



# TOPC

*Achievements, Challenges and Outlook*

For the SC-26 2018: Michael Zemp, Wolfgang Wagner,  
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WORLD  
METEOROLOGICAL  
ORGANIZATION



International  
Science Council

**UN**  
environment

1. The TOPC Online Forum
2. Terrestrial ECVs
  - A. IP Action Rapporteurs
  - B. ECV Stewards
  - C. Factsheets
  - D. Update of Requirements
3. The Task Team for Climate Adaptation Observations
4. Expectations for the Joint panel Meeting 2019
5. Expectations from the Steering Committee



- The forum was established for the TOPC meeting in March 2018
  - It facilitates discussion amongst the Panel Members and the wider community
  - Created to enable discussions for updating ECV Requirements and progress on TOPC IP Actions
  - Short online introduction:  
<https://board.geo.tuwien.ac.at/>
  - Currently 32 users (7 non TOPC) and growing
- Needs patience but proved to be very helpful

The screenshot shows the homepage of the TOPC Online Forum. At the top, there is a logo for GCOS • WCRP TOPC with a stylized tree icon. Below the logo is a navigation menu with links for Dashboard, Discussions, Activity, Inbox, vaich, and Sign Out. The main content area is titled 'Home' and features a user profile for 'vaich' with a 'New Discussion' button. There are sections for 'Categories', 'Recent Discussions', 'Activity', 'My Discussions' (30), and 'My Drafts' (1). A 'Category Filter' section shows 'Viewing: all categories | followed categories'. The right side of the page displays a 'Welcome to the TOPC Discussion Forum!' message and a list of categories with discussion counts:

Categories	Discussion
<b>IP Action Rapporteurs</b> TOPC has identified one or several IP Action Rapporteurs to lead on particular Actions of the GCOS 2016 Implementation Plan that are related to terrestrial observations.	1
<b>TOPC Panel</b> This thread is for the members of the TOPC panel to prepare meetings, report on action points etc.	1
<b>ECV Stewards</b> For each ECV GCOS has identified up to three stewards who helps them to report on the progress for each ECV. The stewards act as point of contact for the respective scientific communities.	1
<b>Factsheets</b> In this category terrestrial ECV Factsheets can be accessed (as googledoc) and discussed. If you are not	20

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- TOPC Panel
- **ECV Stewards**
- IP Action Rapporteurs
- ECV Factsheets
- ECV Requirement Specifications
- ECV Climate Signals
- GCOS IP Action Items

## ECV Stewards as of 2018



**wwagner**

March 20 edited August 17 in ECV Stewards 212.203.112.169

### HYDROSPHERE

**Anthropogenic water use:** Nigel Tapper

**Groundwater:** Claudia Ruz Vargas, Stephan Dietrich, Matthew McCabe

**Lakes:** Valery Vuglinsky, Jean-Francois Cretaux, Stephan Dietrich

**River discharge:** Ulrich Looser, Stephan Dietrich

**Soil moisture:** Wolfgang Wagner

### CYROSPHERE

**Glaciers:** Huilin Li

**Ice sheets and ice shelves:** Hiroyuki Enomoto

**Permafrost:** Philippe Schoeneich

**Snow:** Huilin Li

### BIOSPHERE

**Albedo:** Nadine Gobron

**FAPAR:** Nadine Gobron

**Land surface temperature:** Darren Ghent

**Evaporation from land:** Matthew McCabe

**LAI:** Nadine Gobron

**Above-ground biomass:** Martin Herold, Sassan Saatchi

**Anthropogenic GHG fluxes:** Greet Maenhout

**Fire:** Kevin Tansey

**Land cover:** Martin Herold

**Soil carbon:** Kevin Tansey

- Each ECV has one or more ECV Stewards
- They are a point of contact for the respective communities

## ECV Steward Tasks:

- Coordinate all relevant issues of the ECV
- Are the point of contact for all GCOS related questions regarding the ECV
- Keep list of data sources up to date and review new suggestions within the review process for “WMO endorsed High-Quality Climate Data Sets”





Discussions Activity Inbox mzemp Sign Out

- TOPC Panel
- ECV Stewards
- IP Action Rapporteurs
- ECV Factsheets
- ECV Requirement Specifications
- ECV Climate Signals
- **GCOS IP Action Items**

## List of Rapporteur(s) for TOPC IP-Actions



### Action T27: Observations of glacier velocities\*

 TOPC\_Admin

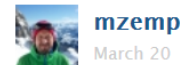
September 2017 edited March 20 in GCOS Actions 128.131.72.77

Encourage observations and reporting of glacier velocities

Rapporteur: Michael Zemp (WGMS), Frank Paul (GLIMS)

Quote

#### Comments



mzemp  
March 20 212.203.112.169

Progress:

+ ESA Glaciers\_cci produced glacier velocities for several regions: <http://www.esa-glaciers-cci.org/>

+ Global Land Ice Velocity Extraction from Landsat 8: <https://nsidc.org/data/golive>

Quote

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**B** *I*      

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- IP Action Rapporteurs promote and monitor the implementation of IP Actions related to the terrestrial domain

## Rapporteurs Tasks:

- Prepare and curate update on actions as basis for status report in 2021
- Point TOPC to issues during the implementation



- Almost all terrestrial ECV factsheets are reviewed by the respective ECV Steward(s) and ready to publish
- Suggested that any update of requirements only made on online version in addition to current requirements from the 2016 IP





## TOPC-20 2018 decided to establish a Task Team on Climate Adaptation Observations

### Members /Affiliation /Expertise:

- **Nigel Tapper (Chair)** / Monash University/ Urban Planning, heat related health
- **Kelly Leilani Main** /MIT /Urban Planning
- **Matthew McCabe**/ Kast University/ Dry lands, water and agriculture
- **Jean Palutikof**/ Australian National Climate Change Adaptation Research Facility/coastal adaptation
- **Gina Ziervogel** /Cape Town University/ Water and food security
- **Ben Preston**/ Rand cooperation/ Energy, infrastructure, policy
- **Paul Watkiss**/ Consultant/ Adaptation policy appraisal, cost-benefit analysis
- **Hartwig Kremer**/ UN Environment, GEMS Water Unit & Climate Technology Centre and Network, CTCN/ Water & economics



## Terms of Reference (Excerpt):

- Identify indicators to monitor adaptation. These indicators may be based on physical as well as socio-economic data.
- Report on current status of observation availability and adequacy for adaptation and outline benefits improvements could produce
- Consider what requirements, guidance and best practice for climate observations for adaptation may be needed and how to produce them
- Advise Scientific Panels of GCOS on how to promote observations for adaptation in the existing global climate observing system
- The task team shall exist for an initial period of one year and will be extended according to identified needs.

Potential for cross-panel task team...

# TOPC Expectations for the Joint Panel Meeting 2019

- Limit plenary sessions to 1 day, leaving time for meetings of individual panels and cross-panel task groups
- Clear timeline for update of Implementation Plan
- Reporting on all terrestrial ECV, status and Implementation Plan actions
- How to make use of programs/projects dedicated to ECVs (C3S, ...)

=> Guidance from SC for plenary & cross-panel tasks

=> Teleconference between Panel Chairs & GCOS Secretariat to define topics



- Stronger guidance from GCOS Steering Committee with respect to
  - Tasks
  - Priorities
  - Timelines
  - Cross-panel task teams
  - Cross-panel implementation processes (cf. agenda point 4d)

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