|  |  |  |
| --- | --- | --- |
| GCOS Budget | (Status: 12 October 2018)  2018 | |
| The planning and implementation activities for the Global Climate Observing System (GCOS) are funded through the (a) WMO Regular Budget, (b) GCOS Climate Observing System Fund (COSF) and, (c) GCOS Cooperation Fund (GCF). | | Summary for 2018 and Outlook 2019/2020 |



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# Introduction

The planning and implementation activities for the Global Climate Observing System (GCOS) are funded through the:

(a) WMO Regular Budget, which directly supports the position of GCOS Secretariat Director and of the Administrative Assistant;

(b) GCOS Climate Observing System Fund (COSF), administered under WMO Trust Fund regulations, which is provided by the Sponsors and other voluntary contributors and which supports the core planning and programme activities of the GCOS Steering Committee, Panels, and Secretariat;

(c) GCOS Cooperation Fund (GCF), administered under WMO Trust Fund regulations, which is provided through voluntary contributions from various sources and which supports the System Improvement Programme.

Key Messages:

* The funding of core and re-current programme activities is based only on annual contributions. The pledging process for voluntary contributions has to be renewed every year; there are no sustained commitments to GCOS.
* The programme is underfunded and always short of resources for reaching its actual targets. The GCOS management is cutting down in general on all activities and only runs the core activities and a few activities in high-priority areas.
* The core activities of the programme are seeking funding for CHF 180,000 every year.
* The major programme activities, i.e., observational requirements for adaptation, regional workshops, cross-panel activities and starting the next assessment cycle, will need funding of CHF 250,000 in 2019 and CHF 290,000 in 2020.
* The GCOS programme will need dedicated programme officers to coordinate the climate observations for each domain, i.e., atmosphere, land and oceans, which will require in total about CHF 500,000 per year.
* The GCOS Cooperation Mechanism is managed by an implementation manager which will require an annual support of about CHF 170,000.

The planning and implementation activities for the Global Climate Observing System (GCOS) are funded through the:

(a) WMO Regular Budget, which directly supports the position of GCOS Secretariat Director and of the Administrative Assistant, and adds voluntary funds to the GCOS Climate Observing System Fund (COSF);

(b) GCOS Climate Observing System Fund (COSF), administered under WMO Trust Fund regulations, which is provided by the Sponsors and other voluntary contributors and which supports the core planning and programme activities of the GCOS Steering Committee, Panels, and Secretariat;

(c) GCOS Cooperation Fund (GCF), administered under WMO Trust Fund regulations, which is provided through voluntary contributions from various sources and which supports the System Improvement Programme.

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**Figure 1:** Funding Scheme of the GCOS Programme**.**

The following pie charts show the total contributions from the WMO regular budget and voluntary contributions of sponsoring organizations and partners to the COSF and to the GCF, for the current year and the past two years.

**2018 - Total contribution of sponsoring organisations and partners in % and TCHF**

**2017 - Total contribution of sponsoring organisations and partners in % and TCHF**

**2016 - Total contribution of sponsoring organisations and partners in % and TCHF**

**2015 - Total contribution of sponsoring organisations and partners in % and TCHF**

**2014 - Total contribution of sponsoring organisations and partners in % and TCHF**

**2013 - Total contribution of sponsoring organisations and partners in % and TCHF**

Voluntary Contributions of Sponsoring Organizations to the GCOS Climate Observing System Fund (COSF)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CHF** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** |
| **WMO** | **200,600** | **86,400** | **115,000** | **90,100** | **92,198** | **121,350** | **138,400** | **162,832** | **150,000** | **100,000** |
| **IOC/UNESCO** | **22,900** | **0** | **0** | **0** | **30,000** | **24,125** | **39,800** | **30,000** | **30,000** | **30,000** |
| **UNEP** | **2,100** | **0** | **0** | **17,226** | **1737** | **1932** | **0** | **0** | **0** | **0** |
| **ICSU** | **0** | **0** | **0** | **0** | **0** | **3644** | **0** | **0** | **0** | **0** |

**Table 1**: Voluntary Cash Contributions (Income) of Sponsoring Organizations to the GCOS Trust Fund (COSF) in the past 10 years**.** Figure in brackets indicates expected income.

Table 1 shows the voluntary contributions of the four sponsoring organizations to the GCOS Climate Observing System Fund (COSF) in the past 10 years.

Note that the salary of the Director and the Administrative Assistant are not included in Table 1, because they are met directly from the WMO Regular Budget and are not charged to the GCOS Trust Fund. The contribution of WMO comes up to about CHF 550,000 in total, whereas the other three sponsoring organisations only support a minimum of specific activities, i.e., travel of experts to meetings. IOC has initiated that the OOPC technical support is financed through a WHOI project, which brings up a support of about 160,000 CHF.

# Voluntary Contributions of Organizations and Governments to the GCOS Climate Observing System Fund (COSF)

Voluntary cash contributions of organisations and governments to the COSF for the past five years are indicated in Table 2. “In kind” contributions, i.e., seconded staff, provision of meeting facilities from national governments and partners, are shown in Table 3.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CHF** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** |
| **USA**  **(State Dep.)** | **316,000** | **336,350** | **336,700** | **293,500** | **0** | **90,000** |
| **Germany**  **(Ministry of Transport)** | **73,914** | **384,193** | **65,132** | **82,347** | **309,000** | ***(60,000)*** |
| **UK[[1]](#footnote-1)**  **(Dep. of Energy and Climate Change)** | **122,506** | **66,382** | **0** | **0** | **0** | **0** |
| **WHOI[[2]](#footnote-2)**  **(Woods Hole Oceanographic Institution)** | **79,160** | **82,000** | **156,480** | **164,000** | **164,000** | **164,000** |
| **EUMETSAT** | **24,504** | **24,000** | **24,000** | **24,000** | **24,000** | ***(24,000)*** |
| **WCRP** | **16,007** | **0** | **14,769** | **13,369** | **0** | **21,073** |
| **ESA** |  |  | **10,486** | **0** | **0** | **24,000** |
| **COSPAR** |  |  | **1,091** | **0** | **0** | **0** |
| **GFCS** |  |  | **10,909** | **0** | **0** | **0** |
|  |  |  |  |  |  |  |

**Table 2:** Cash Contributions (Income) to the GCOS Climate Observing System Fund (COSF). Figures in brackets are expected income until end of the year.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **2014** | **2015** | **2016** | **2017** | **2018** |
| **Germany** | One Junior Professional Officer Position. |  | One Junior Professional Officer Position. | One Junior Professional Officer Position. | One Junior Professional Officer Position. |
| **UK** | Admin and additional costs for Network Manager | Admin and additional costs for Network Manager | Admin and additional costs for Network Manager | Admin and additional costs for Network Manager | Admin and additional costs for Network Manager |
| **USA** |  | Secondment for 6 weeks of one NOAA staff to work with GCOS Secretariat (salary).  NOAA travel to GCOS Science Conference | Standing offer for an Secondment | Standing offer for an Secondment from NOAA/NESDIS | Standing offer for an Secondment from NOAA/NESDIS |
| **ESA** | 90% of all travel for the GCOS Steering Committee Chairman (ca. 20,000 CHF) | 90% of all travel for the GCOS Steering Committee Chairman (ca. 20,000 CHF) | 90% of all travel for the GCOS Steering Committee Chairman (ca. 20,000 CHF) | 90% of all travel for the GCOS Steering Committee Chairman (ca. 20,000 CHF) |  |
| **EUMETSAT** | Salary of the GCOS Space Rapporteur (ca. 10,000 CHF) | Salary of the GCOS Space Rapporteur (ca. 10,000 CHF);  **Conference Team to assist in GCOS Science Conf.** | Salary of the GCOS Space Rapporteur (ca. 10,000 CHF); | Salary of the GCOS Space Rapporteur (ca. 10,000 CHF); |  |
| **South-Africa (University Cape Town)** |  | Covering costs for GCOS Science Day |  |  |  |
| **Ecuador (CIIFEN)** |  |  | Covering costs for GCOS Science Day |  |  |
| **China (CMA)** |  |  |  | Covering costs for GCOS Science Day |  |

**Table 3:** In-Kind Contributions to the GCOS Programme in the past 5 years.

# Activities of the GCOS Programme based on the COSF

The investments are directed to the following activities, which can be classified as follows:

* Status Report, Planning for Implementation and related workshop, planning for the next assessment cycle;
* Coordination of climate observations, i.e., Reporting to Sponsors at Executive Councils, Assemblies, Congresses; Steering Committee, GCOS Management meetings;
* GCOS science and technical panels: Atmospheric Observation Panel for Climate (AOPC), Ocean Observations Panel for Climate (OOPC), Terrestrial Observation Panel for Climate (TOPC), cross-panel activities;
* Partner activities, i.e., United Nations Framework Convention for Climate Change (UNFCCC), Intergovernmental Panel on Climate Change (IPCC), World Climate Research Programme (WCRP); Global Earth Observing System of Systems (GEOSS), Committee on Earth Observation Satellites (CEOS) and the Coordination Group for Meteorological Satellites (CGMS);
* Regional implementation, with a focus on Southern Pacific, East Africa, Central and South-America; Eastern Europe;
* Network management, i.e., GCOS Surface Network, GCOS Upper-Air Network, Reference Upper-Air Network, Reference Surface Network, Surface Radiation Network, Global Terrestrial Networks;
* New initiatives (Global Framework for Climate Services (GFCS), Future Earth, Programme of Research on Climate Change Vulnerability, Impacts and Adaptation (PROVIA);
* Office, Outreach and Visibility (Editing, Translation, Printing), IT-charges, charges with regard to the office space

The contributions to the COSF (Table 4) are mostly spent to support the attendance of experts at workshops and panel meetings, i.e., travel costs and per diem, but also to pay for the salaries of the secretariat staff.

The total needs of the GCOS Programme in 2019 and 2020 are planned to be about 500,000 CHF, higher than the actual expenditures in 2018.

In 2019 and 2020, there is need for increased investments, as GCOS will discuss cross-panel issues, observational requirements for adaptation to climate change, plan for regional implementation, and start to plan for the next assessment cycle. The implementation plan from 2016 will require that the GCOS programme will need to increasingly invest in regional activities, which have been started at the end of 2017, and will continue in the years to follow.

The staff resources, as indicated in Table 5, are needed to support the management of programme activities by the GCOS Secretariat, i.e., organizing and managing the meetings, writing the reports, monitoring the panel activities, supporting the panel chairmen and panel members.

Note, that all programme officers are based one-year fixed term contracts, on the P4 UN-scale (P4 stands for “science officer” level). It will need longer-term and sustained funding to guarantee a more stable working platform for the GCOS programme and its Secretariat.

The position of the Director is subject to a regular WMO approval process, which takes place every two years. The Administrative Assistant is permanent WMO staff, supported by WMO`s regular budget.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2017**  **(actual/ planned costs)** | **2018**  **(actual/ planned costs)** | **2019 (planned)** | **2020**  **(planned)** |
| **Status Report, Implementation planning, science conferences, expert meetings** | 40,682/ 75,000 | 0/  75,000 | 30,000 | 60,000 |
| **Coordination of climate observations**  **(Reporting to Sponsors, Steering Committee, Management meetings)** | 46,835 /  100,000 | 51,552/  60,000 | 60,000 | 60,000 |
| **AOPC** | 34,824 /  40,000 | 54,826/  40,000 | 40,000 | 40,000 |
| **OOPC** | 39,178 /  60,000 | 39,776/  40,000 | 40,000 | 40,000 |
| **TOPC** | 21,490 /  40,000 | 11,310/  40,000 | 40,000 | 40,000 |
| **AOPC staff** | 165,282 | 163,026/  165,000 | 165,000 | 165,000 |
| **OOPC staff** | 173,416 | 165,663/  175,000 | 175,000 | 175,000 |
| **TOPC staff** | 181,990 | 175,525/  185,000 | 185,000 | 185,000 |
| **Partner activities**  **(UNFCCC, IPCC, WCRP, GEOSS, CEOS and CGMS)** | 9,107/ 50,000 | 25,054/  30,000 | 30,000 | 30,000 |
| **Regional implementation**  **(Focus on Africa and South-America)** | 20,000/  60,000 | 21,867/  300,000 | 50,000 | 50,000 |
| **Network management;**  **(GSN, GUAN, Reference Upper-Air Network,**  **Surface Radiation Network, Global Terrestrial Networks)** | 22,995/ 40,000 | 30,561/  40,000 | 40,000 | 40,000 |
| **Network Manager** | 59,829/ 165,000 | 62,019/  165,000 | 165,000 | 165,000 |
| **New initiatives**  **(GFCS, Future Earth, PROVIA)** | 0/  10,000 | 0/  10,000 | 10,000 | 10,000 |
| **Office, Outreach and Visibility (Editing, Translation, Printing), IT-charges, charges related to office space** | 78,452/ 150,000 | 17,599/  60,000 | 60,000 | 60,000 |
| **GCOS Cooperation Fund (GCF)** | 1,413 | 37,868/  100,000 | 100,000 | 100,000 |
| **Additional Staff Costs**  **(all details are given in Table 5)** | 0/  15,000 | 0/  15,000 | 15,000 | 15,000 |
| **Junior Professional Officer** | 0 | 0 | 150,000 | 0 |
| **Bank charges and rent subsidies** | 15,811 | 16,000 | 16,000 | 16,000 |
| **Total investments in CHF**  **actual/**  **planned costs** | **911,304 /**  **1,319,000** | **890,824/**  **1,666,000** | **1,371,000** | **1,251,000** |

**Table 4**: Investments in activities (Spending) **as of 12 October 2018**, incl. staff, paid out of the COSF.

Figure 2a visualises the distribution of funds for specific activities. It shows clearly that about 50% of the investments are needed for staff and that major investments will be needed for planning and implementation activities.

**Figure 2a:** Actual total investments for all activities and staff needed in 2017 and 2018, and planned activities for 2019 and 2020**.**

The Figures 2b, 2c and 2d are actually zooming into the details of Figure 2a and are showing the investments for the recurrent core activities, i.e., Steering Committee and Panel meetings (Figure 2b), for annual programme activities (Figure 2c) and for the staff costs needed to exercise all these activities (Figure 2d).

**Figure 2b:** Actual investments in 2017 and 2018 for recurrent core activities and planned investments for 2019 and 2020.

**Figure 2c:** Actual investments in 2017 and 2018 for programme activities and planned investments for 2019 and 2020.

**Figure 2d:** Actual investments in 2017 and 2018 for staff and planned investments for 2019 and 2020.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Expenditures in CHF** | **2017**  **(actual)** | **2018**  **(actual)** | **2019** | **2020** |
| **2020Staff paid from WMO Regular Budget (total gross)** |  |  |  |  |
| **Director (gross)**  **(fixed term 2 years)** | 278,225 | 260,000 | 260,000 | 260,000 |
| **Admin Assistant (gross)** | 158,125 | 158,125 | 158,125 | 158,125 |
|  |  |  |  |  |
| **Staff paid out of the COSF** |  |  |  |  |
| **Network Manager  (GCOS Cooperation Mechanism)** | 59,829 | 62,019 | 165,000 | 165,000 |
| **Programme Officer for the coordination of climate observations for the Atmosphere (Atmospheric Observation Panel for Climate)** | 165,282 | 163,026 | 165,000 | 165,000 |
| **Programme Officer for the coordination of climate observations for the Oceans**  **(Ocean Observations Panel for Climate)** | 173,416 | 165,663 | 175,000 | 175,000 |
| **Programme Officer for the coordination of climate observations for the Land,**  **(Terrestrial Observations Panel for Climate)** | 181,990 | 175,525 | 185,000 | 185,000 |
| **Year 4 of JPO (applicable 2018)** | 0 | 0 | 150,000 |  |
| **Consultant** | 0 | 0 | 0 | 0 |
| **Supporting Secondments (cost of living expenditures)** | 0 | 15,000 | 15,000 | 15,000 |
| **Sub-Total for staff out of COSF:** | **580,517** | **581,223** | **855,000** | **705,000** |
| **Supported by German Government** |  |  |  |  |
| **Junior Professional Officer, responsible for the coordination of climate observations for Land (Terrestrial Observation Panel for Climate) and assisting in the coordination of Oceans** | In-kind  (CHF 150,000 (gross)) | In-kind  (CHF 150,000 (gross)) |  | TBD |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Supported by EUMETSAT** |  |  |  |  |
| **Space Rapporteur** | In-kind  (30 working days) |  |

Table 5: Annual expenditures for staff in 2017 and 2018, and an outlook for 2019 and 2020.

|  |  |  |  |
| --- | --- | --- | --- |
| **CHF** | 2018 | 2019 | 2020 |
| Sponsors (voluntary)  (Table 1) | *130,000* | *130,000* | *130,000* |
| Partners (voluntary)  (Table 2) | *470,000* | *500,000* | *500,000* |
| **Total amount of voluntary contributions (Income)** | *600,000* | *630,000* | *630,000* |

Table 6a: Working Capital (Income) to the COSF in 2018 and expected minimum income until December 2018. The income for 2019 and 2020 is an estimation based on past years. The outlook for 2019 includes already the end of the 5-year contribution from WHOI, and the eventual contribution from the European Commission.

|  |  |  |  |
| --- | --- | --- | --- |
| **CHF** | **2018** | **2019** | **2020** |
| Income (Table 6a) | *600,000* | *630,000* | *630,000* |
| Spendings (Table 4) | *890,000* | *1,371,000* | *1,251,000* |
| Savings  (Losses) | *(290,000)* | *(741,000)* | *(621,000)* |

Table 6b: Losses made to the COSF in the years 2018, 2019 and 2020 assuming that there is no increase in budget, and without taking account of carry-over money from past years.

In the past years, significant savings could be made, partly due to not filling in longer-term positions and partly due to cutting down on meeting attendances and related travel costs.

**In reference to the WMO financial information, adding the carry-over of the past years to the income, led to an**

**Opening balance and allotment for 2018 of: 1,477,000 CHF**

**The balance as of 12 October 2018 is 547,496 CHF.**

Note, that voluntary contributions for the current year will usually only arrive at the end of this very year. This circumstance makes it crucial to have enough savings to carry-over to cover the gap. Increase of the expenditures will make the programme`s reserves melting away in the next couple of years.

The programme is in urgent need for additional funds.

# Voluntary Contributions of Governments to the GCOS Cooperation Fund (GCF)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CHF | 2014 | 2015 | 2016 | 2017 | 2018 |
| Germany (DWD) | 50,000 | part of the German contribution in Table 2 | part of the German contribution in Table 2 | 30,000 | 30,000 |
| Switzerland (Development&Coop; MeteoSuisse) | 0 | 100,000 | 0 | 0 | 0 |
| Japan (JMA) | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 |
| Greece (through GFCS Trust Fund) | 129,000 | 0 | 0 | 0 | 0 |
| HIGHWAY Project |  |  |  |  | TBD |

**Table 7:** Cash contributions per annum to the GCOS Cooperation Fund (GCF) in the past 5 years.

The activities of the GCOS Cooperation Mechanism are supported by funds out of the GCOS Cooperation Fund (GCF). The contributions are exclusively spent on the purchase of hardware or consumables for surface based weather and climate stations (sensors) and upper-air stations (radio sondes, balloons, hydrogen generators), and on the training of local staff to help to operate and to sustainably maintain the renovated stations.

The GCF is managed by the Network Manager who is reporting to the Director of the GCOS Secretariat. The Network Manager is currently a service offered by the UK MetOffice, based on a bilateral agreement between GCOS and the UK, which has been agreed to continue until 31 March 2019.

A more robust solution would be a fixed-term position based at the GCOS Secretariat (compare details in Table 5).

1. Allotted to the Implementation Manager. [↑](#footnote-ref-1)
2. Allotted to the coordination of ocean climate observations. [↑](#footnote-ref-2)