

## Archive Newsletters

### 24 Newsletter 13.05.2022 - RGI document updates (Task 1)

Baseline and practical concepts documents have been updated. The baseline concepts version 4.2.2 was reviewed and released in April 2022. Practical concepts version 2.0 and kinematic attribute version 3.0 are open for approval.

### 23 Newsletter 20.05.2022 - Seminars

[20.05.2022] The Action Group is organising online seminars related to different rock glacier topics. Next seminars are: “Inventorying rock glaciers in the arid West Kunlun of China by the combined use of SAR interferometry and deep learning” by Yan Hu (01.06.2022) and “Interpretation of Volume and Flux Changes of the Laurichard Rock Glacier Between 1952 and 2019, French Alps” by Diego Cusicanqui (30.06.2022). Please, check the seminar program [here](#).

### 22 Newsletter 04.02.2022 - Rock glacier velocity as an associated parameter of ECV Permafrost (Task 2)

The version 3.1 was released the 04 February 2022. The Rock Glacier Kinematic (RGK) product was renamed into Rock Glacier Velocity (RGV). This version and its content are open for approval. The practical guidelines will be compiled in a next stage starting early 2022 on the basis of this version 3.1.

### 21 Newsletter 02.02.2022 - Rock Glacier Velocity (RGV)

Rock Glacier Velocity (RGV) has been formally accepted as a new associated parameter to the ECV Permafrost under the framework of GTN-P and GCOS. Rock Glacier Velocity will be included in the next GTN-P and GCOS implementation plans, which are currently under review.

### 20 Newsletter 02.02.2022

This e-mail provides some news about the activities of the Action Group regarding the rock glacier kinematics part.

We are very pleased to inform you that following the proposal of the AG in 2019, **Rock glacier kinematics has been accepted as a new product of the ECV permafrost** by both [GTN-P](#) and [GCOS](#). Both organisations are currently updating their “implementation plan”, which will officially include the new ECV product.

Given its new status as an ECV product, rock glacier kinematics has been included in the work of the [Global Cryosphere Watch](#) task team in charge of defining best practices for permafrost monitoring (borehole temperature, ALT and kinematic). This task team is composed of permafrost scientists active in GTN-P, one metrologist, GCW representatives and one member of this AG. The AG will remain in charge of defining the baseline and practical concepts for rock glacier kinematic monitoring but will collaborate closely with the task team.

One recommendation of the GCW task team is that the name of ECV products should be self-explanatory and refer to measured variable and not processes. They suggested **renaming the Rock Glacier Kinematic (RGK) product into Rock Glacier Velocity (RGV)**. The **AG kinematic committee** met in January 2022 to discuss the proposition and **unanimously accepted the new name RGV**.

The **new version of the baseline concept document** is available online: Rock Glacier Velocity (RGV) as an associated parameter of ECV Permafrost ([Version 3.1](#)). This version and its content are open for approval.

If you do and want your name to appear in the approval list, please fill in [this online form](#)

If you have comments or suggestions for improving the document, please contact: [rockglacier-ipa@unifr.ch](mailto:rockglacier-ipa@unifr.ch)

#### 19 Newsletter 01.12.2021

I would like to invite you to join our new communication platform on Slack for **informal exchange** among the Action Group members. We have currently four discussion channels (+ general and random channels) dedicated to different topics related to the Action Group. This platform is to foster the exchange and collaboration among action group members, but **the official communications will still be disseminated** using the official mailing list [Rockglacier-IPA@unifr.ch](mailto:Rockglacier-IPA@unifr.ch).

If you want to participate in this platform, please follow the link below:

[https://join.slack.com/t/unifr-hq/shared\\_invite/zt-z5bu46e9-Ewp7y7GzX9v3BkQWarKm4A](https://join.slack.com/t/unifr-hq/shared_invite/zt-z5bu46e9-Ewp7y7GzX9v3BkQWarKm4A)

You can either participate with a web or desktop-based version. Suppose you do not want to receive too many e-mails from the SLACK platform. In that case, we recommend unselecting the e-mail notifications (Preferences>Notifications>Send me email notifications for mentions and direct messages).

We are looking forward to your comments, questions, ideas, rock glaciers photographs and challenges, etc.

#### 18 Newsletter 24.11.2021

This e-mail provides some updated information about the activities of the [IPA Action Group Rock glacier inventories and kinematics](#). It is also the opportunity to welcome the new subscribers to the mailing list, which is now regrouping 172 persons from 24 countries !

Because the group is continuously growing and recent subscribers have not taken part to the Action Group activities in earlier stages, a few words are summarizing the history of the Action Group and its “way of doing”. The proposal to create this Action Group was submitted to the IPA (International Permafrost Association) in November 2017 and accepted by its Executive Committee. The Action Group was launched at the 5<sup>th</sup> European Conference on Permafrost (EUCOP5) in Chamonix, France, in June 2018. After a first phase of two years, the IPA renewed its support for two more years ([application Phase II](#)), and due to the delays caused by the pandemic, extended it until June 2023. The main idea of the Action Group is to federate scientists in view of establishing standard guidelines for inventorying rock glaciers (RGI) and developing/promoting the monitoring of rock glacier kinematics (RGK) as a permafrost-related climate variable for mountain regions. Two workshops were organized in Switzerland in September 2019 (44 participants) and February 2020 (25 participants). Since then,

two dedicated committees are accompanying both RGI and RGK developments. The members of the Action Group, namely all subscribers to its mailing list, are regularly consulted to provide their input and feedback. All documents prepared by the Action Group are accessible on its website.

### **Rock glacier inventories (RGI)**

- The latest version of the *Baseline concepts towards the set-up of standard guidelines for inventorying rock glaciers* ([RGI\\_BCv4.2](#)) was released in July 2021.
- An illustrated version of RGI\_BC4.2 and practical inventorying concepts have been worked on as an additional chapter. A feedback round was open until October 2021. The resulting documents are in preparation and expected to be ready before the end of the year.
- As a result of the Action Group Workshop II and in addendum to RGI\_BC4.2, [baseline concepts for the integration of an optional kinematic attribute in rock glacier inventories](#) were set up and already commented by the community in 2020. The final version is however still pending.
- In addition to this, InSAR-based practical guidelines for the set-up of kinematics-based rock glacier inventories including a kinematic attribute have been edited in the framework of the [ESA CCI+ Permafrost project \(2018-2021\)](#) and their application tested by various operators in 11 regions on Earth. [More info here.](#)

### **Rock glacier kinematic time series (RGK)**

- The [version 3.0](#) was released early November 2021 and is **submitted to your approval until 31 December 2021** via the link inserted in the first page of the document.
- Practical guidelines will be compiled in a next stage starting early 2022 on the basis of this version 3.0.
- **(new !)** Rock glacier velocity (RGV), as an alternative name for RGK, has been accepted as a new product of the ECV Permafrost by both the [GTN-P](#) Steering Committee and [GCOS-TOPC](#). It will be included in the next GCOS implementation plan as well in the next GTN-P implementation plan (2021-2024).

### **Implementation phase**

- GCOS Switzerland has approved to support for the next two years the development of a service sustaining the activities of the Action Group and the implementation of a RGI-RGK database and visualization platform.
- **(new !)** Last summer we advertised a position to be filled within this framework. It is my pleasure to announce that **Sebastián Vivero** just started working on this topic at the Department of Geosciences at the University of Fribourg!

Among his main tasks, Sebastián will manage the communication within the Action Group (he will be the point person for all enquiries) and ensure the dissemination of our work. In the coming weeks you will certainly hear from him with additional information regarding the foreseen activities of the Action Group.

17 Newsletter 02.08.2021

New documents from the [IPA Action Group Rock glacier inventories and kinematics](#) are now available concerning the baseline and practical concepts for rock glacier inventories (RGI).

First, the **Baseline concepts** *towards the set-up of standard guidelines for inventorying rock glaciers*, which were released early 2020, have been slightly revised in a new version 4.2 : [RGI\\_BCv4.2](#). The preparation of the practical concepts for inventorying rock glaciers has shown that some baseline concepts were difficult to implement and needed some adaptation. It has essentially concerned the section 3b. The section 4 has also been shortened in order to avoid any repetition with the following practical concepts document (RGI\_PCv1.0).

Anyone can still approve the content of this document at any time and make the approval list longer by filling the dedicated online form (link at the beginning of the document)

Second, since the release of the baseline concepts, **practical aspects** have been worked on. It has resulted into two working documents, which are now waiting for **the feedback of the Action Group community until 15 September 2021**. Both documents are intended to be merged at a later stage. [RGI\\_BCv4.2.1](#) is an illustrated version of RGI\_BCv4.2. Only the illustrations (in chap. 3) are open to comment. [RGI\\_PCv1.0](#) is an additional illustrated chapter of the previous document. The entire content is open to comment by the Action Group community.

All illustrations are provided via a link toward an external online document. On each figure, you find coordinates that you can use (copy/paste) in Google Earth or else to get other views/images than the ones presented. Note also that the illustrations in RGI\_BC and the entire content of RGI\_PC are in a working stage. All is not perfect (content, phrasing, illustrations, figure comments, etc.). Feel free to suggest any improvement you could find necessary.

#### 16 Newsletter 01.06.2020

This e-mail provides some updated information about the activities of the [IPA Action Group Rock glacier inventories and kinematics](#). It is also the opportunity to welcome the new subscribers to the mailing list, which is now regrouping 155 persons from 23 countries !

Because the group has significantly grown for the last year and many of you were not taking part of the Action Group activities in earlier stages, a few words could be necessary about the history of the Action Group and its “way of doing”. The proposal to create this Action Group was submitted to the IPA (International Permafrost Association) in November 2017 and accepted by its Executive Committee. The Action Group was launched at the 5<sup>th</sup> European Conference on Permafrost (EUCOP5) in Chamonix, France, in June 2018. After a first phase of two years, the IPA renewed its support for two more years, and due to the delays caused by the pandemic, extended it **until June 2023**. The main idea of the Action Group is to federate scientists in view of establishing standard guidelines for inventorying rock glaciers (RGI) and developing/promoting the monitoring of rock glacier kinematics (RGK) as a permafrost-related climate variable for mountain regions. Two workshops have been organized in Switzerland in September 2019 and February 2020. Since then, two dedicated committees are accompanying both RGI and RGK developments. The members of the Action Group, namely all the subscribers to its mailing list, are regularly consulted to provide their feedback. All documents prepared by the Action Group are accessible on its website.

What is coming soon :

#### **Rock glacier inventories (RGI)**

The **Baseline concepts** towards the set-up of standard guidelines for inventorying rock glaciers ([BC, version 4.1](#)) were released in May 2020. Since then, these **practical guidelines** have been worked on as a stand-alone document. However, it has appeared that an integration into the Baseline Concepts document would be more suited. A first integrated version is expected to be provided to the Action Group members for feedback during the summer time (in northern hemisphere).

As a result of the Action Group Workshop II and in addendum to BC v.4.1, [baseline concepts for the integration of an optional kinematic attribute in rock glacier inventories](#) were prepared and already commented by the community. The final version will be released in the next months.

In addition to this, [InSAR-based practical guidelines](#) for the set-up of kinematics-based rock glacier inventories including a kinematic attribute have been edited in the framework of the [ESA CCI+ Permafrost project \(2018-2021\)](#) and their application tested by various operators in 11 regions on Earth. More info soon....

### **Rock glacier kinematic time series (RGK)**

*Rock glacier kinematics as a new associated parameter of the GCOS ECV (Essential Climate Variable) Permafrost* : resulting also from the workshop, a revision of the preliminary baseline concepts for producing and exploiting rock glacier kinematic time series in a climate-oriented perspective has been undertaken but was delayed due to the particular circumstances of the last year. They have been now revised by the participants to the workshop and will be submitted to the entire Action Group community during the next months.

### **Implementation phase (new !)**

GCOS Switzerland has approved to support the development of a service sustaining the activities of the Action Group and the implementation of a RGI-RGK database and visualization platform. This is in particular permitting a job opportunity at post-doc level to be proposed at the University of Fribourg (more info in a next e-mail).

### **Session at RCOP 2021**

A session dedicated to Rock glacier inventories and kinematics (session 19) will be organized by the Action Group at RCOP 2021 (24-29 October 2021).

15 Newsletter 25.09.2020

### **Updated news**

Baseline concepts towards the set-up of standard guidelines for inventorying rock glaciers: an updated version 4.1 was released in May 2020. In the continuation of the previous version, it is still submitted to your approval within the next months.

Practical guidelines for inventorying rock glaciers: Alessandro Cicoira and Nina Jones have worked on the preparation of the practical guidelines for inventorying rock glaciers for the last months, also with the support of Francesco Brardinoni (University of Bologna, Italy). They will make the first version available in a very few time.

Kinematics as an optional attribute of standardized rock glacier inventories (baseline concepts): as a specific first result of the Action Group Workshop II, which took place in February 2020, and in addendum to the general baseline document, the version 2.1 of the baseline concepts for the integration

of an optional kinematic attribute in rock glacier inventories has been prepared, launched and opened for comment in May 2020. Practical guidelines using InSAR have also been edited in the framework of the ESA CCI+ Permafrost project (2018-2021).

Rock glacier kinematics as a new associated parameter of ECV Permafrost: resulting also from the workshop, a revision of the preliminary baseline concepts for producing and exploiting rock glacier kinematic time series in a climate-oriented perspective is being undertaken but has been delayed due to the particular circumstances of the last months. They are expected to be submitted to the feedback of the entire IPA Action Group community before the end of the year.

#### 14 Newsletter 11.05.2020

##### **News and document open to comment**

Baseline concepts towards the set-up of standard guidelines for inventorying rock glaciers: an updated version 4.1 has been released. It is a slight adaptation and hopefully improvement of the previous version 4.0. No fundamental change has been implemented.

Practical guidelines for inventorying rock glaciers: I am pleased to announce that Alessandro Cicoira and Nina Jones have joined the Alpine Geomorphology research group at the University of Fribourg a few weeks ago and have started to work on the preparation of the practical guidelines for inventorying rock glaciers, also with the support of Francesco Brardinoni (University of Bologna, Italy).

Kinematics as an optional attribute of standardized rock glacier inventories (baseline concepts): as a specific first result of the Action Group Workshop II, which took place in February, and in addendum to the general baseline document, version 2.1 of the baseline concepts for the integration of an optional kinematic attribute in rock glacier inventories is now available and open for comment until 31 May 2020.

#### 13 Newsletter 31.03.2020

##### **Kinematical attribute (version 2.0)**

The version 2.0 of the baseline document regarding Kinematics as an optional attribute of standardized rock glacier inventories is now ready and waiting for your review until 14 April.

After integration of your feedbacks, the revised version 2.1 will be open to comment for the entire IPA Action Group hopefully by the end of April.

#### 12 Newsletter 05.03.2020

##### **ECV Permafrost Rock Glacier Kinematics - Answer to GCOS public review**

As discussed during the closing session of the Workshop II, the answer that we would like to send to the GCOS ECV public review is ready.

We would be glad if you could send us your feedbacks before Monday 9 March.

#### 11 Newsletter 13.02.2020

## **Workshop 2**

Workshop 2 was successfully held in Fribourg from 11 to 13 February. It has been a constructive and successful workshop. Thanks to all participants for their contribution!

The version 2.0 of the guidelines documents will be the result of discussions that took place during the Workshop II and are intended to be released at the end of March 2020.

10 Newsletter 06.02.2020

### **Comments to provisory documents on rock glacier kinematics (versions 1.0) available**

The versions 1.0 of (i) Kinematics as an optional attribute of standardized rock glacier inventories and the (ii) Rock glacier kinematics as a new associated parameter of ECV Permafrost are online.

Don't forget to approve the version 4.0 of the baseline concepts towards the set-up of standard guidelines for inventorying rock glaciers until 31 March 2020.

09 Newsletter 21.01.2020

### **Version 4.0 of the baseline concepts towards standard guidelines for inventorying rock glaciers on a global scale is now available online!**

This final version (4.0) is providing the basis on which standard practical guidelines will be defined. It is submitted to your approval until 31 December 2020 via this online form. The approval list will be regularly updated in the online version.

08 Newsletter 19.11.2019

### **Version 3.0 of the baseline concepts towards standard guidelines for inventorying rock glaciers on a global scale is now available online!**

The document is intending to provide a basis on which standard practical guidelines will be defined. It is open to comment until 15 December 2019.

07 Newsletter 15.10.2019

## **Workshop 2**

The Action Group workshop 2 will take place in Fribourg, Switzerland from 11th to 13th of February 2020.

It will be mainly dedicated to achieving Task 2 (see webpage): the preparation of "products" which could serve for monitoring rock glacier kinematics as an associated parameter of the ECV (Essential Climate Variable) Permafrost. In particular, it will focus on the definition of appropriate standards for monitoring the rock glacier activity at a regional scale to assess temporal trends with decadal to intra-decadal time steps (climate oriented purpose)

More info coming soon...

## 06 Newsletter 01.10.2019

### **Workshop 1**

Workshop 1 was successfully held in Evolène from 23 to 27 September. It has been an intense, exciting and founding week for the Action Group. Thank you to all participants for their contribution!

The version 3.0 of the baseline document will be the result of discussions that took place during the Workshop and is intended to be released in early November 2019.

## 05 Newsletter 12.04.2019

**Preparatory Workshop in Chambéry (FR):** The preparatory Workshop in Chambéry (FR) took place on 20 March 2019. The participants discussed and explored the feasibility of defining widely agreed standard guidelines for inventorying rock glaciers, including the information on the activity rate (see Task 1 of the Action Group). Based on different examples the experiences made on inventorying rock glaciers were presented, followed by a discussion on different aspects of rock glaciers and rock glacier inventories.

The value of rock glacier inventories ranges from making these landforms visible to persons of non-geomorphological background, to the scientific purpose of for example rock glaciers as proxy for past and current changes in permafrost occurrence.

However, the inventorying of rock glaciers requires a definition allowing to identify, characterize and finally inventory rock glaciers. Along with the definition the question about which characteristics (geometry, origin, etc.) should be considered. The discussions at the preparatory workshop showed that on some aspects a good agreement may be found quite easily though on other aspects the discussions open new questions and need further deepening.

A summary of the discussions is available [here](#). Further a more comprehensive document is in preparation.

## 04 Newsletter 08.02.2019

**Call for involvement in Task 2 (Mail from Chloé Barboux):** Time flies and we are already thinking about the task 2 of the IPA Action Group (tab “Tasks” of the website): “Preparation of “products” which could serve for monitoring rock glacier kinematics as an associated parameter of the ECV (Essential Climate Variable) Permafrost”

There is a call for proposals 2019 for International Teams in Space and Earth Sciences by the ISSI Bern (Switzerland) and we would like to grasp this opportunity of possibly getting financial and technical support for organizing a technical Action Group workshop specifically devoted to task 2 (subtask 1 only : “Use of satellite SAR interferometry, e.g. Sentinel-1A data, but more generally remote sensing data, for monitoring the rock glacier activity at a regional scale and definition of appropriate standards and guidelines”).

Actually, the ISSI can support a team composed of about 24 scientists to attend a one-week meeting (“Team Workshop”) at ISSI and/or ISSI-BJ during the foreseen period of activity (financial support: living expenses, accommodation, travel excluded; logistic support: meeting rooms, projection facilities, etc.). This would be a really nice opportunity for supporting this technical workshop.



As explained in a previous email, we hope that the workshop late September 2019 devoted to task 1 will be an opportunity to start with the task 2, perhaps with the support of the mountain permafrost option submitted under the ESA CCI+ Permafrost project... So the technical workshop dedicated to the task 2 (subtask 1) could/should be planned early 2020 (between mid-February and mid-April 2020), before ICOP 2020 in Lanzhou (June 2020).

Regarding ISSI requirements, the international team should consist of 8-15 members (up to 24 for one-week workshop) from different institutions (min 4 different countries, including ESA Member States). Team should have a good distribution across gender representatives of the field, a good mix of seniority and multi-disciplinary expertise for the project. However: any change to the core membership has to be avoided... That means that we should determine the team before the proposal submission!

Therefore, I make this call to you to know if you would like to be involved actively in the Task 2! Either as team member or team/co-team leader. And take the advantage of this opportunity to meet together at the ISSI early 2020. If so, and/or if you need more indication, please reply to this e-mail. Team leader(s) have to be determined before the deadline for letter of intent (February 18th ) and team members must announce themselves until March 15th!

### 03 Newsletter 29.01.2019

**Open position for the IPA Action group's scientific support:** It is a pleasure to announce that **Thomas Echelard** will work for the Action Group since March 2019 as a senior scientist.

Thomas' main research topic has focused on the use of remote sensing and GIS for detection, risks assessment and monitoring of moving landforms (rock glaciers, landslides, etc.). He got a doctorate in Physical Geography in 2014 at the Grenoble University (France) with a thesis entitled Contribution to the study of rock glaciers kinematics in the French Alps using differential radar interferometry (D-InSAR). He is currently working as research engineer for the PermaRisk project at the Grenoble University, in charge of collecting and managing rock glacier field measurement data for the French permafrost monitoring network.

Thomas will be enrolled for the Action Group until October 2019 on a part-time position granted by the research group in Alpine Geomorphology at the University of Fribourg.

**Preparatory Workshop I Chambéry (FR):** A preparatory workshop will be hold at the University of Savoie-Mont-Blanc (Bourget-du-Lac, France) on **Wednesday 20 March 2019**. This workshop is aimed to launch the preparation of the scientific material necessary for achieving the goals of the main workshop later in September, namely the definition of widely accepted standard guidelines for inventorying (mapping) rock glaciers in mountain permafrost regions, including indications on the activity rate (see Task 1 webpage). It will be organized by Xavier Bodin. More information will be posted soon on the Action Group webpage. Feel free to join this preparatory workshop and to announce your participation to [xavier.bodin@univ-smb.fr](mailto:xavier.bodin@univ-smb.fr).

### 02 Newsletter 10.01.2019

**Workshop I:** The IPA Action Group Rock glaciers and kinematics is planning the Workshop I for 23-27 September 2019 (2 days of workshop; 2-3 days excursion in the Swiss Alps). More information and

registration options will be published in March 2019. The main goal is to fulfill Task 1, so to set standard guidelines for inventorying rock glaciers.

We also hope that this workshop will be an opportunity to start with the next task of the Action Group: the preparation of “products” that can be used to monitor rock glacier kinematics as an associated parameter of the ECV (Essential Climate Variable) Permafrost, perhaps with the support of the mountain permafrost option submitted under the ESA CCI+ Permafrost project.

**Actions of members:** If you have any announcement, information, activity, publication, etc, you want to share with the subscribers of the Action Group mailing list you are welcome to send it us and we will forward it to the list and/or post it on the website.

#### 01 Newsletter 18.12.2018

The IPA Action Group Rock glaciers and kinematics has officially been launched at the EUCOP5 in Chamonix in June 2018.

Ongoing work includes the organisation of financial resources, the establishment of a state of the art on the research topic of rock glaciers and kinematics, as well as the planning of workshops and other actions to reach the goals presented.

So far, the following news can be announced:

**Action Group website:** A website dedicated to the Action Group is hosted by the University of Fribourg and is now open.

<https://www3.unifr.ch/geo/geomorphology/en/research/ipa-action-group-rock-glacier.html>

**Action Group newsletter:** News are not only going to be transmitted via internet but also via newsletter/ mailing list. The registration to the mailing list is possible through the form on the website.

**Action Group secretary:** Maria Winterberger (master student, University of Fribourg) will act as secretary officer and webmaster of the Action since January 2019.

**Action Group scientific support:** The research group in Alpine geomorphology at the University of Fribourg is granting a part-time position for supporting the activities of the Action Group during 6-9 months in 2019 (ideally March/April – October/December 2019). The position is primarily suited for an advanced PhD student or a post-doc researcher.

Results of this workshop will be then communicated for discussion through the mailing list / website as early as possible.