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**IPCC DDC USER SURVEY 2015: SUMMARY AND RESULTS**

# IPCC DDC User Survey 2015: Summary and Results

**Charlotte Pascoe**

TGICA *Ex Officio* Member (IPCC Data Distribution Centre)

Centre for Environmental Data Analysis, STFC Rutherford Appleton Laboratory, Harwell, UK

## Preface and document history

This document reports the results of an online User Survey of the Intergovernmental Panel on Climate Change (IPCC) Data Distribution Centre (DDC): <http://www.ipcc-data.org/>, which was prepared by the IPCC Task Group on Data and Scenario Support for Impacts and Climate Analysis (TGICA) and conducted between March 2015 and mid-November 2015. It was prepared at the request of a number of IPCC member countries in advance of the IPCC Expert Meeting on TGICA to be held on 26-27 January 2016 in Geneva. We are very grateful to Dr Charlotte Pascoe, from the UK node of the DDC, for co-ordinating the Survey and for undertaking this analysis.

An interim version of this report was distributed to IPCC Focal Points and to Executive Heads of International and other Organizations in November 2015, to assist Parties in addressing a vision paper on TGICA and the DDC for which responses were requested by the IPCC Secretariat. Since then additional responses have been received, results revised and an executive summary drafted. The report has also been reviewed and endorsed by the following members of TGICA: Timothy Carter, Stewart Cohen, Gregory Insarov, Martin Jukes, Martina Stockhause, Rachel Warren and Arthur Webb.

We thank Dr Pascoe and her colleagues for their work in developing and reporting this User Survey.

Timothy Carter and Bruce Hewitson (TGICA Co-Chairs)  
15 January 2016

## Table of Contents

Preface and document history .....	i
Table of Contents .....	ii
Executive Summary .....	1
1 Introduction.....	3
2 Types of respondents .....	4
3 DDC Resources .....	7
3.1 Examples of positive responses: .....	8
3.2 Examples of issues to do with the clarity of the IPCC DDC layout and content: .....	8
3.3 Examples of requests for more regional information and up to date data: .....	8
3.4 Examples of issues to do with data format and download: .....	8
4 Data .....	9
4.1 Examples of positive comments about IPCC DDC data: .....	10
4.2 Examples of critical comments about IPCC DDC data: .....	10
4.3 Requests for data at higher temporal resolution: .....	11
4.4 Criticism of IPCC science and process: .....	11
5 Guidance.....	13
5.1 Comments from users who found the guidance detail to be about right: .....	14
5.2 Comments from users who found the guidance to be too general: .....	14
5.3 Comments from users who found the guidance to be too specific: .....	14
5.4 Other suggestions for the guidance material: .....	15
5.5 Future guidance material.....	15
6 Other remarks or suggestions .....	17
7 Conclusions.....	18

## **Executive Summary**

An online survey of users of the Intergovernmental Panel on Climate Change (IPCC) Data Distribution Centre (DDC) was conducted between March and November 2015. The survey was intended to capture feedback from the diversity of users worldwide who visit and make use of the IPCC DDC website. 240 users responded and this report is a summary of their responses and a distillation of some of the key messages that have emerged.

## **Results**

### **Types of respondents.**

The survey participants were invited to select roles that applied to them, 65% of users identified with academic roles (student, post-doctoral researcher, other researcher and higher education teacher) and 35% with non-academic roles (government, private sector, NGO, teacher and other). 49% of respondents were regular visitors to the IPCC DDC who visit the site four times a year or more, 19% were infrequent visitors who visit the site once a year or less, and 32% had visited the site only once.

### **DDC Resources.**

Participants were asked about their interest in the IPCC DDC, the most popular themes identified by the participants were climate science and climate impacts, adaptation and vulnerability. The most popular resources used by the participants were the IPCC DDC Data files. However, there was a fairly even distribution of interest in the other resources that are available on the website such as the information on our web pages, our guidance material and our data visualisation service. Respondents also reported making use of the video information. The IPCC DDC resources met the participant's expectations in 85% of cases.

### **Data.**

The most popular kinds of data used by the survey participants were the observed climate baseline data and data from climate model projections. Participants have used IPCC DDC data for many different purposes, 50% of respondents have used the data in published research, 39% have used the data for teaching materials and 17% have used the data to support policy decisions. The IPCC DDC data met the participants' expectations in 84% of cases and 76% of respondents were satisfied with the data formats used by the IPCC DDC.

### **Guidance.**

The guidance material that is available on the IPCC DDC website had been used by 55% of survey respondents and 65% of those users found the level of detail of the guidance information to be about right. The most popular suggestions for additions to the existing guidance material were to have more worked examples and links to case studies. Participants were asked to rank proposals for future guidance documents, the topics that were given the highest priority were working with observed climate data, choosing climate datasets for use in impact assessment, bias adjustment of regional climate projections and the detection and attribution of observed impacts.

## **Messages for future DDC development**

### **Accessibility for non-technical users**

There are many users from outside of the research community who make use of the IPCC DDC, which reflects the growing interest in climate information from outside of academia. However, in our user survey, these non-technical users were more likely to report that they found the IPCC DDC resources to be complex and difficult to understand. If we are to broaden the reach of the IPCC DDC beyond academia then we need to improve how we cater for non-academic users who don't have access to the kind of support networks and infrastructure that are available to users in academic institutions. This could be achieved through improvements to the site structure and the provision of non-technical material to support a wider user community. Such improvements would also act to broaden the reach of the IPCC DDC to academic users from other disciplines, such as ecologists, geographers and economists.

### **Improve data access and usage**

The data provided by the IPCC DDC met the survey participant's expectations in 84% of cases; however, when we looked at how the experience of academic users contrasted with those of other respondents we found that the latter groups experienced different kinds of challenges. Non-academic users told us they had difficulty finding the data they wanted and that the data explanations were sometimes too detailed. These users also questioned the need to download large global data files when what they wanted was data for specific geographical regions. The challenges associated with downloading large data volumes were also raised by academic users, from whom we received suggestions such as a need to provide support for the batch downloading of data.

Improving the access to IPCC DDC data will benefit all users. Some functions that users lamented the absence of, such as being unable to extract regional subsets of data, are actually available on the website, but it is apparent that these features could be presented more clearly. We plan to make the downloading of data easier by enhancing our web-tools for the visualisation and extraction of data. We also received requests to improve the linking to other online resources of climate data. This is something that we are working on under guidance from the TGICA.

### **Provision of regionally specific data and information**

Users would like to make sense of climate information in terms of local changes, and there is a growing demand for data at higher temporal and spatial resolution for use in driving climate impacts models. The IPCC DDC does provide guidance on how to use statistical and dynamical downscaling to generate data at higher spatial and temporal scales, but it is clear from the responses we received that this information needs to be easier to find.

### **Development and provision of guidance material**

The IPCC DDC is designed primarily for climate change researchers, but given the growing interest in climate information, should the IPCC DDC provide further support for people outside the climate change research community? If so, this would need a change and clarification of the objectives of the IPCC DDC website e.g. education vs. guidance for policy practitioners vs. information for the general public.

## **1 Introduction**

An online survey of users of the Intergovernmental Panel on Climate Change (IPCC) Data Distribution Centre (DDC) was conducted between March 2015 and mid-November 2015. This is the third such survey that has been conducted during the 18-year lifetime of the DDC. It was intended to capture feedback from the diversity of users worldwide who visit and make use of the DDC website. Primary target groups were climate change researchers in academic and research organisations who undertake research assessed by the IPCC, but an increasing number of users are drawn from other professions and backgrounds, and a key aim of the survey was to gain a better appreciation of who these users are and why they visit the DDC.

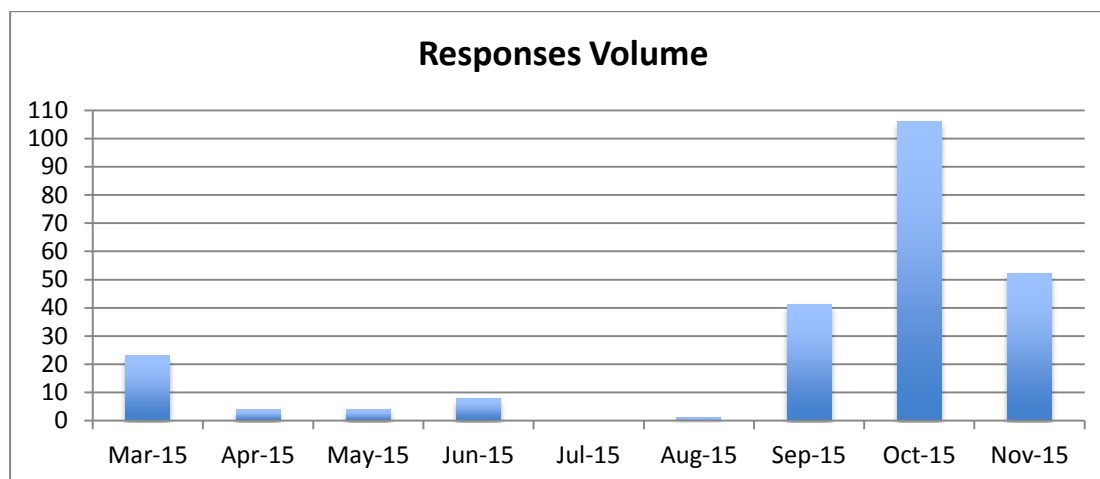
The Survey was designed by members of the IPCC Task Group on Data and Scenario Support for Impacts and Climate Analysis (TGICA) under the co-ordination of Dr Charlotte Pascoe. It comprised 16 questions sub-divided into five groups:

- About you (four questions about the user's background and use of the DDC)
- DDC resources (two questions concerning the types and usefulness of DDC resources used)
- Data (five questions about the types of data accessed, value of the data and methods data format and analysis)
- Guidance (six questions concerning the use of guidance material and user-preferences concerning level of detail, format and topics covered)
- Other remarks (an open question for any other observations or suggestions)

In order to make the survey as inclusive as possible, none of the questions were compulsory and could be skipped if regarded as irrelevant to a user's experience. The open question at the end of the survey was designed to offer users the chance to raise issues not covered adequately by the questions provided.

The survey could initially be linked to only via the homepage of the IPCC DDC website. Only modest response was reported in the three months from the launch March 2015 to the TGICA-22 meeting in June 2015 (Figure 1). It was therefore decided to advertise the survey more widely as well as linking to it from the main IPCC website homepage. Registered users of the IPCC DDC were invited to participate by email and announcements of the survey were also sent to the participants of IPCC expert meetings and workshops held in 2015 and to mailing lists held by the following groups: UNEP/PROVIA, VIACS-AB, CLIMLIST, CLIVAR, GEWEX as well as other regional contacts. In addition, information about the user survey was circulated to IPCC Focal Points and executive heads of international and other organizations that have IPCC Observer Status. Uptake was significant from September 2015 to the close of the survey on 16 November 2015 (Figure 1).

Overall, there were 240 responses to the survey, which are summarised in this report. The following five sections are structured according to the groups of questions posed, with a final section (7) reflecting on some of the key messages that emerged and what these may mean for operating and developing the DDC in the future.

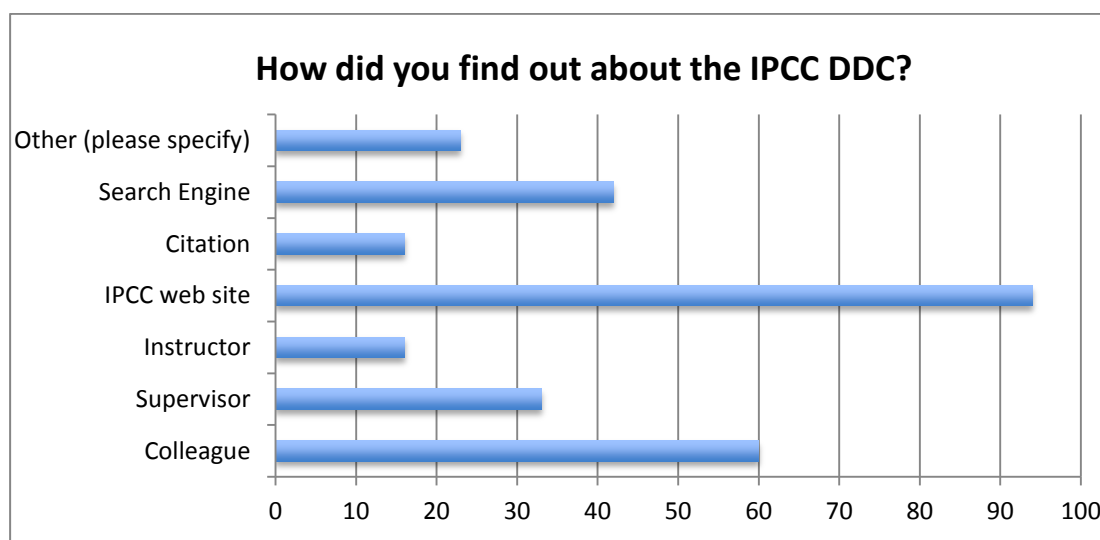


**Figure 1.** Survey response volume by month (March-November 2015)

Unless otherwise stated, the numbered axes on the charts presented in this report are indicative of the number of responses in a given category.

## 2 Types of respondents

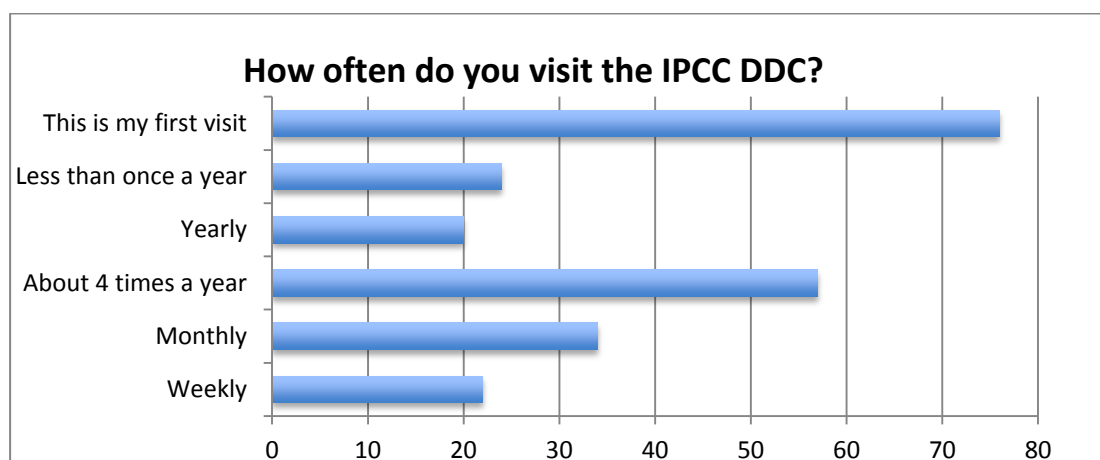
The first part of the survey established information about the survey participants. We asked respondents to tell us about how they found out about the IPCC DDC and how frequently they used the website. We also asked them to tell us about their role and which aspects of the IPCC DDC were important to them.



**Figure 2.** The number of responses to the question “How did you find out about the IPCC DDC?” Participants were able to select more than one category. The question was answered by 211 respondents.

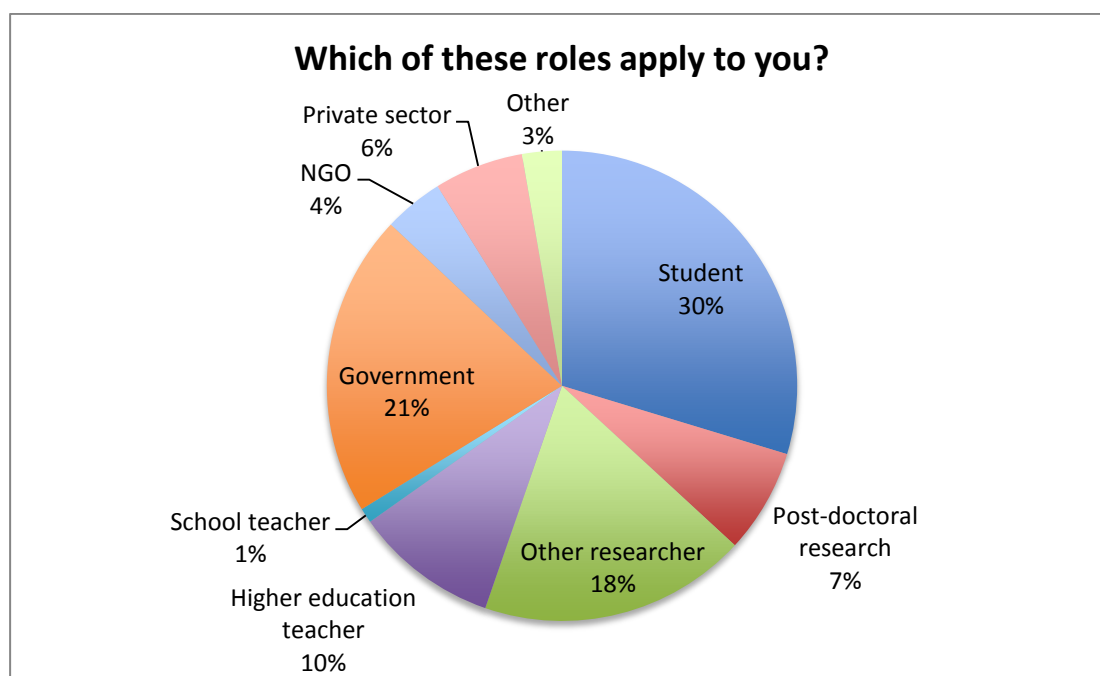
The most popular ways for respondents to find out about the IPCC DDC were from the IPCC website and from colleagues (Figure 2). In addition many respondents told us they discovered the IPCC DDC via an email invitation. Some respondents had worked closely with

the IPCC DDC in the past and have maintained an interest and others had discovered the DDC via collaborative projects on which they were working. Two respondents noted finding out about the IPCC DDC via a textbook.



**Figure 3.** The number of responses to the question “How often do you visit the IPCC DDC?” Participants were able to select only one category. The question was answered by 233 respondents.

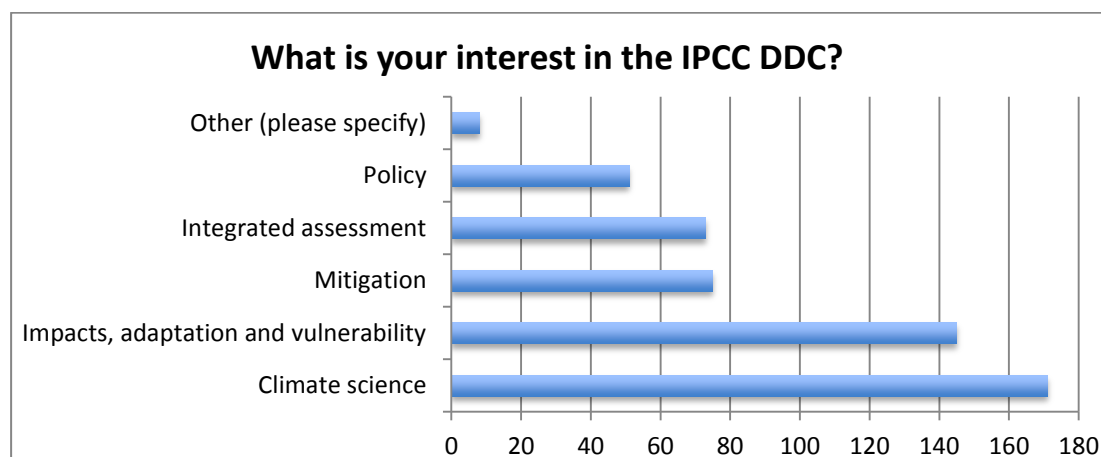
For many survey participants this was the first time that they had visited the IPCC DDC. However, there were a significant number of regular visitors, nearly half of the survey respondents visited the website four times a year or more (Figure 3).



**Figure 4.** The percentage response to the question “Which of these roles apply to you?” Participants were able to select more than one category. The question was answered by 233 respondents.



Respondents were invited to select roles that applied to them. 65% of respondents identified themselves with academic roles such as student, post-doctoral research, other researcher and higher education teacher. The largest non-academic use of the IPCC DDC was from respondents who identified themselves with the government role (21%) (Figure 4). Other roles that the respondents identified themselves with were consultant and engineer, concerned citizen and educator.

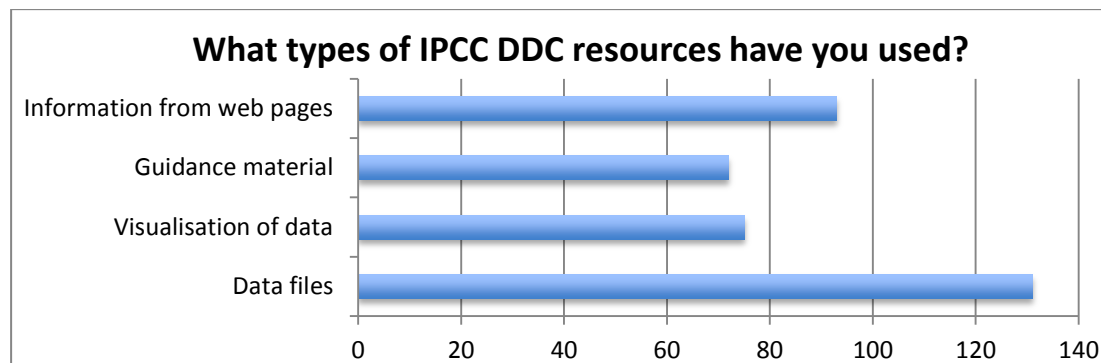


**Figure 5.** The number of responses to the question “What is your interest in the IPCC DDC?” Participants were able to select more than one category. The question was answered by 230 respondents

Participants were asked about their interest in the IPCC DDC. The most popular themes identified by the participants were Climate science and IAV (Impacts, Adaptation and Vulnerability) (Figure 5). Other reasons for interest in the IPCC DDC that the respondents told us about were to support climate smart agriculture, for use as a teaching resource and for their personal understanding of climate science.

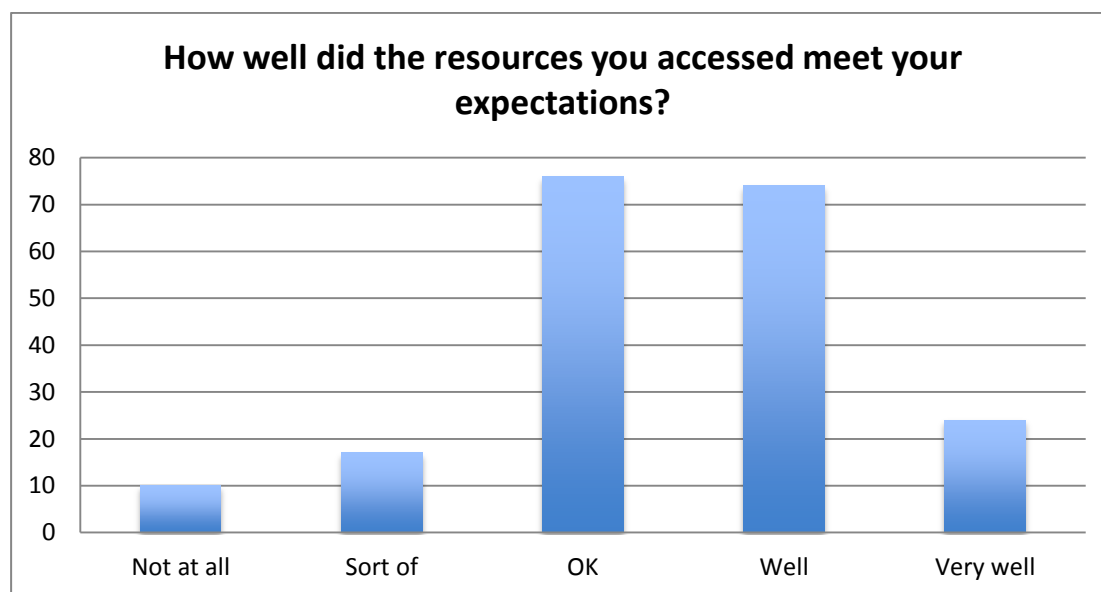
### 3 DDC Resources

We asked the survey participants to tell us about what IPCC DDC resources they had made use of and how well those resources had met their expectations.



**Figure 6.** The number of responses to the question “What types of IPCC DDC resources have you used?” Participants were able to select more than one category. The question was answered by 198 respondents.

Data files were the most popular resource accessed by the survey participants. However, there is a fairly even distribution of interest in the other resources that are available on the DDC website (Figure 6). Respondents also reported making use of the video information.



**Figure 7.** The number of responses to the question “How well did the resources you accessed meet your expectations?” Participants were able to select only one category. The question was answered by 201 respondents.

The resources provided by the IPCC DDC met the participant’s expectations in 87% of cases (Figure 7) nevertheless we received useful constructive criticism from our respondents.

### **3.1 Examples of positive responses:**

- It is a nice, consolidated setup with a lot of key information that is otherwise difficult to find with confidence.
- The data were in a familiar type (NetCDF) and it was easy to use them by programming in matlab.
- Used these data for climate change analysis of principal crops on regional level.
- I employed statistical downscaling on the IPCC DDC output for my thesis.
- I got real data for GIS exercises.
- I like to learn more about one of our times greatest challenges and share this info with others on social media. Very good research summaries although data is lacking from some areas, i.e. contribution of methane from melting permafrost.
- Learnt the difference between the RCPs and the old scenarios.
- Love that you have these files available.

### **3.2 Examples of issues to do with the clarity of the IPCC DDC layout and content:**

- It's not the most user-friendly website to negotiate
- I'm not familiar enough to this website and cannot use it well.
- Purpose of the site is not obvious.
- The Information provided at this web site is presented in a rather scientific way most suitable for experts. It is not so useful for outsiders. E.g. the information about the scenario process is not so easily accessible.

### **3.3 Examples of requests for more regional information and up to date data:**

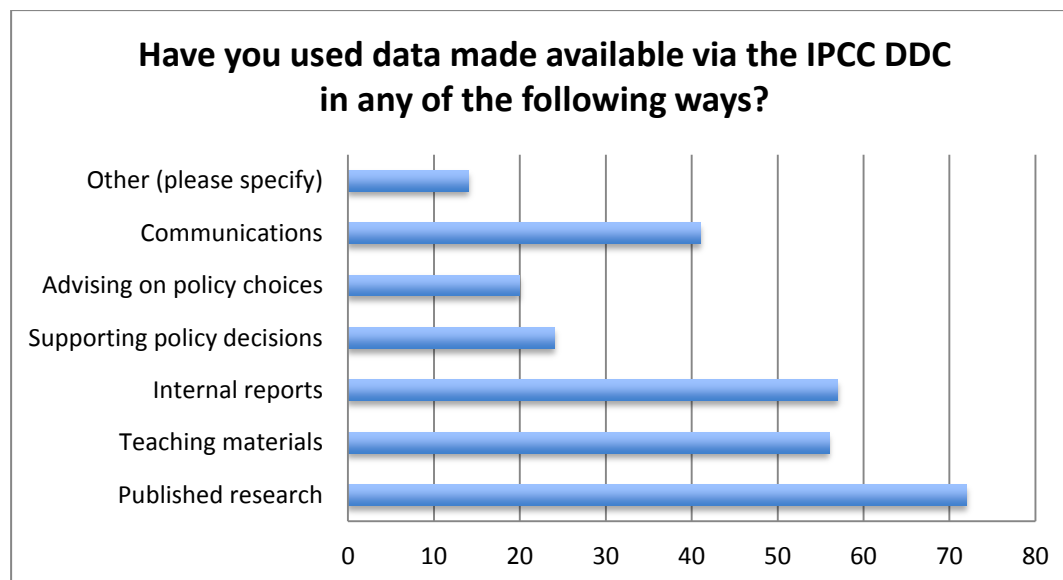
- Sometimes it is hard to find information about specific places.
- local data was not available.
- Data not as current or comprehensive as necessary for broad usefulness.

### **3.4 Examples of issues to do with data format and download:**

- The process for accessing the data is not clear and could be much easier - several websites were visited and there is too much information put on each page. Other derivative statistics which describe or relate to an impact could be added. A clear process for accessing, sub setting and downloading via the command line is needed.
- Well for AR4-SRES scenarios, but now I have difficulties to obtain anomalies for temperature and precipitation for my area of Interest for CMIP5 (e.g. rcp4.5). I need interface like previous data file navigator.
- Downloading takes forever. Would be nice to download more than one file at a time.
- A search option so you can type in a key word and locate a specific file you are looking for would be easier.
- The access through CMIP5 portal was easier 2 years back. Now the server often does not let the data download happen probably due to location or server limitations.
- One of the big disadvantages of the data are the various format of row data based on various sources. It can be better if a common format was defined (or data converted to a common format).
- The IPCC DDC focuses on "raw" GCM output. I was looking for the processed data used to create figures and maps in the IPCC AR5 TS and SPM, which I was unable to find.

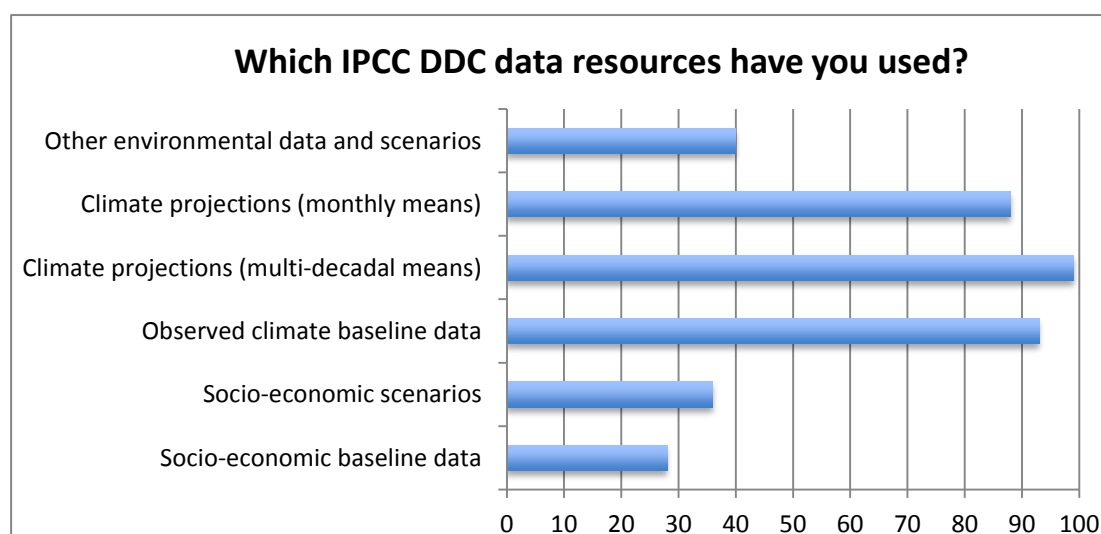
## 4 Data

We asked the survey participants to tell us about their experiences accessing and using the data that is available on the IPCC DDC and how they go on to make use of it.



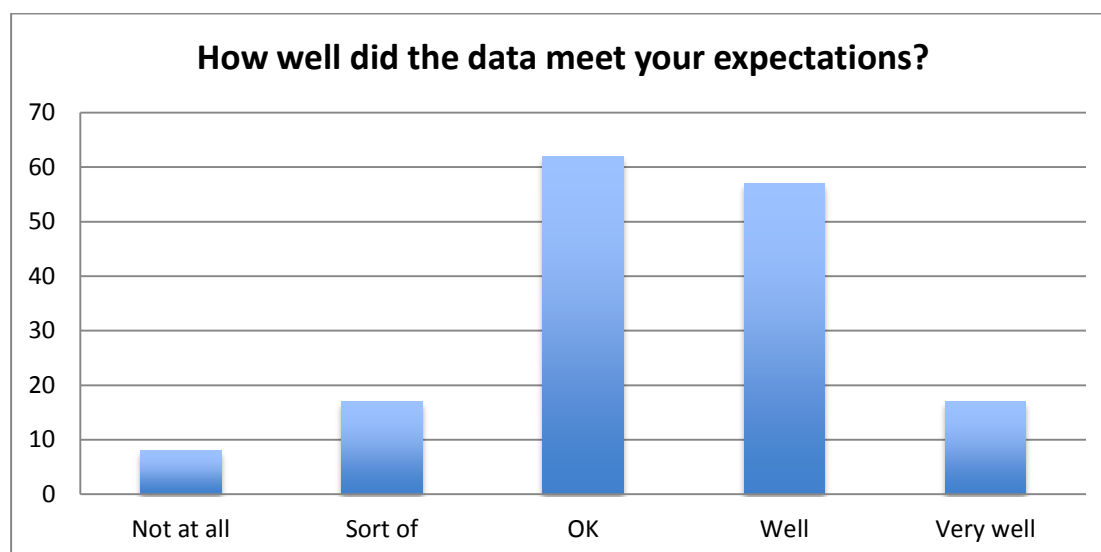
**Figure 8.** The number of responses to the question “Have you used data made available via the IPCC DDC in any of the following ways?” Participants were able to select more than one category. The question was answered by 144 respondents.

We asked about how IPCC DDC data is used, 50% of the respondents who answered this question told us that they made use of IPCC DDC data in published research. Teaching materials, internal reporting and communication were also popular reasons to use the IPCC DDC data (Figure 8). In addition to the uses listed above, participants also stated that they had used data from the IPCC DDC for planning and input into the IPCC process, to support scenario generation tools for the broader community and also for their own purposes.



**Figure 9.** The number of responses to the question “Which IPCC data resources have you used?” Participants were able to select more than one category. The question was answered by 150 respondents.

We asked about which IPCC DDC data resources are used, 66% of the respondents who answered this question made use of the multi-decadal climate projection data, with similar numbers of respondents making use of the observed climate baseline data (62%) and the monthly mean climate projections (58%) (Figure 9).



**Figure 10.** The number of responses to the question “How well did the data meet your expectations?” Participants were able to select only one category. The question was answered by 161 respondents.

The data provided by the IPCC DDC met the participant’s expectations in 84% of cases (Figure 10).

#### 4.1 Examples of positive comments about IPCC DDC data:

- It was an easily accessible and understandable set of data and predictions.
- We use multi-model data output, which provide the probable result.
- Good explanation of the scenario process in AR5.
- Once I figured out how to use it I had no problem other than some datasets being hung up or unavailable from time to time.

#### 4.2 Examples of critical comments about IPCC DDC data:

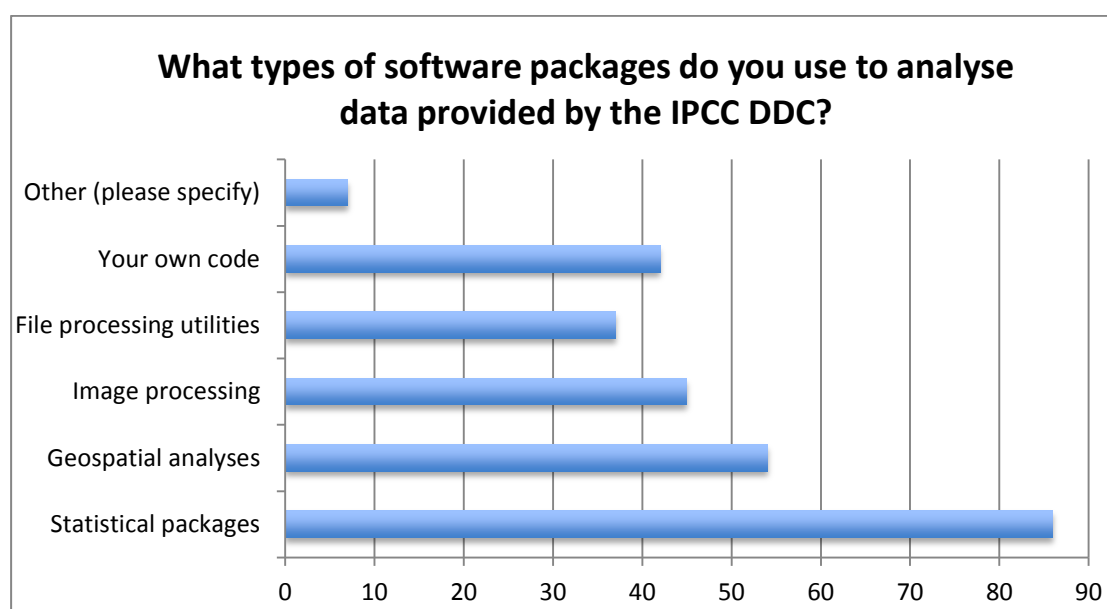
- Hard to find what I wanted.
- The socio-economic scenario information was only provided on the website without any further indication that there have been updates.
- Data required too much explanation on acronyms, models and methods.
- Couldn’t find how to download the future climate data for my region.
- Still looking to make a sense of it (I am 54)
- For publication purposes, the data is acceptable with a wide range of peer review-ship. However, the uncertainty in the climate projections by CMIP5 leaves the policy makers with ambiguity, and they are less likely to implement the adaptation packages scientists propose to them.

#### 4.3 Requests for data at higher temporal resolution:

- Input data needed for statistical downscaling tools such as SDSM, LARS-WG are not renewed till now.
- Boundary condition data for regional climate modelling system PRECIS isn't available.
- Too general both on the time dimension and spatially.
- We could not find daily climate information for using in estimating the evolution of the climate variables.
- The materials are very general and lack regional value.
- Observational data for climate in IPCC-DCC is rather limited

#### 4.4 Criticism of IPCC science and process:

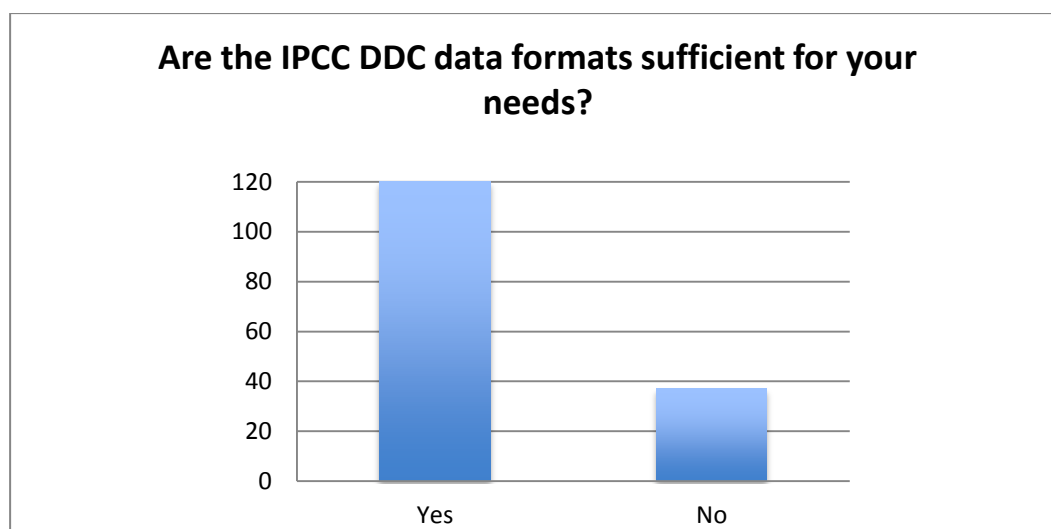
- I could tell that the majority of the data were gap filled - I knew the areas and actual observations are rare.
- Not all the factors are taken into account and only the tip of the iceberg is related to the obvious.
- Observed CO<sub>2</sub> increase without ambient temperature trend support since 1998. Not supposed to happen according to IPCC



**Figure 11.** The number of responses to the question “What types of software packages do you use to analyse data provided by the IPCC DDC?” Participants were able to select more than one category. The question was answered by 140 respondents.

The survey participants told us that they use many different kinds of software packages to analyse the data provided by the IPCC DDC. Over 60% of respondents to this question use some kind of statistical package to analyse their data (Figure 11). Other software packages specified by the survey respondents were:

- |          |          |                   |
|----------|----------|-------------------|
| • R Stat | • NCL    | • CDO             |
| • QuadUI | • Matlab | • climexp.knmi.nl |
| • ACMOUI | • GrADS  |                   |



**Figure 12.** The number of responses to the question “Are the IPCC DDC data formats sufficient for your needs?” Participants were able to select only one answer. The question was answered by 157 respondents.

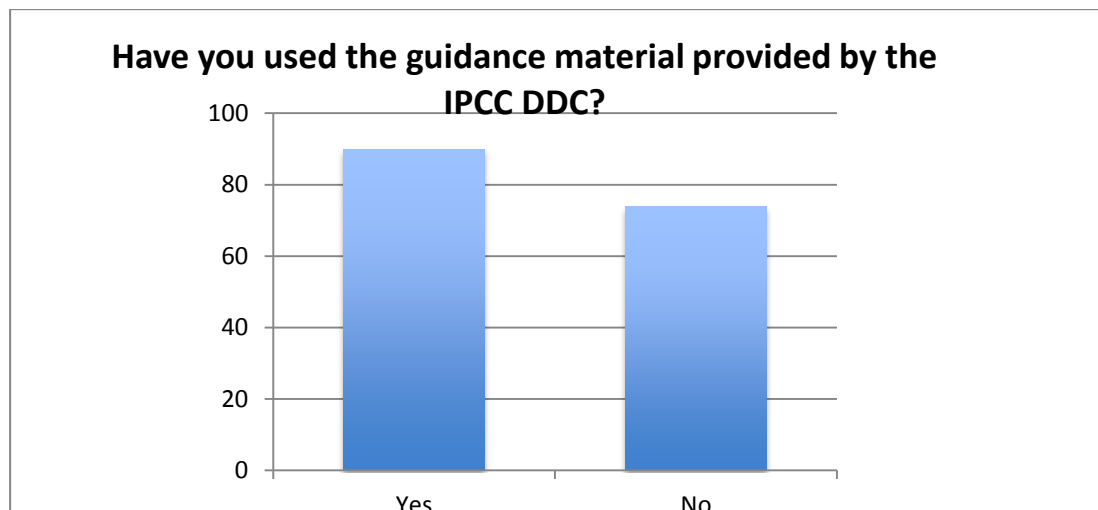
The data formats provided by the IPCC DDC were sufficient for the needs of 76% of the survey participants (Figure 12). Other data formats requested by the survey participants were:

- xls
- .csv
- .nc (NetCDF Files)
- .nc4
- .dta
- .sav
- .txt
- GIS-compatible

Some respondents also requested better support for the sub-setting of data, data at daily resolution and finer spatial scales and data in formats that are directly usable for reproducing figures and maps in the IPCC reports.

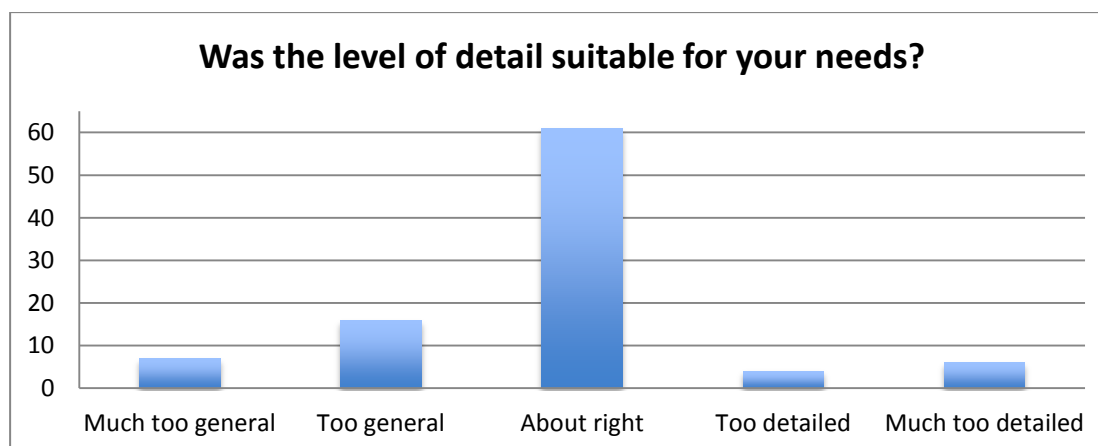
## 5 Guidance

We asked participants to tell us about their experience using the guidance material provided on the IPCC DDC and how it might be improved.



**Figure 13.** The number of responses to the question “Have you used the guidance material provided by the IPCC DDC?” Participants were able to select only one answer. The question was answered by 164 respondents.

We asked about whether the respondents had used the guidance material, 55% of the respondents who answered this question had made use of the guidance material (Figure 13).



**Figure 14.** The number of responses to the question “Was the level of detail suitable for your needs?” Participants were able to select only one category. The question was answered by 94 respondents.

We asked the survey participants who had used the IPCC DDC guidance material to tell us how satisfied they were with the level of detail. The majority of participants found that the detail provided was sufficient for their needs but of those that were dissatisfied, there was a sense that the level of detail was too general, although it is clear that some users found the information to be too detailed (Figure 14).



### 5.1 Comments from users who found the guidance detail to be about right:

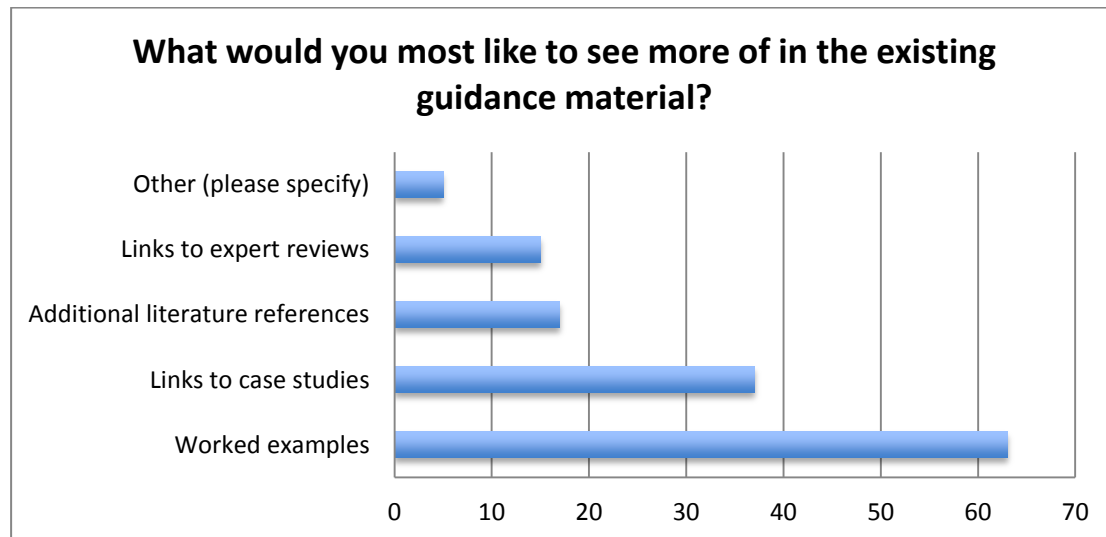
- But not sure it would always be totally accessible to people with a non-academic background in this field.
- I think the IPCC info should be general. I know many others would like very detailed guidance, but I do not think this is the role of the IPCC -- should be national governments and others.
- It went into detail, but wasn't overwhelming.
- I am able to figure out what I need.

### 5.2 Comments from users who found the guidance to be too general:

- I tried to use the projections over Iran by programming in matlab, but there was no general guidance about NetCDF files in IPCC DDC.
- No in depth information.
- There needs to be more explanation on how the data was generated and more specific guidance documents on how the data should be used (or not used).
- Not specific enough on key issues.

### 5.3 Comments from users who found the guidance to be too specific:

- Very difficult to develop climate change displays using your data as it is geared to high level of knowledge of the specific science applied.
- The material is too big ... needs to be broken down into more modular / short fact sheets to facilitate access.
- ... and too scientific.



**Figure 15.** The number of responses to the question “What would you most like to see more of in the existing guidance material?” Participants were able to select only one category. The question was answered by 132 respondents.

The most popular suggestion for additions to the existing IPCC DDC guidance material was to provide more worked examples which was requested by 47% of respondents (Figure 15). The inclusion of worked examples would go some way towards resolving the criticism that the guidance material is too detailed.

## **5.4 Other suggestions for the guidance material:**

We asked the survey participants to tell us if there was anything else that they would like to see changed about the guidance material on the IPCC DDC. They told us:

- Overview of datasets, methods/tools for processing data
- Info about data quality,
- Overview of guidance material
- Simpler language for non-experts
- Up to date information from AR5
- Information closely linked to the assessment process in a transparent way
- Some of the guidance material has become dated (e.g. from over 10 years ago), so updating some of the guidance would be good
- An online-based resource (with links etc.) that could be updated would be useful  
It seems the DDC is not linking itself sufficiently to other major databases by the community.
- Guidance material needs to be region and problem specific.
- Put many African cases.
- There is a need for standardized tools to process the data rather than gleaning information... from different sources.
- More materials definitely needed on controversial topics, such as contradictions between different data sets, and how to develop regional information.
- More guidelines on statistical downscaling.
- More guidance material on mitigation.
- Should be made comprehensive so that the user spends least amount of time in guideline and most on practical usage.
- I work on coastal areas -- coastal climate and other scenarios could be better developed. I do not think the IPCC DDC supports coastal assessment as well as it might.

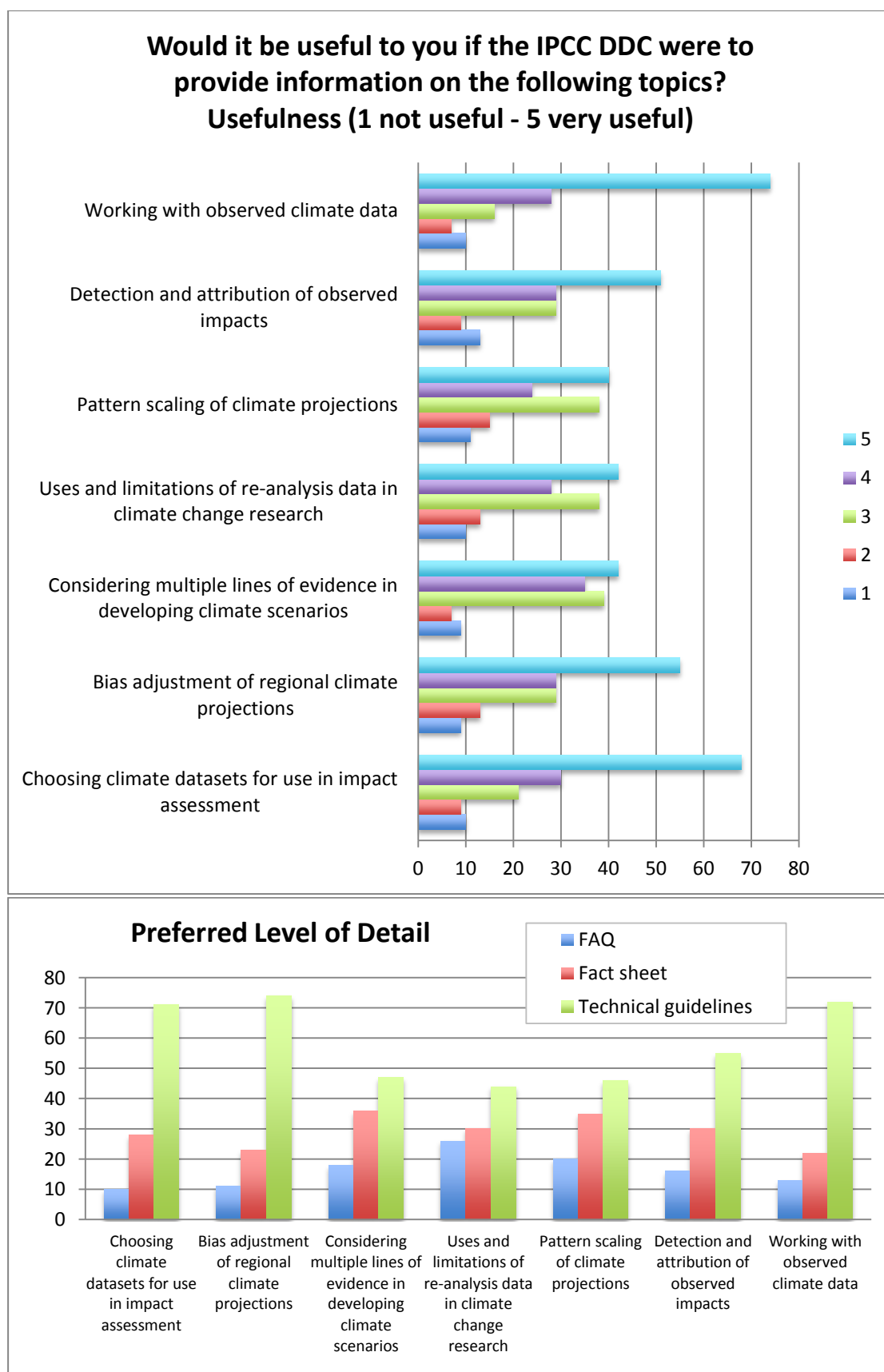
## **5.5 Future guidance material**

We asked the survey participants to tell us about their priorities for future guidance material that might be made available via the IPCC DDC by scoring our proposals for additional material from (1: not very useful to 5: very useful) (Figure 16).

The proposals for new guidance material topics that were given the highest scores by the survey participants were:

- Working with observed climate data
- Choosing climate datasets for use in impact assessment
- Bias adjustment of regional climate projections
- Detection and attribution of observed impacts

Technical guidelines were generally thought to be the most appropriate form to communicate these topics.



**Figure 16.** The number of responses to the question “Would it be useful to you if the IPCC DDC were to provide information on the following topics?” Participants were able to rank each category once. The question was answered by 141 respondents.

## 6 Other remarks or suggestions

We asked the survey participants to tell us if they had any final remarks they wished to share, this is what they told us:

- An abbreviated section for general public that illustrates the trends, impacts and mitigation summaries of results presented without need of knowing ANY acronyms, or expertise of various sciences.
- If it was possible to make some national centres in coterries to manage each country projection and manage their native researches, it will help researchers to improve their researches in quality and quantity.
- The DDC could be much more useful than it has been so far. In a survey we performed (members of VIAC for CMIP6) we found that impacts/assessment people seldom used the DDC. This was a tad depressing. For it to be truly useful, it needs to be used by more people. A more in depth analysis of why it isn't being used needs to be undertaken.
- Increase more awareness about DDC since it is very useful for researchers.
- Working with ensembles is not as easy as some people think. Some guidance will be useful as well as on the use of RCPs data sets.
- We're in the internet era and all information is available and cross-linked. The most important question for the DDC seems to be also how it is going to cross-link its information to other data providers. A more holistic and comprehensive strategy could leverage DDC resources beyond just following its own strategy. In this context, I was surprised not to read a single question about the need to establish more formal and better linkages across the existing community science networks and data providers (IAMC, CMIP, etc.).
- General observation: As user of your data for general public I find your data is sometimes very difficult to present. It would be a great benefit to be able to select data, graphs and trends and summaries that are geared to the general public.
- Expert guidance is critical – we need more information about when certain approaches are advisable or potentially problematic. Many methods are more tailored to specific application than most recognize. We need to help the community to understand when complex approaches are necessary and what the real added value is.
- The DDC is something seen as authoritative, and so could valuably touch on more subjects. Regional (decision-scale) support is the highest priority.
- Suggest IPCC DDC should be kept updated rather than just a snapshot.
- Improved data resolution is very important for regional climate change studies...
- Kindly make batch downloads more easier and user friendly on multiple operating systems like Windows. The data download in CMIP5 may also incorporate shrinking of the data to a specific region so that regional data of GCM may also be downloaded instead of downloading the global data file.
- The products provided by the DCC did not undergo the usual multistep review process of the IPCC. For transparency reasons, information on the establishment and on quality control of DDC-products should be included on the web site.
- Data is only as useful as its description - so if provided should have full technical documentation

## 7 Conclusions

The IPCC DDC is doing a good job at supporting the core user community of climate scientists and researchers, indeed the most popular use of our data is for published research. Nevertheless the survey respondents have helped to identify a number of opportunities for us to develop and update the IPCC DDC website, including:

- Guide non-academic users towards more information-centric content
- Add more worked examples to the guidance material
- Provide clear and easy to find advice for users who need data at high temporal resolution
- Provide more regional data and information
- Provide timely access to IPCC data
- Improve the data download experience
- Include links to other climate data providers
- Do a better job at advertising the existence of the IPCC DDC

There is a clear separation between those users who are comfortable about using the IPCC DDC data and resources and are requesting more specific information about our data and resources and those users that find the website difficult to navigate and the information confusing. If we are to do a better job at supporting more general users it will likely necessitate creating a separate area where the content is better tailored to their needs.

Some users would like to see more up to date data made available on the DDC. What is our remit for this? If the IPCC DDC is restricted to the provision of data that has been used to inform IPCC assessments we need to make it clear that the IPCC DDC won't be the most cutting edge place to get data but it will be authoritative.

The 2015 IPCC DDC user survey received 240 responses which is a 30% increase on the response rate for the previous survey that we held in 2009. The number of users answering each question did fall as the respondents progressed through the survey pages but we received upwards of 140 responses for most questions, even at the end of the survey. Nevertheless it may be better to make shorter more targeted surveys in the future given the drop off in the response rate. When we next instigate a user survey it would be helpful to find out more about the roles of our respondents. If we want to find out about the capacity building potential of the IPCC DDC, we will need clearer information about the "research" versus "learning" use of the website.

Notwithstanding the undoubted shortcomings of the DDC, it is always heartening to receive feedback from a satisfied user:

*"Thanks to your page because it helped me to finish my thesis. Thanks!"*