

TRAVEL REPORT FORM
출장보고서

결 재	선임연구 원	과장	부서장	원장
	10/31	11/04	11/04	11/04
협 조	한정민	민영미	유진호	권원태

I. Travel Overview 출장개요

1. Traveler(s) 출장자

Department 소속	Position 직위(직급)	Name 성명	Note 비고
예측운영과	선임연구원	한정민	

2. Travel Period 출장기간

- 2019년 10월 14일 ~ 19일

3. Occasion and destination 행사 및 출장지

- 행사명: ICRC-CORDEX2019
- 출장지: CNCC (China National Convention Center), Beijing, China
- 일정

일시	출발지	도착지	업무수행 내용	비고
10/14	부산	베이징	이동	
10/15~18	베이징		- 컨퍼런스 참석 및 논문 2편 발표 - “CORDEX 동아시아 지역의 ESGF 소개 및 응용” 세션(D5) 운영	10/17
10/19	베이징	부산	이동	

II. Major Activities 주요업무 수행내용

1. Main Contents and Activities 주요내용 및 활동

가. 주요내용

- ICRC-CORDEX2019 (International Conference on Regional Climate - Coordinated Regional Climate Down-scaling Experiment 2019)는 고해상도 지역기후정보와 응용에 초점을 맞춰 3년마다 기술교환, 서비스 확장, 새로운 협력 구축 기회 제공을 목적으로 개최되는 CORDEX 국제 컨퍼런스로 WCRP의 주요 프로젝트(GEWEX, APARC, CLiC, CLIVAR) 소개와 지역상세화, 기후변화의 영향 등 약 340여 편의 논문발표가 진행되었다.

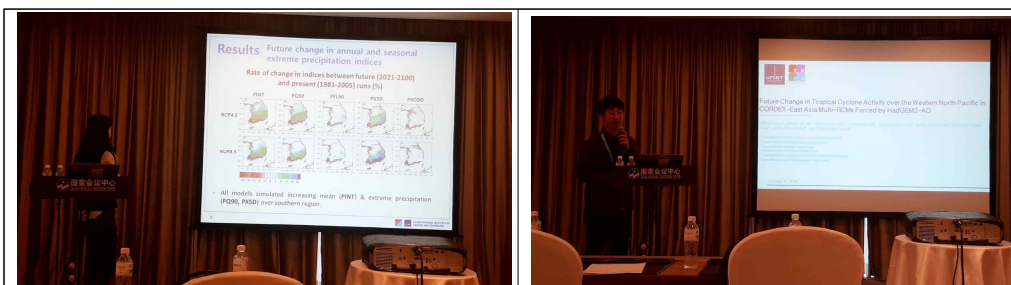


<ICRC-CORDEX2019 행사장>

- CORDEX 도메인은 14개로 구성되어 있으며 그 중 유럽국가(EURO Domain)를 중심으로 영국, 독일, 프랑스, 이탈리아, 스웨덴에서 온 참석자들이 가장 많았으며 아프리카 지역(Africa Domain)과 남아메리카(South America Domain), 남아시아 지역(South Asia Domain) 그리고, 중국, 한국, 일본이 포함된 동아시아 국가(East Asia Domain) 등 약 800여명이 참여하였다.

나. 주요활동

- 이 컨퍼런스에서 “CORDEX-EA 지역의 ESGF 데이터 노드와 응용 연구”를 주제로 한, D5세션을 운영하였으며 총 8편의 학술논문이 발표되었다. D5세션에서 CORDEX-EA 데이터 센터의 현황과 운영방향과 CORDEX-EA 자료를 배포하는 ESGF 데이터 노드 구축, 데이터를 배포하기 위한 메타데이터 생성방법, 그리고 CORDEX-EA 자료를 활용한 응용연구 결과들이 발표되었으며 다양한 질의와 의견교류를 하였다. (붙임.1)

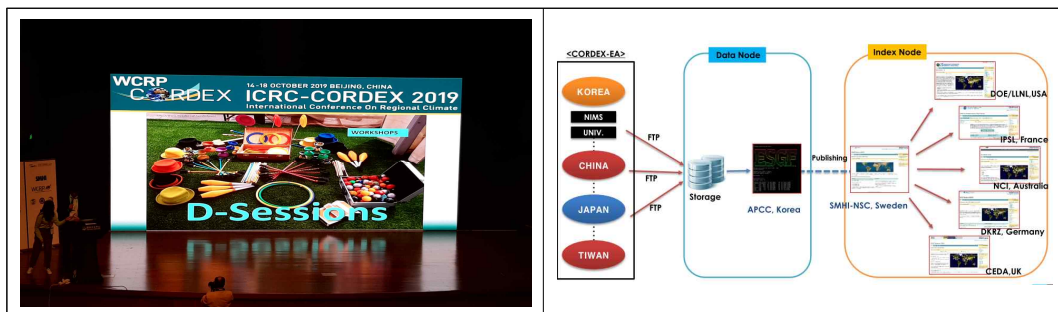


< “CORDEX-EA지역의 ESGF노드와 응용 연구” 세션 발표회장>

- 이 컨퍼런스에서 APCC에서 제출한 ESGF 데이터 노드 관련 “How to generate and distribute the CORDEX-EA metadata through ESGF Data node in APEC Climate Center”written by Jeongmin-Han 와 “Establishment of ESGF data node in APEC

Climate Center for providing CORDEX-EA data” written by Jaewon-Choi의 학술논문 2편을 발표했다. (붙임.2)

- 학술발표에서 2018년에 시작된 APCC의 ESGF 데이터 노드 구축은 대용량 기후자료의 공유와 활용이라는 틀에서 구축의 필요성이 제기되었고 동아시아 지역에서 기상과학원과 국내 대학(공주대, 부산대, 울산과기원, 포항공대)에서 CORDEX동아시아 2단계 자료를 생산하고 APCC는 자료 관리와 배포를 위한 ESGF연합체로부터 승인을 받아 구축된 과정을 설명하였다.
- CORDEX자료를 서비스하기 위한 ESGF 데이터 노드 구축은 아시아 지역에서 인도의 기후 변화연구센터와 한국의 APEC기후센터에서 운영 중이지만, CORDEX 자료 지역이 서로 달라(CCCR: CORDEX-SA, APCC: CORDEX-EA) 동아시아 지역에 대한 서비스는 APCC ESGF데이터 노드가 유일하여 동아시아 기후자료 서비스 센터 구축을 목표로 일본, 중국의 참여를 유도하기 위한 비전을 제시하였다.
- ESGF 데이터 노드를 위한 운영을 위한 요구조건과 한국정부의 공공기관 보안 운영 가이드라인을 설명하고 정부 정책과 ESGF의 운영정책을 위반하지 않는 서비스 계획과 부족한 전산자원을 효과적으로 활용하기 위한 컴퓨팅 기술에 대해 설명하고 향후 서비스 확장에 대해 논의하였다.



< “D세션에 대한 요약발표회와 APCC ESGF노드 활용 설명” >

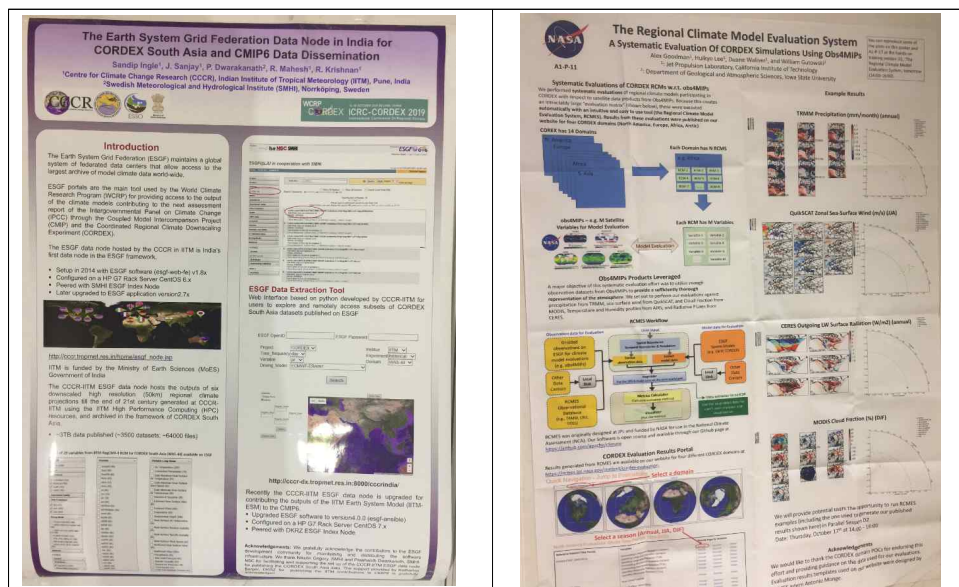
다. 관련기술 및 논의

- 인도의 CCCR-IITM에서 생산한 CORDEX-SA 자료에 대해 스웨덴 SMHI의 인덱스 노드를 이용하여 자료를 서비스하고 있으며 CMIP6 자료를 생산하여 DKRZ 인덱스 노드에 연동하여 자료를 서비스하고 있음을 소개하였다. 또한, 서로 다른 components에서 인도지역의 기후데이터를 쉽게 찾고 접근할 수 있는 ESGF 구조와 소프트웨어 도구에 대해 소개하였다. 발표자는 ESGF에서 제공하는 Restful을 이용하고 웹 브라우저를 통해 원격으로 접속하는 기능으로 APCC의 ESGF노드에도 적용이 가능하다.
- 덴마크의 DMI에서는 유럽지역의 11개 고해상도 CORDEX CORE 시뮬레이션을 이용하는 프로젝트에 대해 소개하였다. 이 발표에서 9개의 참여 기관(SMHI, GERICS, KNMI, DMI, IPSL, MF, ETHZ, UKMO, ICTP)의 서로 다른 지역기후모델을 활용하여 매트릭스에서 균일한 시뮬레이션 분포를 목표로 3D matrix에서 2D 서브-슬라이스를 완성하는 다중모델 앙상블한 결과를 발표했다. 이것은 주로 기후변화에 대한 GCM, RCM 및 시나리오 영향의 분석을 촉진할 뿐 아니라 글로벌 모델과 지역모델 모두에 지속적으로 새로운 모델을 추가하면 초기의 매트릭스가 균일한 매트릭스로 바뀐다고 설명하였다.



< “CORDEX-SA ESGF 데이터 노드와 CORDEX-CORE시뮬레이션>

- 기초연설에서 CORDEX 시뮬레이션의 멀티 도메인 상호 비교 및 잠재적 충돌이라 발표는 지역기후 모델이 더 나은 적응전략 및 정책결정에 도움을 주기 위한 것이지만 각 도메인이 겹치는 지중해 지역의 경우 유럽도메인과 아프리카 도메인, 중동 도메인이 중복되는 곳으로 모델을 통합하여 사용하는 부분은 불확실성이 존재하는 것으로 전통적인 방식이 아닌 새로운 시나리오 선택이 필요하다고 발표하였다.
- NASA-JPL은 관측을 기반으로 한 지구 기후모델에 대한 평가는 모델의 편향을 확인하고 기후변화 예측과 관련된 불확실성을 개선하기 위한 핵심적인 요소이지만, 전지구 기후모델은 소규모지역에서 발생하는 물리적인 현상을 나타내기에는 제한적인 부분이 있어 NASA-JPL에서 개발한 지역기후모델 평가 시스템(RCMES)을 이용하여 CORDEX 14개 도메인에 지역기후 모델 시뮬레이션의 여러 가지 평가 지표를 적용하고 적용된 평가 결과를 소개하였다.



<CCCR의 ESGF데이터 노드 발표 및 JPL의 지역기후모델평가시스템>

2. Relevance to APEC Climate Center's Activities 결론 및 소감

- 다수의 컨퍼런스 참여자들은 APCC의 ESGF데이터 노드를 활용한 자료수집 및 활용에 관심을 보였으며, 배포되는 자료의 특성과 배포일정에 대한 문의와 RCM자료뿐만 아니라 GCM자료까지 확대 배포에 대한 요구가 있었으나, 현재의 시스템 현황과 예산에 대한 한

계를 설명하였음.

- 중국의 상하이기후센터에서는 ESGF데이터 노드 구축과 메타데이터 추출방법에 대해 질문이 있었으며 제공되는 모델의 종류와 특성에 대해서는 기상과학원과 연계를 통해 추후 연락하기로 함.
- 병렬로 진행된 각 세션들은 CORDEX컨퍼런스 참여자 전체가 한자리에 모여 요약 발표하는 시간이 마련되어 APCC의 ESGF 데이터 노드를 전체 참여자들에게 소개하였음. APCC의 동아시아 지역모델 자료 서비스에 앞장서고 있음을 알릴 수 있는 중요한 기회를 가졌다 생각함.
- 인도의 CCCR-IITM에서 구축한 ESGF 노드에서 인도지역의 자료를 원격으로 접속하고 추출하는 서비스는 APCC의 CLIPs의 기능과 유사하여 CLIPs의 서비스 개편을 통해 ESGF 데이터를 기반으로 사용자들에게 자료검색 추출 서비스를 제공하여 사용자 편리성을 증대시킬 수 있을 것으로 판단됨.

3. Suggestions and Remarks 건의사항

- 지역기후 연구에 필요한 자료의 생산 및 공유는 관련 연구자들에게 중요한 재료로 인식되며 CORDEX동아시아 자료의 확대 배포를 원하는 연구자들이 많아 ESGF 연합체 시스템에 대한 전문기술 습득 및 APCC 데이터 노드의 확장 서비스 개발은 중요한 과제로 생각됨.

III. References (Presented and Collected Materials) 주요 수집자료

(with attachment of any information or report in case of attendance of conferences, workshops and meetings) 학술대회, 워크숍, 회의 등 참석 시 관련 정보 및 문서 첨부

- ICRC-CORDEX2019 발표초록

Session D5: Introduction and application of ESGF in CORDEX-EA domain

Conveners

Young-Hwa Byun, Dong-Hyun Cha, Jaewon Choi, and Jeoungmin Han

Rapporteur: Victor Dike

Session summary

In late 2018, an ESGF data node for CORDEX-EA domain was established at the APEC Climate Center (APCC) in Korea. In this session, the overall system and infrastructure of the ESGF data node will be introduced. We also explain how to generate metadata and distribute CORDEX-EA data through the ESGF node at the APCC. In addition, application researches using CORDEX-EA data from ESGF will be presented, which includes analysis of future changes in high impact weather and climate and impact studies of regional climate change on hydrology and eco-system. Participants are invited to [submit abstracts](#) to this session.

Contacts

Young-Hwa Byun, Dong-Hyun Cha, Jaewon Choi, and Jeoungmin Han

Oral presentations

Chairs: Jaewon Choi & Jeongmin Han

- [Current status of CORDEX-EA data center and its future role.](#) **Young-Hwa Byun**
- [How to generate and distribute the CORDEX-EA metadata through ESGF Data Node in APEC Climate Center.](#) **Jeongmin Han**
- [Establishment of ESGF data node in the APEC Climate Center for providing CORDEX-EA data.](#) **Jeongmin Han** (presentation from Jaewon Choi)
- [Regional climate model performance in simulating present-day mean climate using CMIP5 & CMIP6 GCMs.](#) **Jin Uk Kim**
- [Added values by dynamical downscaling for high impact weather simulations over CORDEX East Asia domain.](#) **Dong-Hyun Cha**
- [Projection of future changes in extreme precipitation indices over South Korea.](#) **Gayoung Kim**
- [Future change in tropical cyclone activity over the western North Pacific in CORDEX-East Asia Multi-RCMs forced by HadGEM2-AO.](#) **Minkyu Lee**
- [Asian summer monsoon changes at different levels of global warming: A multi-RCMs study.](#) **Donghyun Lee**

Session description

This session will be started by introducing the basics of ESGF data node for CORDEX-EA domain established at the APEC Climate Center. Detailed information on CORDEX-EA data in ESGF node and how to generate metadata and distribute CORDEX-EA data through the ESGF node will be given. Participants are invited to [submit abstracts](#) to this session, any participant can present their application research using CORDEX-EA data. As an example future extreme weather analysis and impact studies of regional climate change on hydrology and eco-system will be presented. There is no requirement of equipment and restriction of number of participants.

How to generate and distribute the CORDEX-EA metadata through ESGF Data-node in APEC Climate Center

- APEC Climate Center Korea, 2019.10.17
- Jeong-Min Han, Jae-Won Choi

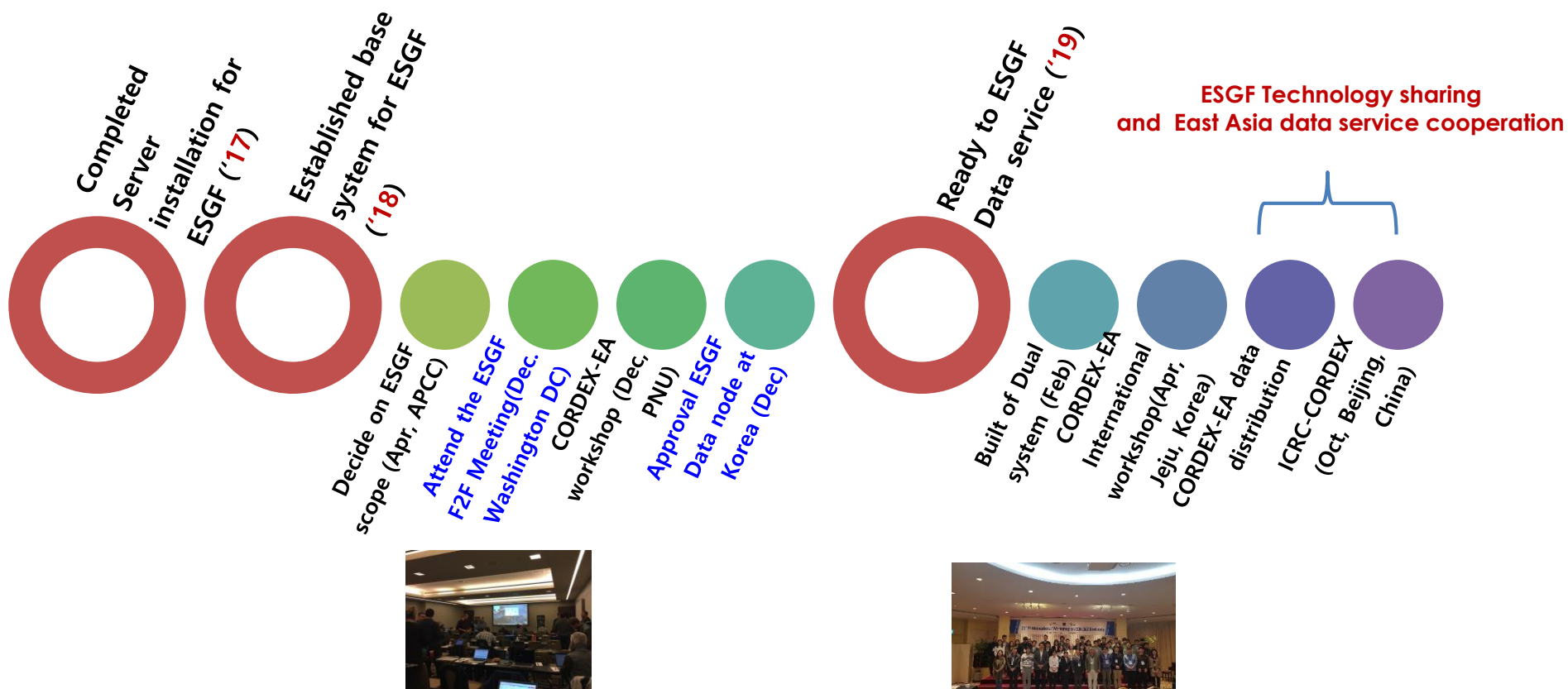
1. Background

- **Need**
 - Experiments are increasing rapidly to generate scenario data for global climate change response
 - Detailed scenarios and regional climate change data capacities are also steadily increasing as the resolution of regional models increase.
 - In order to effectively manage, share and distribute large volumes of data, It is necessary to build a system that complies with international standard.
- **Purpose**
 - Establish and operate ESGF (Earth System Grid Federation) data node system
 - Federate with ESGF Index node system and CORDEX-EA phase2 metadata distribution



2. History of ESGF data node at APCC

APCC



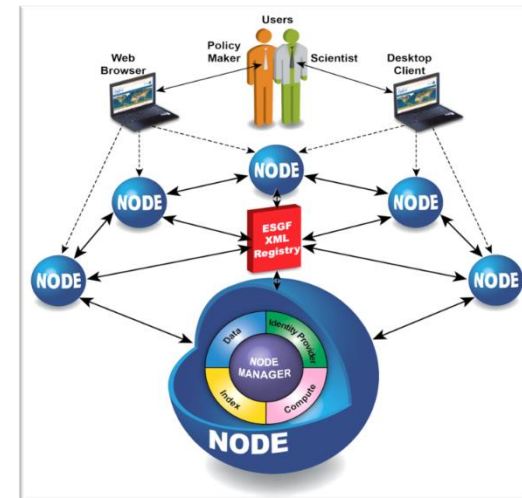
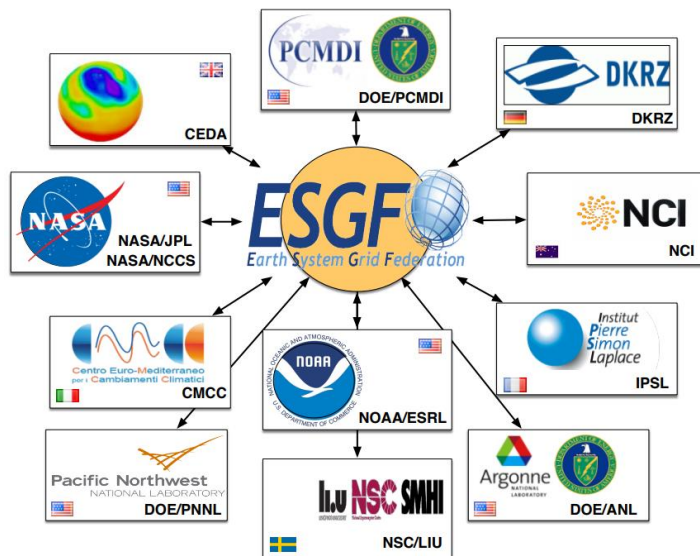
3. What's the ESGF

- **Definition of ESGF**

- **ESGF (Earth System Grid Federation)**

- The ESGF is to collaboration peer to peer system
 - The ESGF Is software infrastructure for the management and analysis of model output and observational data.
 - ESGF's primary goal is to facilitate advancements in Earth system science.

- **ESGF federation**



4. Requirements for operating ESGF Data node

- **ESGF Tier2(data node) sites Requirement**

- Have an uptime more than 90%
- installation of complete SW stack to support for data node
- installation of most recent version of SW(within 2Weeks)
- prompt upgrade in case of detected security breaches (within 7days)
- be responsible for the node maintenance and operation

- **Exclusion of Data nodes:**

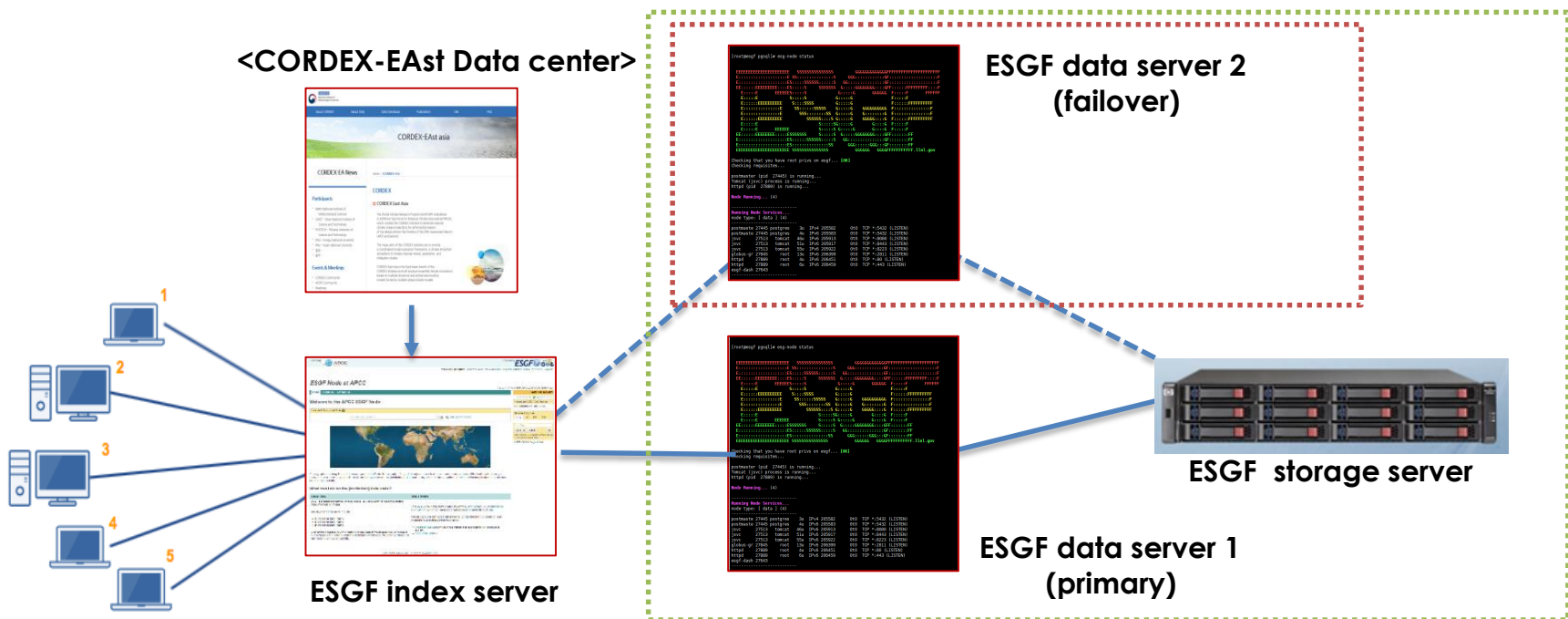
There is an ongoing proposition to enable ESGF to exclude a data node that does not satisfy all the ESGF node operation requirements or a data node that will degrade the federation usability

by “Active/Standby” optimal environment

Satisfy the requirement of ESGF Tier 2

5. Dual system for ESGF data node

- ESGF Tier2 Sites configuration

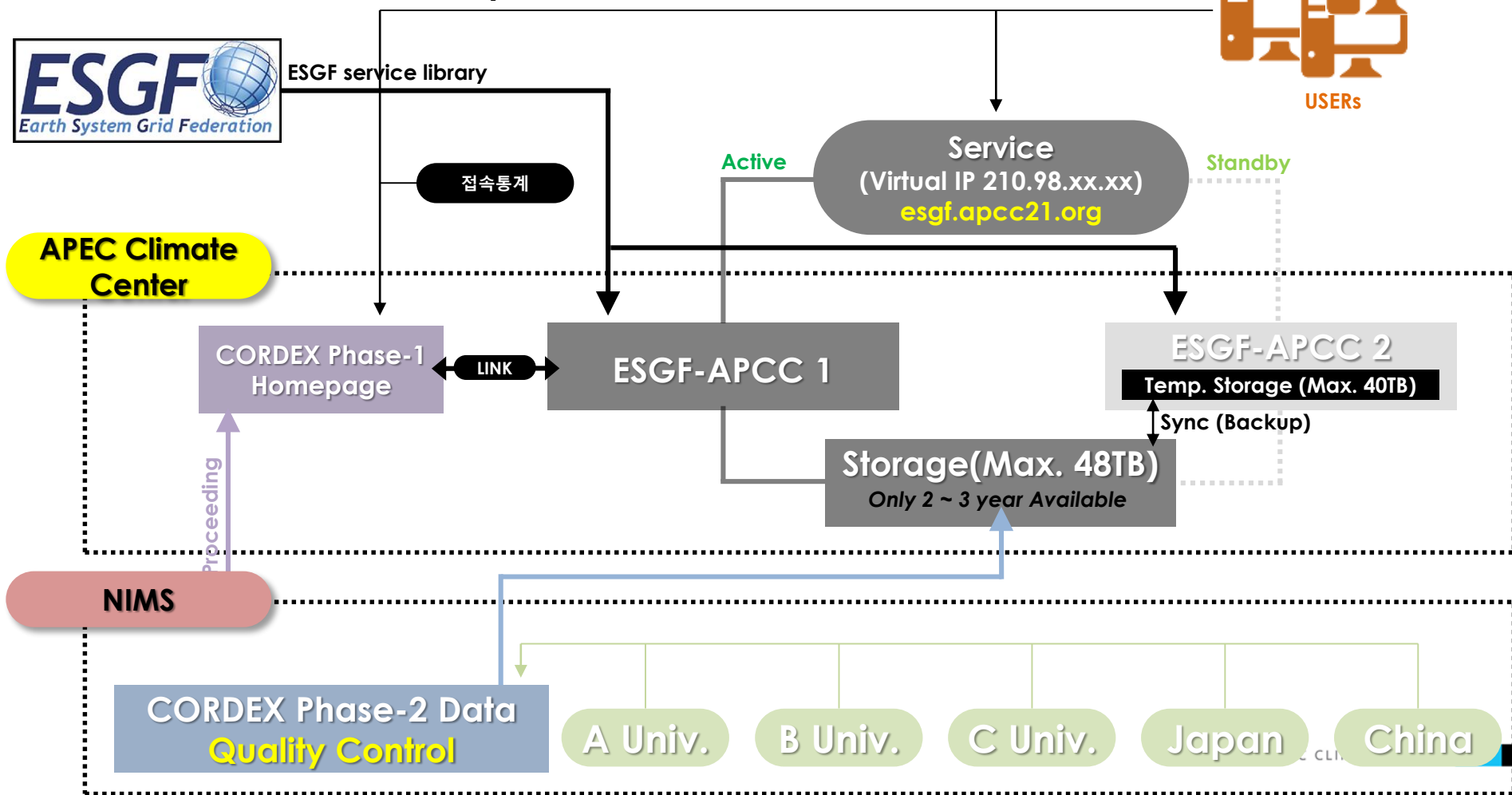


“Active-Standby” system management method applied

6. Network for ESGF data node



● ESGF Tier 2 sites Network system.



- [illegible]



network

< Index Node >

8. Transfer the data using GridFTP

- Interoperating between ESGFAPCC and Globus
 - Sharing the data using Globus

Manage Endpoints

Endpoint List add Globus Connect Personal endpoint

esgfapcc#esgf-apcc Public Endpoint

Overview **Server** **Roles (1)** **My Shares**

Identity Provider

Type	MyProxy	Host	esgf.apcc21.org
DN	/C=US/O=Globus Consortium/OU=Globus Co Service/CN=e1a5d6e6-d299-11e8-8c70-0a1d4c5c824a		

Network Use

[Learn more about network use settings](#)

Network Use	normal	Location	Automatic
Maximum Concurrency	4	Maximum Parallelism	8
Preferred Concurrency	2	Preferred Parallelism	4

Server (1)

globus Manage Data Publish Groups Support Account

Beta [File Manager](#) [Transfer Files](#) [Activity](#) [Endpoints](#) [Bookmarks](#) [Console](#)

Manage Endpoints

Endpoint List add Globus Connect Personal endpoint add Globus Connect Server endpoint

esgfapcc#esgf-apcc Public Endpoint not active activate

Overview **Server** **Roles (1)** **My Shares** **Activate**

Please authenticate to access this endpoint

Login Server esgf.apcc21.org change

Username

Password

advanced

Authenticate



Data Access Login

The following URL requires authentication:
https://esg-dn1.nsc.liu.se/thredds/dodsC/esg_dataroot1/cordexdata/cordex/output/CAM-44/SMHI/MPI-M-MPI-ESM-LR/rcp85/r1i1p1/SMHI-RCA4/v1/mon/psl/v20141105/psl_CAM-44_MPI-M-MPI-ESM-LR_rcp85_r1i1p1_SMHI-RCA4_v1_mon_200601-201012.nc.dods

Please type in your OpenID URL at the OpenID prompt below or select your home OpenID Provider from one of the options provided in the drop-down list

Status: not logged-in

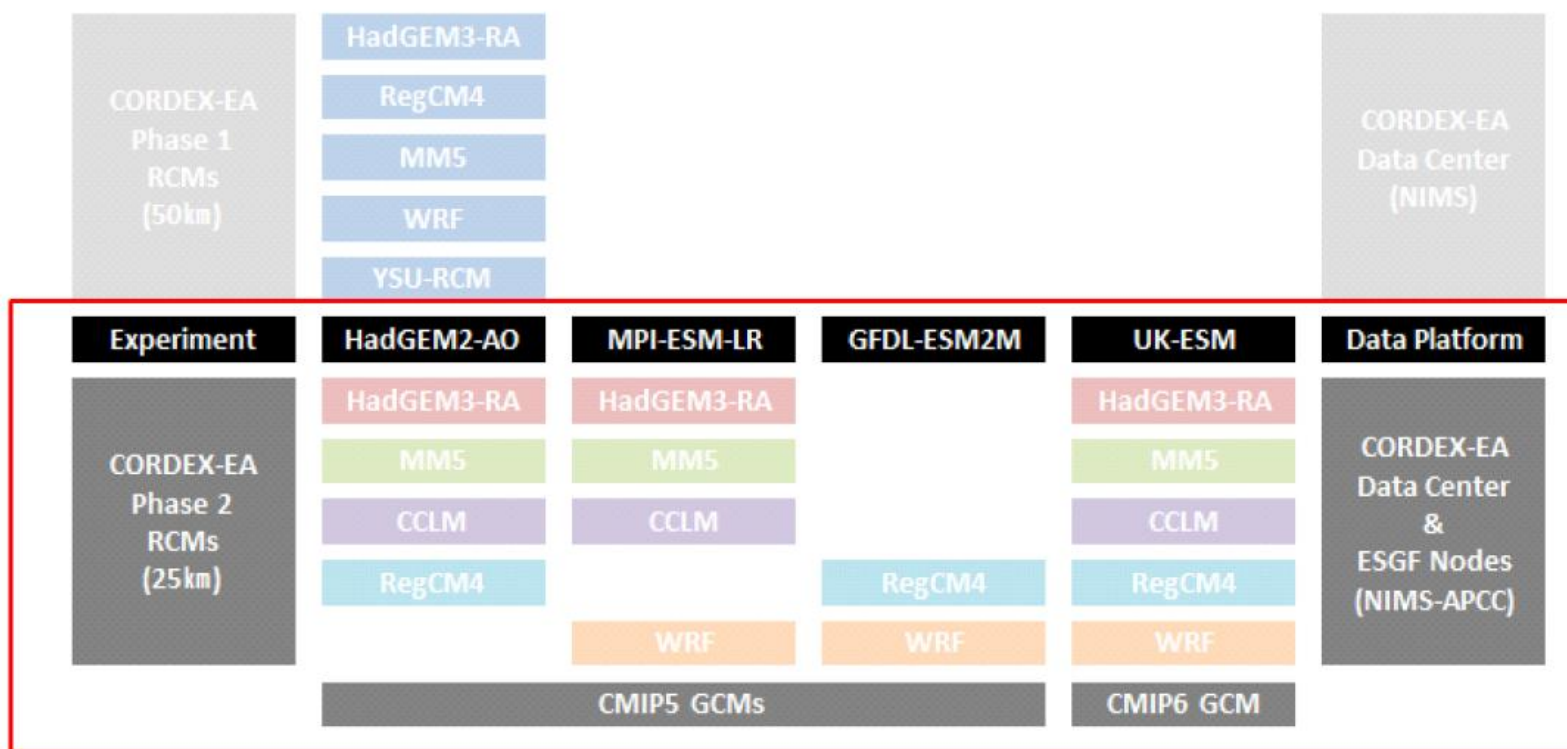
 OpenID

☒ Remember my OpenID on this computer

After logging in, you will be redirected to:
https://esg-dn1.nsc.liu.se/thredds/dodsC/esg_dataroot1/cordexdata/cordex/output/CAM-44/SMHI/MPI-M-MPI-ESM-LR/rcp85/r1i1p1/SMHI-RCA4/v1/mon/psl/v20141105/psl_CAM-44_MPI-M-MPI-ESM-LR_rcp85_r1i1p1_SMHI-RCA4_v1_mon_200601-201012.nc.dods

9. Target CORDEX Data

- CORDEX-EA Phase 2 RCMs



Source : NIMS in KOREA

10. Sample data

- Sample of CORDEX Data

ESGF > CORDEX샘플데이터	CORDEX샘플데이터 검색
이름	수정함
 orog_AFR-44_CCCma-CanESM2_historical_r0i0p0_SMHI-RCA4_v1_fx.nc	2019-0:
 tas_EAS-22_ECMWF-ERAINT_evaluation_r1i1p1_NIMS-KMA-HadGEM3-RA_v1_day_19810101-19851...	2019-0:
 tas_EAS-22_ECMWF-ERAINT_evaluation_r1i1p1_NIMS-KMA-HadGEM3-RA_v1_mon_197901-198012...	2019-0:
 tas_EAS-22_ECMWF-ERAINT_evaluation_r1i1p1_NIMS-KMA-HadGEM3-RA_v1_mon_198101-199012...	2019-0:

Supported by NSC(Sweden)

Supported by NIMS(Korea)

```
[root@esgf v20130927]# pwd
/esg/data/datapool1/cordexdata/cordex/output/AFR-44/SMHI/CCCma-CanESM2/historical/r0i0p0/SMHI-RCA4/v1/fx/orog/v20130927
[root@esgf v20130927]# ls -al
total 363704
drwxr-xr-x 2 root root      4096 Mar 15 17:30 .
drwxr-xr-x 3 root root      22 Dec  7 23:18 ..
-r--r--r-- 1 nobody nobody 112069 Jul 30 2013 orog_AFR-44_CCCma-CanESM2_historical_r0i0p0_SMHI-RCA4_v1_fx.nc
-rw-r--r-- 1 root root 344629599 Mar 15 17:30 tas_EAS-22_ECMWF-ERAINT_evaluation_r1i1p1_NIMS-KMA-HadGEM3-RA_v1_day_19810101-19851231.nc
-rw-r--r-- 1 root root 5018035 Mar 15 17:30 tas_EAS-22_ECMWF-ERAINT_evaluation_r1i1p1_NIMS-KMA-HadGEM3-RA_v1_mon_197901-198012.nc
-rw-r--r-- 1 root root 22657750 Mar 15 17:30 tas_EAS-22_ECMWF-ERAINT_evaluation_r1i1p1_NIMS-KMA-HadGEM3-RA_v1_mon_198101-199012.nc
[root@esgf v20130927]#
```


11. Creating Metadata on Local System

- Creating Metadata to APCC System

- Step1. Mapfile generation

```
(esgf-pub) [root@esgf publication-testing]# esgmapfile --mapfile test.map --project cordex /esg/data/datapool1
Mapfile(s) generation: 100% | 4/4 file(s)
Mapfile(s) generated: 1 (in /root/esgfcodesprint/publication-testing/mapfiles)
Number of file(s) scanned: 4
Number of error(s): 0
(esgf-pub) [root@esgf publication-testing]#
```

```
(esgf-pub) [root@esgf mapfiles]# more test.map
cordex.output.AFR-44.SMHI.CCma-CanESM2.historical.r0i0p0.RCA4.v1.fx.orog.v20130927 | /esg/data/datapool1/cordexdata/cordex/output/AFR-44.SMHI.CCma-CanESM2.historical/r0i0p0.SMHI-RCA4/v1/fx/orog/v20130927/orog_AFR-44.CCma-CanESM2.historical.r0i0p0.SMHI-RCA4.v1.fx.nc | 112069 | mod_time=1375126038.0 | checksum=b33e45bd16fd2aa4d07023505127eddf794471a5eb66ae8232e8497b1e57c8e7 | checksum_type=SHA256
cordex.output.AFR-44.SMHI.CCma-CanESM2.historical.r0i0p0.RCA4.v1.fx.orog.v20130927 | /esg/data/datapool1/cordexdata/cordex/output/AFR-44.SMHI.CCma-CanESM2.historical/r0i0p0.SMHI-RCA4/v1/fx/orog/v20130927/tas_EAS-22.ECMWF-ERAINT_evaluation_rli01.NIMS-KMA-HadGEM3-RA.v1.mon.197901-199012.nc | 5018035 | mod_time=1552638610.78 | checksum=1896eba06642eb16d48c38cb190060f7398c8638670ad30bc4559e98a3b3e956 | checksum_type=SHA256
cordex.output.AFR-44.SMHI.CCma-CanESM2.historical.r0i0p0.RCA4.v1.fx.orog.v20130927 | /esg/data/datapool1/cordexdata/cordex/output/AFR-44.SMHI.CCma-CanESM2.historical/r0i0p0.SMHI-RCA4/v1/fx/orog/v20130927/tas_EAS-22.ECMWF-ERAINT_evaluation_rli01.NIMS-KMA-HadGEM3-RA.v1.mon.198101-199012.nc | 22657750 | mod_time=1552638620.16 | checksum=76863f601c3ca0f8a079229f3aa89f2a38f3153be783ac39eb6cf2d6f659ef63 | checksum_type=SHA256
cordex.output.AFR-44.SMHI.CCma-CanESM2.historical.r0i0p0.RCA4.v1.fx.orog.v20130927 | /esg/data/datapool1/cordexdata/cordex/output/AFR-44.SMHI.CCma-CanESM2.historical/r0i0p0.SMHI-RCA4/v1/fx/orog/v20130927/tas_EAS-22.ECMWF-ERAINT_evaluation_rli01.NIMS-KMA-HadGEM3-RA.v1.day.19810101-19851231.nc | 344629599 | mod_time=1552638623.21 | checksum=f8633536b23dfe46ff241f2c30565e50e379ef5aa102e06dcdec1ee2f0df23f | checksum_type=SHA256
(esgf-pub) [root@esgf mapfiles]#
```

- Step2. Publication at Data Node local Thredds Server.

```
(esgf-pub) [root@esgf publication-testing]# esgpublish --map mapfiles/test.map --project cordex --noscan --thredds
INFO 2019-03-27 11:42:07,776 Writing THREDDS catalog /esg/content/thredds/esgcat/1/cordex.output.AFR-44.SMHI.CCma-CanESM2.historical.r0i0p0.RCA4.v1.fx.orog.v20130927.xml
INFO 2019-03-27 11:42:07,864 Writing THREDDS ESG master catalog /esg/content/thredds/esgcat/catalog.xml
INFO 2019-03-27 11:42:07,868 Reinitializing THREDDS server
```

12. Publication to Index node

- Peer to Index node at Sweden
 - Step3. Publication at Peer index Node

```
(esgf-pub) [root@esgf ~]# myproxy-logon -s esg-dn1.nsc.  
connect to  
connect to esg-dn1.nsc.liu.se  
Connection timed out
```

- Step 4. Publish

```
A credential has been received for user esgfapcc in /root/.globus/certificate-file.  
(esgf-pub) [root@esgf publication-testing]# esgpublish --map mapfiles/test.map --project cordex --noscan --publish  
INFO      2018-12-17 17:00:28,233 Publishing: cordex.output.AFR-44.SMHI.CCCma-CanESM2.historical.r0i0p0.RCA4.v1.fx.0rog  
INFO      2018-12-17 17:00:34,192 Result: SUCCESSFUL  
(esgf-pub) [root@esgf publication-testing]#
```

- **1. check the properties for CORDEX attributes**

```

Traceback (most recent call last):
  File "/usr/local/conda/envs/esgf-pub/lib/python2.7/site-packages/esgproc/mapfile/main.py", line 156, in process
    configdict(cfg)
  File "/usr/local/conda/envs/esgf-pub/lib/python2.7/site-packages/esgproc/mapfile/handler.py", line 83, in check_facts
    raise McConfigurationException('! map_.format(fact))
McConfigurationException: Option not found
option: 'rcs_name map_'
section: 'project:cordex'
- file: '/esg/config/esgproc/esg.cordex.ini'
- SECTPRB : /esg/data/cordex/cordexdata/codes/output/EAS-22/IRMS-KMA/CONF-EIRAI/evaluation/rllip1/IRMS-KMA-IRMS22-KMA_v1_m0_199101-199101
Traceback (most recent call last):
  File "/usr/local/conda/envs/esgf-pub/lib/python2.7/site-packages/esgproc/mapfile/main.py", line 156, in process
    configdict(cfg)
  File "/usr/local/conda/envs/esgf-pub/lib/python2.7/site-packages/esgproc/mapfile/handler.py", line 83, in check_facts
    raise McConfigurationException('! map_.format(fact))
McConfigurationException: Option not found
option: 'rcs_name map_'
section: 'project:cordex'
- file: '/esg/config/esgproc/esg.cordex.ini'
- SECTPRB : /esg/data/cordex/cordexdata/codes/output/EAS-22/IRMS-KMA/CONF-EIRAI/evaluation/rllip1/IRMS-KMA-IRMS22-KMA_v1_m0_199101-199101
Traceback (most recent call last):
  File "/usr/local/conda/envs/esgf-pub/lib/python2.7/site-packages/esgproc/mapfile/main.py", line 156, in process
    configdict(cfg)
  File "/usr/local/conda/envs/esgf-pub/lib/python2.7/site-packages/esgproc/mapfile/handler.py", line 83, in check_facts
    raise McConfigurationException('! map_.format(fact))
McConfigurationException: Option not found
option: 'rcs_name map_'
section: 'project:cordex'
- file: '/esg/config/esgproc/esg.cordex.ini'
- SECTPRB : /esg/data/cordex/cordexdata/codes/output/EAS-22/IRMS-KMA/CONF-EIRAI/evaluation/rllip1/IRMS-KMA-IRMS22-KMA_v1_m0_199101-199101
Traceback (most recent call last):
  File "/usr/local/conda/envs/esgf-pub/lib/python2.7/site-packages/esgproc/mapfile/main.py", line 156, in process
    configdict(cfg)
  File "/usr/local/conda/envs/esgf-pub/lib/python2.7/site-packages/esgproc/mapfile/handler.py", line 83, in check_facts
    raise McConfigurationException('! map_.format(fact))
McConfigurationException: Option not found
option: 'rcs_name map_'
section: 'project:cordex'
- file: '/esg/config/esgproc/esg.cordex.ini'
- SECTPRB : /esg/data/cordex/cordexdata/codes/output/EAS-22/IRMS-KMA/CONF-EIRAI/evaluation/rllip1/IRMS-KMA-IRMS22-KMA_v1_m0_199101-199101
Traceback (most recent call last):
  File "/usr/local/conda/envs/esgf-pub/lib/python2.7/site-packages/esgproc/mapfile/main.py", line 156, in process
    configdict(cfg)
  File "/usr/local/conda/envs/esgf-pub/lib/python2.7/site-packages/esgproc/mapfile/handler.py", line 83, in check_facts
    raise McConfigurationException('! map_.format(fact))
McConfigurationException: Option not found
option: 'rcs_name map_'
section: 'project:cordex'
- file: '/esg/config/esgproc/esg.cordex.ini'
- SECTPRB : /esg/data/cordex/cordexdata/codes/output/EAS-22/IRMS-KMA/CONF-EIRAI/evaluation/rllip1/IRMS-KMA-IRMS22-KMA_v1_m0_199101-199101

```

2.Target data check

3.Extract Metadata

[illegible]

5. Publish to index

[illegible]

4. Make threads server

14. Data Searching on Index node

- CORDEX-EA Data on Index Node in Sweden

The screenshot displays the ESGF@LIU/CORDEX web interface. On the left, there are filters for Project, Product, Domain, Institute, Driving Model, Experiment, Experiment Family, Ensemble, and RCM Model. The 'Institute' filter is expanded, showing a list of institutes with 'NIMS-KMA (111)' selected. The 'Driving Model' filter is also expanded, showing a list of models with 'esgf.apcc21.org (111)' selected. The main search area shows a search bar with the text 'esgf.apcc21.org' and a search button. Below the search bar, there are search constraints and a list of results. The results list shows five entries, each with a project name, data node, version, and total number of files. The first entry is 'cordex.output.EAS-22.NIMS-KMA-ECMWF-ERA-INT.Evaluation.r1r1p1.RA.v1.3hr.uas' with data node 'esgf.apcc21.org' and version '20190501'. The second entry is 'cordex.output.EAS-22.NIMS-KMA-ECMWF-ERA-INT.Evaluation.r1r1p1.RA.v1.3hr.uas500' with data node 'esgf.apcc21.org' and version '20190501'. The third entry is 'cordex.output.EAS-22.NIMS-KMA-ECMWF-ERA-INT.Evaluation.r1r1p1.RA.v1.3hr.uas850' with data node 'esgf.apcc21.org' and version '20190501'. The fourth entry is 'cordex.output.EAS-22.NIMS-KMA-ECMWF-ERA-INT.Evaluation.r1r1p1.RA.v1.3hr.uas925' with data node 'esgf.apcc21.org' and version '20190501'. The fifth entry is 'cordex.output.EAS-22.NIMS-KMA-ECMWF-ERA-INT.Evaluation.r1r1p1.RA.v1.3hr.uas200' with data node 'esgf.apcc21.org' and version '20190501'. Red arrows point from the 'Institute' and 'Driving Model' filters to the search bar and the first result entry, respectively.

Project: +
Product: +
Domain: +
Institute: -
Driving Model: +
Experiment: +
Experiment Family: +
Ensemble: +
RCM Model: +

Datanode: -
cordesg.dmi.dk (14299)
data.meteo.unican.es (817)
esg-cccr.tropmet.res.in (2613)
esg-dn1.nsc.liu.se (56214)
esg-dn1.ru.ac.th (641)
esg1.umn-cnrm.fr (722)
esgf-data1.ceda.ac.uk (2611)
esgf-ictp.hpc.sinica.it (4)
esgf.apcc21.org (111)
esgf.dwd.de (177)
esgf.ichec.ie (752)
esgf.nci.org.au (5404)
esgf1.dkrz.de (20375)
vesg.iplsi.upmc.fr (659)

ESGF@LIU/CORDEX
Home About Us Contact Us

Enter Text: [Search] [Reset] [Display 10] results per page [More Search Options]

Search Constraints: ☐ Show All Replicas ☐ Show All Versions ☐ Search Local Node Only (Including All Replicas)

Total Number of Results: 111
Please login to add search results to your Data Cart
Expert Users: you may display the search URL and return results as XML or return results as JSON

1. cordex.output.EAS-22.NIMS-KMA-ECMWF-ERA-INT.Evaluation.r1r1p1.RA.v1.3hr.uas
Data Node: esgf.apcc21.org
Version: 20190501
Total Number of Files (for all variables): 37
Full Dataset Services: [Show Metadata] [List Files] [THREDDS Catalog] [WGET Script] [LAS Visualization]

2. cordex.output.EAS-22.NIMS-KMA-ECMWF-ERA-INT.Evaluation.r1r1p1.RA.v1.3hr.uas500
Data Node: esgf.apcc21.org
Version: 20190501
Total Number of Files (for all variables): 37
Full Dataset Services: [Show Metadata] [List Files] [THREDDS Catalog] [WGET Script] [LAS Visualization]

3. cordex.output.EAS-22.NIMS-KMA-ECMWF-ERA-INT.Evaluation.r1r1p1.RA.v1.3hr.uas850
Data Node: esgf.apcc21.org
Version: 20190501
Total Number of Files (for all variables): 37
Full Dataset Services: [Show Metadata] [List Files] [THREDDS Catalog] [WGET Script] [LAS Visualization]

4. cordex.output.EAS-22.NIMS-KMA-ECMWF-ERA-INT.Evaluation.r1r1p1.RA.v1.3hr.uas925
Data Node: esgf.apcc21.org
Version: 20190501
Total Number of Files (for all variables): 37
Full Dataset Services: [Show Metadata] [List Files] [THREDDS Catalog] [WGET Script] [LAS Visualization]

5. cordex.output.EAS-22.NIMS-KMA-ECMWF-ERA-INT.Evaluation.r1r1p1.RA.v1.3hr.uas200
Data Node: esgf.apcc21.org
Version: 20190501

15. Search method Dataset on ESGF

- Data search on ESGF System
 - Default search : project, variable, keyword
 - Optional search: default search + file name, period, dataset version

Home About Us Contact Us You are at the [ESGF.APCC21.ORG](#) node Technical Support

Project

- ACME (23)
- BioClim (2)
- CC4E (456)
- CMIP5 (51944)
- CMIP6 (9775)
- CORDEX (101674)
- CORDEX-Adjust (927)
- CORDEX-Reklies (5071)
- CREATE-IP (44)
- EUCLIPSE (41)
- GeoMIP (754)
- ISI-MIP Fast Track (23491)
- ISIMIP2 Phase a (210)
- ISIMIP2a (13067)
- ISIMIP2b (72090)
- LUCID (318)
- NEX (10)
- NEXGDDP (3)
- PMIP3 (336)
- TAMIP (1536)
- TEST (4)

Variable

Enter Text:

Search

Reset

Display 10 results per page

[More Search Options]

Total Number of Results: 801500

-1- 2 3 4 5 6 Next >>

Please login to add search results to your Data Cart

Expert Users: you may display the search URL and return results as XML or return results as JSON

1. clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-N

Data Node: esg-dn1.nsc.liu.se

Version: 20150601

Total Number of Files (for all variables): 22

Full Dataset Services: [Show Metadata] [List Files] [THREDDS Catalog] [WGET Script]

2. clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-N

Data Node: esg-dn1.nsc.liu.se

Version: 20150601

Total Number of Files (for all variables): 22

Full Dataset Services: [Show Metadata] [List Files] [THREDDS Catalog] [WGET Script]

3. clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-MESAN.v1.mon.tasmax

Data Node: esg-dn1.nsc.liu.se

Version: 20150601

Total Number of Files (for all variables): 3

Full Dataset Services: [Show Metadata] [List Files] [THREDDS Catalog] [WGET Script]

4. clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-MESAN.v1.mon.tasmin

Data Node: esg-dn1.nsc.liu.se

Version: 20150601

Total Number of Files (for all variables): 3

Full Dataset Services: [Show Metadata] [List Files] [THREDDS Catalog] [WGET Script]

5. clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-MESAN.v1.day.tas

Data Node: esg-dn1.nsc.liu.se

Version: 20150601

Total Number of Files (for all variables): 3

Full Dataset Services: [Show Metadata] [List Files] [THREDDS Catalog] [WGET Script]

To filter Filenames by variable: Enter Text Apply Reset (works with 'List Files', WGET and Globus)

To search All Versions with date constraints: YYYYMMDD ≤ dataset version (as 'YYYYMMDD' date) ≤ YYYYMMDD

To search for a dataset with a known id, master_id or instance_id, use the 'Enter Text' widget above as in the following examples (use of "*" is allowed):

- id:obs4mips.NASA-JPL.GNSS_RO.zg.monClim.v20160601|esgf-data.jpl.nasa.gov
- id:obs4mips.NASA-JPL.*
- master_id:obs4mips.NASA-JPL.GNSS_RO.zg.monClim
- instance_id:obs4mips.NASA-JPL.GNSS_RO.zg.monClim.v20160601

MATE CENTER

- [illegible]

Project

- ☐ ACME (23)
- ☐ BioClim (2)
- ☐ CC4E (456)
- ☐ CMIP5 (51944)
- ☐ CMIP6 (9775)
- ☐ CORDEX (101674)
- ☐ CORDEX-Adjust (927)
- ☐ CORDEX-Rekies (5071)
- ☐ CREATE-IP (44)
- ☐ EUCLIPSE (41)
- ☐ GeoMIP (754)
- ☐ ISI-MIP Fast Track (23491)
- ☐ ISIMIP2 Phase a (210)
- ☐ ISIMIP2a (13067)
- ☐ ISIMIP2b (72090)
- ☐ LUCID (318)
- ☐ NEX (10)
- ☐ NEXGDDP (3)
- ☐ PMIP3 (336)
- ☐ TAMIP (1536)
- ☐ TEST (4)

Variable

Enter Text:  Display results per page [\[More Search Options \]](#)

[-1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [Next >>](#)

Expert Users: you may display the search URL and return results as XML or return results as JSON

1. [clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-MESAN.v1.day1](#)
Data Node: [esg-dn1.nsc.liu.se](#)
Version: 20150601
Total Number of Files (for all variables): 22
Full Dataset Services: [\[Show Metadata \]](#) [\[List Files \]](#) [\[THREDDS Catalog \]](#)
2. [clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-MESAN.v1.day1](#)
Data Node: [esg-dn1.nsc.liu.se](#)
Version: 20150601
Total Number of Files (for all variables): 22
Full Dataset Services: [\[Show Metadata \]](#) [\[List Files \]](#) [\[THREDDS Catalog \]](#)
3. [clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-MESAN.v1.mon](#)
Data Node: [esg-dn1.nsc.liu.se](#)
Version: 20150601
Total Number of Files (for all variables): 3
Full Dataset Services: [\[Show Metadata \]](#) [\[List Files \]](#) [\[THREDDS Catalog \]](#)
4. [clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-MESAN.v1.mon](#)
Data Node: [esg-dn1.nsc.liu.se](#)
Version: 20150601
Total Number of Files (for all variables): 3
Full Dataset Services: [\[Show Metadata \]](#) [\[List Files \]](#) [\[THREDDS Catalog \]](#)
5. [clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-MESAN.v1.day1](#)
Data Node: [esg-dn1.nsc.liu.se](#)

[illegible]

17. Metadata view on ESGF

- View the metadata about Datasets

Home About Us Contact Us

Project

- ☐ ACME (23)
- ☐ BioClim (2)
- ☐ CC4E (456)
- ☐ CMIP5 (51944)
- ☐ CMIP6 (9775)
- ☐ CORDEX (101674)
- ☐ CORDEX-Adjust (927)
- ☐ CORDEX-Reklies (5071)
- ☐ CREATE-IP (44)
- ☐ EUCLIPSE (41)
- ☐ GeoMIP (754)
- ☐ ISI-MIP Fast Track (23491)
- ☐ ISIMIP2 Phase a (210)
- ☐ ISIMIP2a (13067)
- ☐ ISIMIP2b (72090)
- ☐ LUCID (318)
- ☐ NEX (10)
- ☐ NEXGDDP (3)
- ☐ PMIP3 (336)
- ☐ TAMIP (1536)
- ☐ TEST (4)

Variable

Enter Text:

Search Reset

Total Number of Results: 8015
-1- 2 3 4 5 6 Next >>
Please login to add search results to your list.
Expert Users: you may display the search URL and return results

1. clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-MESAN.v1.day.tasmax
Data Node: esg-dn1.nsc.liu.se
Version: 20150601
Total Number of Files (for all variables): 22
Full Dataset Services: [Show Metadata](#) [List Files](#) [THREDDS Catalog](#) [WGNET Script](#)
2. clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-MESAN.v1.day.tasmin
Data Node: esg-dn1.nsc.liu.se
Version: 20150601
Total Number of Files (for all variables): 22
Full Dataset Services: [Show Metadata](#) [List Files](#) [THREDDS Catalog](#) [WGNET Script](#)
3. clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-MESAN.v1.mon.tasmax
Data Node: esg-dn1.nsc.liu.se
Version: 20150601
Total Number of Files (for all variables): 3
Full Dataset Services: [Show Metadata](#) [List Files](#) [THREDDS Catalog](#) [WGNET Script](#)
4. clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-MESAN.v1.mon.tasmin
Data Node: esg-dn1.nsc.liu.se
Version: 20150601
Total Number of Files (for all variables): 3
Full Dataset Services: [Show Metadata](#) [List Files](#) [THREDDS Catalog](#) [WGNET Script](#)
5. clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-MESAN.v1.day.tas
Data Node: esg-dn1.nsc.liu.se
Version: 20150601

Dataset Metadata
id = clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-MESAN.v1.day.tasmax.v20150601.esg-dn1.nsc.liu.se
version = 20150601
timestamp = 2018-03-04T13:56:16.028Z
access = HTTPServer, GridFTP, OPENDAP
cf_standard_name = air_temperature
data_node = esg-dn1.nsc.liu.se
dataset_id_template = clipc.%(product_raw)s.%(domain)s.%(institute)s.%(driving_reanalysis)s.%(driving_ensemble)s.%(reanalysis)s.%(reanalysis_ensemble)s.%(time_frequency)s.%(variable)s
datetime_start = 1989-01-01T12:00:00Z
datetime_stop = 2010-12-31T12:00:00Z
domain = EUR-05
driving_ensemble = v1d1-v1d2
driving_reanalysis = SMHI-HIRLAM
east_degrees = 24.35
geo = ENVELOPE(-28.15, 24.35, 13.95, -36.0)
geo_units = degrees
index_node = esg-dn1.nsc.liu.se
instance_id = clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-MESAN.v1.day.tasmax.v20150601
institute = SMHI
master_id = clipc.RegRean.EUR-05.SMHI.SMHI-HIRLAM.v1d1-v1d2.SMHI-MESAN.v1.day.tasmax
metadata_format = THREDDS
metadata_url = http://esg-dn1.nsc.liu.se/thredds/catalog/catalog.xml
north_degrees = 13.95
number_of_aggregations = 1
number_of_files = 22
product = Regional Reanalysis
project = clipc
reanalysis = SMHI-MESAN
reanalysis_ensemble = v1
retracted = F
size = 11439314128
south_degrees = -36.0
time_frequency = day
variable = tasmax
variable_long_name = Daily Maximum Near-Surface Air Temperature
variable_units = K
west_degrees = -28.15

18. Data download

- CORDEX-EA Phase 2

NIMS's CORDEX-EA Data Center

NSC's Index Node

APCC's Data Node

Hosted by 

ESGF@LIU/CORDEX

- Project
- Product
- Domain
- Institute
- Driving Model
- Experiment
- Experiment Family
- Ensemble
- RCM Model
- Downscaling realisation
- Time Frequency
- Variable
- Variable Long Name
- CF Standard Name
- Datanode

Enter Text: Search Reset Display 10 results per page

Search Constraints: ☒ Show All Replicas ☐ Show All Versions ☐ Search Local Node Only (including All)

Total Number of Results: 111
-1-2 3 4 5 6 Next >>
Please login to add search results to your Data Cart
Expert Users: you may display the search URL and return results as XML, or return results as JSON

1. **cordex.output.EAS-22.NIMS-KMA-ECMWF-ERA-INT.evaluation.r11p1.RA.v1.3hr.tas**
Data Node: esgf.apcc21.org
Version: 20190601
Total Number of Files (for all variables): 37
Full Dataset Services: [Show Metadata] [List Files] [THREDDS Catalog] [WGET Script] [LAS Visualization]
2. **cordex.output.EAS-22.NIMS-KMA-ECMWF-ERA-INT.evaluation.r11p1.RA.v1.3hr.a500**
Data Node: esgf.apcc21.org
Version: 20190601
Total Number of Files (for all variables): 37
Full Dataset Services: [Show Metadata] [List Files] [THREDDS Catalog] [WGET Script] [LAS Visualization]
3. **cordex.output.EAS-22.NIMS-KMA-ECMWF-ERA-INT.evaluation.r11p1.RA.v1.3hr.a850**
Data Node: esgf.apcc21.org
Version: 20190601
Total Number of Files (for all variables): 37
Full Dataset Services: [Show Metadata] [List Files] [THREDDS Catalog] [WGET Script] [LAS Visualization]
4. **cordex.output.EAS-22.NIMS-KMA-ECMWF-ERA-INT.evaluation.r11p1.RA.v1.3hr.a925**
Data Node: esgf.apcc21.org
Version: 20190601
Total Number of Files (for all variables): 37
Full Dataset Services: [Show Metadata] [List Files] [THREDDS Catalog] [WGET Script] [LAS Visualization]
5. **cordex.output.EAS-22.NIMS-KMA-ECMWF-ERA-INT.evaluation.r11p1.RA.v1.3hr.a1000**
Data Node: esgf.apcc21.org
Version: 20190601
Total Number of Files (for all variables): 37
Full Dataset Services: [Show Metadata] [List Files] [THREDDS Catalog] [WGET Script] [LAS Visualization]

Initial TDS Installation

Catalog

Dataset



cordex.output.EAS-22.NIMS-KMA-ECMWF-ERA-INT.evaluation.r11p1.RA.v1.3hr.tas

	Size	Last Modified
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_201501010130-201512312230.nc	564.9 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_201401010130-201412312230.nc	566.1 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_201301010130-201312312230.nc	566.1 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_201201010130-201212312230.nc	567.9 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_201101010130-201112312230.nc	566.0 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_201001010130-201012312230.nc	566.3 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_200901010130-200912312230.nc	566.0 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_200801010130-200812312230.nc	567.8 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_200701010130-200712312230.nc	566.0 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_200601010130-200612312230.nc	565.5 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_200501010130-200512312230.nc	566.1 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_200401010130-200412312230.nc	567.1 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_200301010130-200312312230.nc	566.4 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_200201010130-200212312230.nc	566.0 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_200101010130-200112312230.nc	566.3 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_200001010130-200012312230.nc	567.5 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_199901010130-199912312230.nc	565.6 Mbytes	---
tas_EAS-22_ECMWF-ERA-INT_evaluation_r11p1_NIMS-KMA-HadGEM3-RA_v1_3hr_199801010130-199812312230.nc	565.9 Mbytes	---

19. Status of data service

- CORDEX-EA Phase-II data in Korea

	HadGEM3-RA (NIMS)	SNU-RCM (UNIST)	CCLM (POSTECH)	WRF (PNU)	RegCM4 (KNU)
ERA-Interim	○	○	○	○	x
GCM core	x	x	x	x	x
Data QC	Complete	Complete	Complete	Complete	Progress

- CORDEX-EA Phase-II in Asia Countries

	Japan (MRI-JMA)	China (IAP-CAS)	China (Nanjing-UNI)
1 st Priority Data	x	x	x
2 nd Priority Data	x	x	x
	Under discussion		

establishment of ESGF data node for CORDEX-EA

김진욱 <jukim86@korea.kr>
2019-05-23 오후 4:03

받는 사람: hkawase@mri-jma.go.jp, gaonj@cma.gov.cn, jrtang@nju.edu.cn 참조...

Dear Colleagues for CORDEX East Asia,

Hello, I'm Jin-Uk Kim of NIMS.

First of all, thank you very much for attending the CORDEX-EA workshop in April.

As mentioned in the last CORDEX-EA workshop, NIMS and APCC have established **ESGF data nodes** to provide Regional Climate Scenarios. CORDEX recommends that all RCM groups use simulations in the ESGF. Therefore, we hope that all CORDEX-EA members will be involved in providing materials using ESGF. We will provide the **recommended variables of CORDEX-core** of the **CORDEX-EA domain** using the ESGF data node. (variable list: <http://www.cordex.org/wp-content/uploads/2018/11/CORDEX-CORE-Archive-Variables-Final.xlsx ods>)

All CORDEX simulations have to be formatted according to the CORDEX archive specifications and to the CORDEX variables requirement tables and undergo strict quality control (QC) before being published on the CORDEX-ESGF data nodes. It is strongly recommended that all RCM groups should firstly run the CORDEX QC at their home modelling centre, if resources allow. The CORDEX QC (**QA-DKR2**) is openly available here. (<https://air-dkr2.readthedocs.io/en/latest/introduction.html>)

If you want, we will send a sample file with QC completed.

If you have any other questions, please contact me.

I sincerely appreciate your cooperation.

Best Regards,

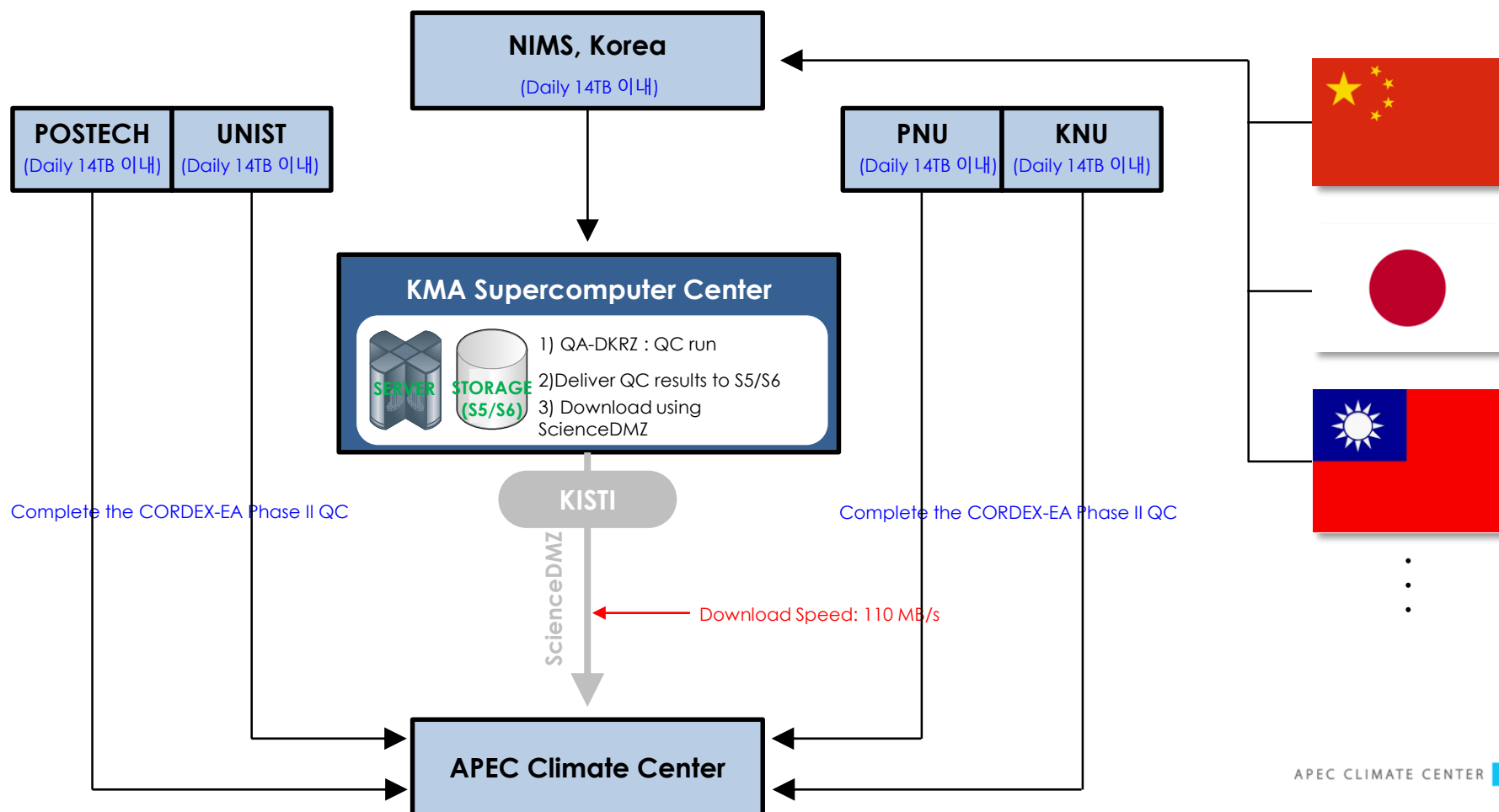
Kim Jin-Uk, NIMS

*MRI-JMA: Meteorological Research institute- Japan Meteorological Agency

*IAP-CAS: Institute of Atmospheric Physics-Chinese Academy of Sciences

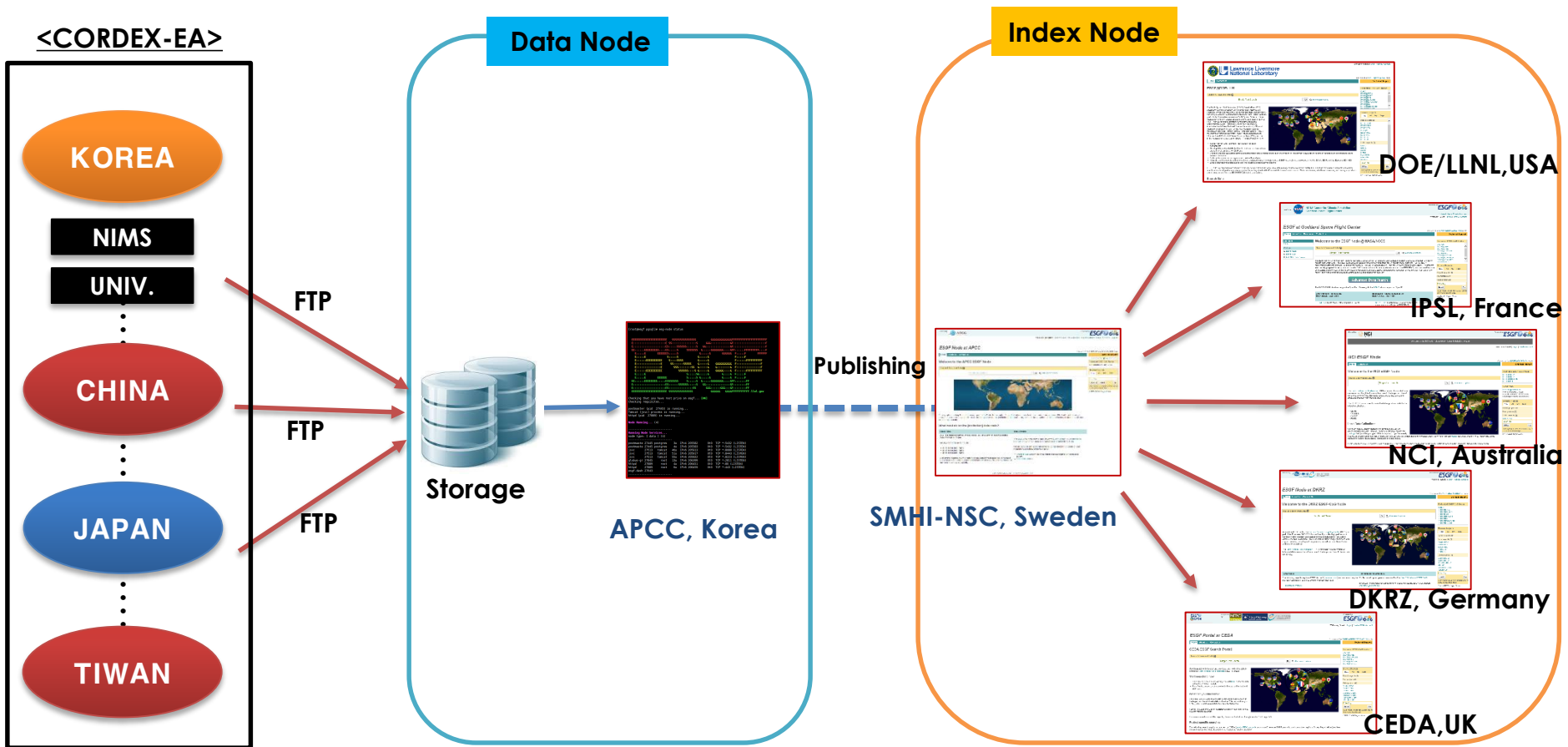
20. Cooperate with East Asia countries

- Data transfer diagram between Korea and other countries



21. Data distribution to ESGF Index Node

- Data distribution is only possible on APCC System (at Data Node).



NCI: national Computational Infrastructure

Thank you.

- *APEC Climate Center, Korea*
- *Email: goal@apcc21.org*