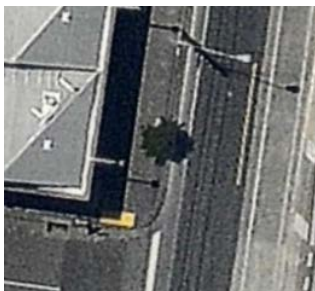


# Terrestrial Observing Panel for Climate (TOPC)

*Report on recent activities*

Simon Eggleston



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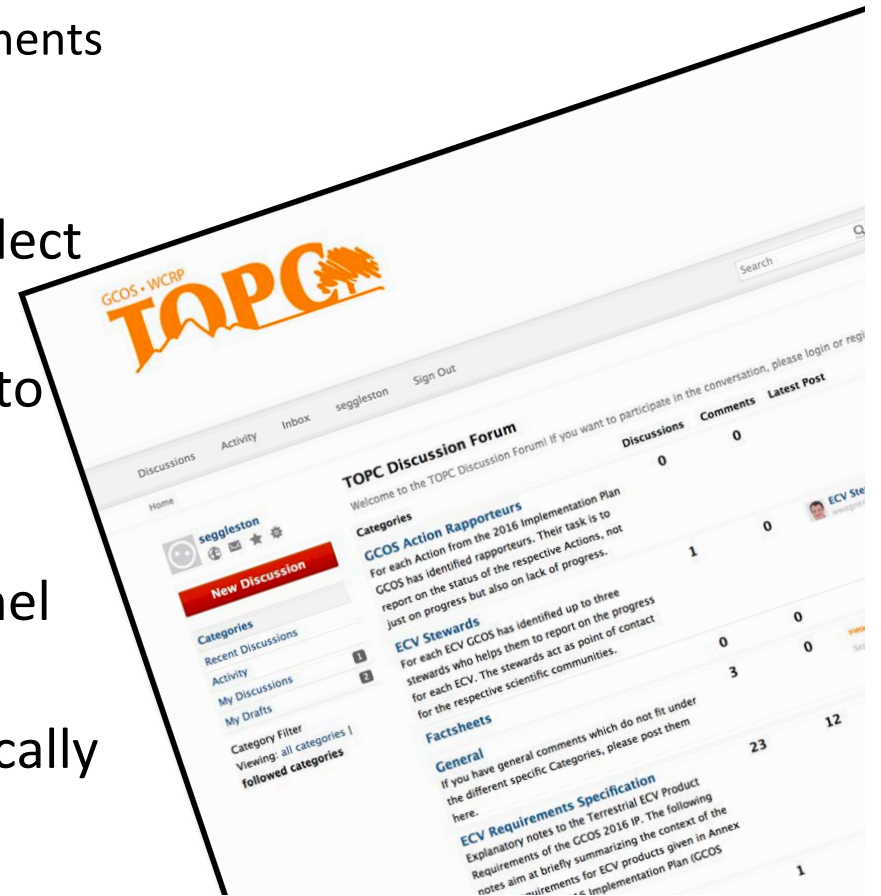


- Evaporation from land
  - agreed by TOPC and GCOS Steering committee
  - consistency with ocean ECV, as far as possible

ECV	Products	Frequency	Resolution	Required measurement uncertainty	Stability (per decade)
Evaporation from land	Latent heat flux	sub-daily, latency of less than 1 month	threshold 25km goal 1km	<10%	Better than 1%
	Sensible heat flux				

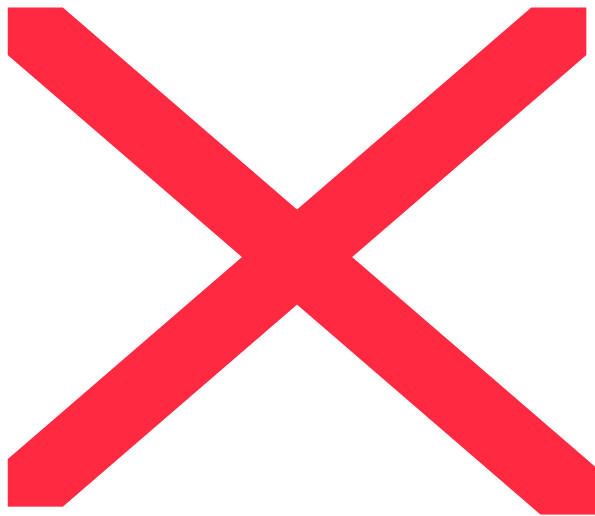
# Review of ECV Requirements and GCOS Implementation Plan Actions

- Part of the work of the panel is
  - to review and update ECV Product requirements
  - Review progress on actions in the Implementation Plan
- TOPC is trialling an internet forum to collect comments and inputs into these actions
- If successful, this will be made available to people outside of TOPC so they can comment and make suggestions
- This will allow a broad input into the panel considerations
- It is not intended to be completely publically open



# Possible Adaptation Indicators (1<sup>st</sup> cut tabled TOPC-20, March 2018)

Realm	Possible Indicator	Physical or Financial	Data Source	Scope (for global, need to consider their global representativeness)
Urban Environments	1. <b>Vegetation Fraction (Greenness)</b>	P	Satellite	Global
	2. Impervious Fraction	P	Satellite	Global
	3. Complete Surface Fraction	P	Satellite	Global
	4. Albedo	P	Satellite	Global
	5. Urban air temperature mitigation	P	Weather station	Global
Agriculture and Forestry	1. Shifting agricultural zones	P	Satellite (LULC)	Global
	2. Prescribed burning	P	Satellite	Country
	3. Investment in fire suppression	F	Fire Agencies	Country
Coastal Infrastructure	1. Adapting existing infrastructure	F and P	National agencies/ Satellite	Country
	2. Infrastructure for hazard management	F and P	National agencies/Satellite	Country
	3. Insurances - disaster relief	F	Reinsurance companies/ national agencies	Global, country



- Local- and micro-scale measures need to be replicated across the city
- Many cities, mainly in developed countries are implementing this
- The amount of vegetation – greenness – can be measured remotely
- Thus a global observation can indicate the uptake of this adaptation measure

## Next Steps

- A working group is being established to consider this further:
  - Consult with the appropriate communities
  - Identify practical observations that either monitor or support adaptation
  - Make suggestions on how to integrate this into GCOS
- Aim to have an interim report at the next GCOS Steering committee (Oct 2018)
- A report by next year's joint panel meetings (March 2019)
- Focus on three areas:
  - Urban Environments
  - Agriculture/Food/(Fisheries ?)
  - Coastal Infrastructure (and permafrost impacts?)

thank you

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