or email.

14.1 Scientific Agreement

PAGES and WCRP have a scientific collaboration. Update/extension signed in early 2019.

14.3 Joint Scientific Committee

MFL was asked to join the 2018 meeting but unsure if invited to Geneva in May 2019.

Action: MFL to write to WCRP to check if PAGES invited.

14.4 Activities

Action: PJV to check if any other WCRP connections with working groups? Stronger connections? How to get the groups connected? In contact/coordination with MFL.

15. Future Earth update (HM, MFL, other leaders)

PAGES is a Global Research Program of Future Earth. Future Earth is a 10-year initiative, currently in fourth year.

Overall, HM discussed recent developments, plans for the future and ways PAGES can be involved.

Presentation of Global Systemic Challenges – fire could be a topic where PAGES participates.

Presentation of Science for Earth Targets, and the four SDGs Future Earth is involved in.

Presentation of Alliance for the Global Commons, Earth commission (potential link with PAGES).

Presentation of Our Future on Earth Report – plans to publish end of 2019. PAGES could be involved in point 5.

Climate and point 9. the Unravelling web of life *(Biodiversity). MFL suggested also 7. Ocean and 8. Fire.

Action: MFL to contact Craig Starger and Kaela Slavik about potential PAGES contributions to additional chapters for the report. *(done 3.4.19, waiting to hear back)*

Brief presentation of Future Earth Society and SRI 2020.

Action: Keep an eye on this call for sessions.

Discussion of KANs – Future Earth now has nine - Emerging Risks and Disasters: Natural Assets:

Decarbonization; Health; Urban; Ocean; Finance and economics; Sustainable consumption and production;

Water-Energy-Food Nexus. PAGES is involved in Natural Assets, Risks, and Ocean.

Natural Assets KAN: Development team August 2017; MFL rep for PAGES; First in person meeting in April 2018 in Montreal; Now going to steering committee. Call with be launched in April.

Risk KAN: Called for development team closed in November 2018. PAGES DAPS leader Hugues Goosse joined scoping workshop June 2018 in Paris. MNE and BVG could be involved somehow. MNE wrote to KAN leaders in December.

Action: BVG or MNE to contact Risk KAN leaders again.

Ocean KAN: Joint effort by WCRP, SCOR, Future Earth. Relevant to SDG14 “Life below water”. Decade of ocean science 2021 – 2030. Two working groups – one on learning networks and one on knowledge mobilization.

Meeting in May 2019 in Copenhagen. Drafting 10-year plan.

December 2019: transition from Development Team to formal Ocean KAN.

Check call for nominations for steering committee later this year.

Action: Keep eye on nominations for Ocean KAN steering committee late 2019.

Presentation of ECRs and capacity building and the ECR Network of Networks.

Nick Schafstall is PAGES ECN contact person.

HM said she would present PAGES activities, such as IPCC, funding situation, ECN, at upcoming AC/GC meetings.

Discussions about GRPs review and annual reports.

Further discussions about Natural Assets and Ocean KANs and PAGES willingness to be involved.

Action: MFL to ask MK for committee nomination ideas for Ocean KAN. IPO to ask around for Natural Assets KAN nominations.

16. Any other business

16.1 Where do you see PAGES in five years?

Group discussion about direction of PAGES in future. Mentions of funding, bringing mainstream paleo into applied biodiversity science (fire, water management, sustainability eco system services), improving the currently underrepresented human element of PAGES science structure (how have humans interacted with environment in the past, including water resources), strengthening the training of ECRs, ideas for a PAGES summer school for PhD students and early postdocs, a possible three-minute movie introducing PAGES.

Discussion of how to bring more ECRs into PAGES as ECRs don't know how they should engage themselves.

Action: IPO and ECN to make a 2-page flyer about how ECRs can get involved in PAGES and WGs.

Suggestion that WG leaders could present a webinar on their own group to encourage ECRs to be more involved. Suggestions to see tangible examples of how young scientists have been involved in working groups.

Someone helping to build a dataset and meets online with global collaborators. Experience of young scientists at YSM, OSM.

HM discussed success in asking students to make videos. Future Earth also has a new website coming soon and suggested PAGES decides on 10 main themes that PAGES is working on and showcase them easily on website. So that when to get to home page or landing page, "I'm interested in ..." and then redirected to working groups.

Brief discussion on potential for video game.

16.2 PAGES Prize

During the meeting the idea of a PAGES Prize was floated as a recognition for ECRs.

Brief discussion of logistics/requirements to win the prize, how often it would be awarded etc.

Plan would be to run the "competition" in line with other SSC Meeting deadlines, so the prize winner would be decided at the annual SSC Meeting. A mention would also be made in the following Past Global Changes Magazine.

Action: IPO to write criteria/plan and circulate to SSC to be ready for call in Feb 2020.

16.3 How to make PAGES more visible

Discussions were held among members on improving the visibility of PAGES.

Discussions about rejected Wikipedia entry attempts, discussion about definition of PAGES so everyone knows what we are.

Action: AW to put new sentence on Welcome page. We are a registered association for scientific research and networking. We are a global research project of Future Earth. (done, 11.4.19)

Brief discussion of a potential Communications IA, but no interest from SSC.

Discussion of more outreach events.

Action: AW to add outreach event to meeting application forms. (done, 11.4.19)

16.3 How to promote less travel?

Discussions on carbon offsets.

Discussions on webinar platforms – at the moment PAGES uses mainly Adobe Connect. SJA mentioned Adobe Connect not working so well for South American and African participants. Discussed GoTo Meeting and Future Earth uses Zoom.

Discussions on promoting more web options for meetings for PAGES WGs.

Action: AW to add a line to annual WG report how get together without meeting in person. (done, 11.4.19)

Action: AW to do research on Zoom and think of alternatives.

Discussions on a potential sustainability policy, which would include less travel, possible vegetarian food at meetings, not using plastic water bottles etc.

Action: Collect ideas from SSC members for a sustainability policy, compile what possible ideas, then put it on website? (AW emailed SSC members 11.4.19. Waiting for responses.)

16.3 Future of printed PAGES Magazine

Lengthy discussions on various options for printed magazines. Do we ask people to pay? Do we print a finite number and people contact us when they want it/to opt in for each magazine? At the moment the magazines are sent by the printing company. This could create a lot of work for IPO.

Discussions on bulk rates if we reduce the printed copies to 500 or 1000 etc. Reducing the printed copies (currently at around 2200) could be part of the sustainability policy.

Currently the PAGES Magazine is very good for PAGES visibility. Concerns raised if we print less, then lose visibility.

To close the meeting, WT thanked outgoing member Peter Gell for six years of service and thanked AA for organizing the SSC Meeting and the symposium at the Addis Ababa university.

WT mentioned the success of having an ECN member at meeting.

MFL thanked co-chairs MNE and WT for leading discussions on both days.

Meeting closed