mapping controversies on climate change adaptation

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médialab Sciences-Po Paris

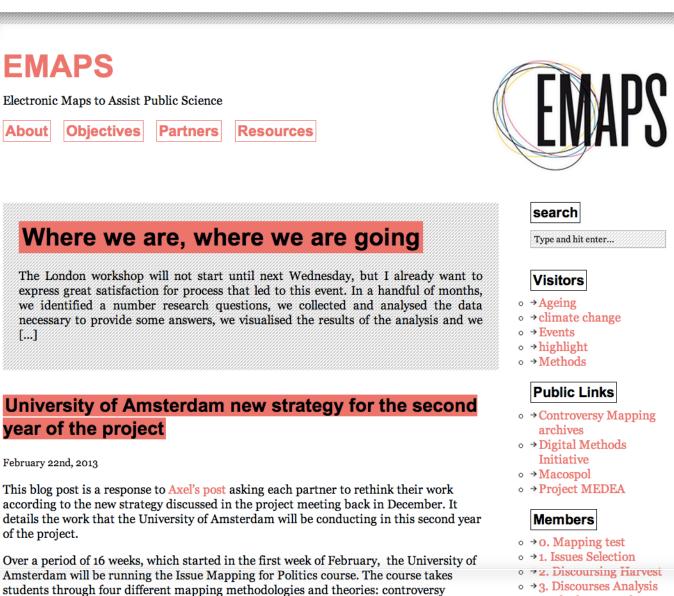
Controversy Mapping

- Introduced by Bruno Latour some 20 years ago, to train students in the investigation of sociotechnical debates
- Currently taught in Paris, Copenhagen, Milan, Manchester, Amsterdam, Liège, Padova, Trento, Buenos Aires...
- Developed by 4 collaborative projects
 - MACOSPOL (mapping controversies on science for politics) 2007-09
 - MEDEA (mapping environmental debates on adaptation) 2011-14
 - EMAPS (electronic maps to assist public science) 2011-14
 - FORCCAST (formation à la cartographie des controverses pour l'analyse de sciences et des techniques) 2012-20
- Venturini, T. (2010). Diving in magma: how to explore controversies with actornetwork theory. Public Understanding of Science, 19(3), 258–273.
- Venturini, T. (2012). Building on faults: how to represent controversies with digital methods. Public Understanding of Science, 21(7), 796 – 812.

EMAPS

http://www.emapsproject.com/blog/

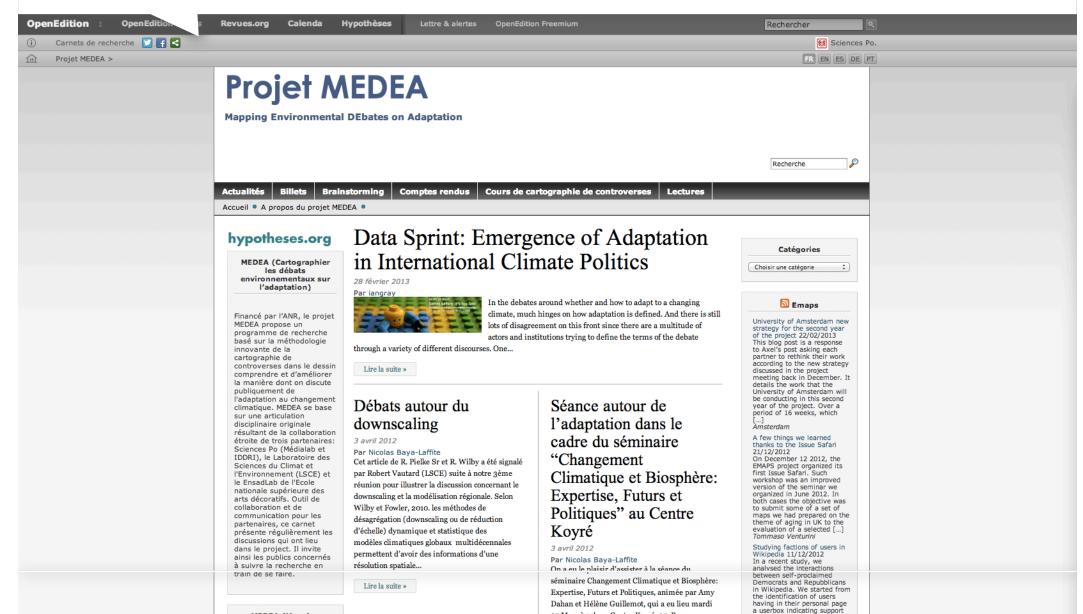
→4. Platform Development



mapping in the style of Bruno Latour and Tomasso Venturini, risk cartography using

MEDEA

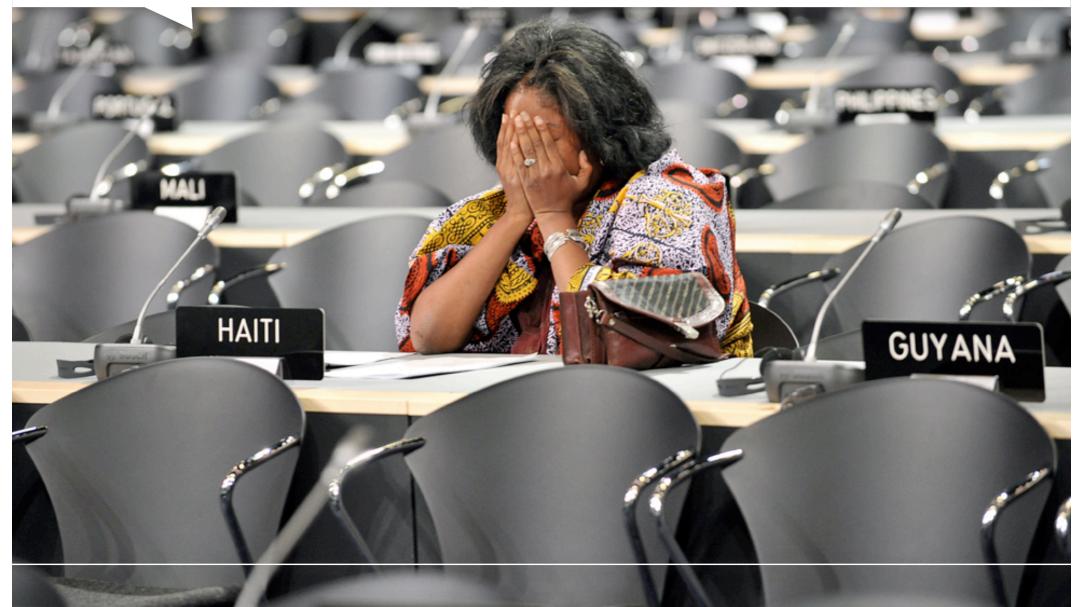
http://projetmedea.hypotheses.org/



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And now what?

UNFCC COP15 Copenhagen (2009)



Research questions

- 1. Which is the genealogy and evolution of the adaptation approach? What does the encounter with climate change do to the concept of adaptation?
- 2. What does the focus on adaptation do to debates on climate change?
- 3. How adaptation has been seen as opposed/complementary to mitigation?
- 4. Which arguments were used, and by whom, to bring adaptation to the fore? Which arguments have been abandoned or retained? How did arguments transformed over time to gain support?
- 5. How is the adaptation challenge being framed in developed and developing countries? Which are the political effects of the multiple framings? Who is driving them in each context?
- 6. How has this "Adaptation turn" affect the role and influence of different research communities in the networks of knowledge production?

EMAPS & MEDEA: The research objectives

To deploy the complexity of adaptation debate



And make it legible for the concerned publics

Analyze and render the viewpoints, the alliances and the arguments of all actors involved in the climate adaptation debate

The contradiction of controversy mapping

Observe controversies in all their richness



Provide the public with a readable description

Be as subtle and precise as qualitative method

Investigate phenomena as global as quantitative methods

A experimental solution

developing an atlas of online controversy maps

Observe controversies in all their richness



Provide the public with a readable description

Investigate phenomena as Be as subtle and precise as qualitative method global as quantitative methods drawing on the growing availability of digital traces

The controversy atlas

WHAT are the issues? - From statements to debates
 A. Tree of disagreement

2. WHO is debating them? - From debates to actorsB. Actors/arguments table

3. HOW are actors connected? - From actors to networks

C. Actors-networks diagram

4. WHERE do the debates occur? - From networks to cosmosesD. Debate scale

5. WHEN do they develop? - From cosmoses to cosmopoliticsE. Debate dynamics

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1. From statements to debates (what)

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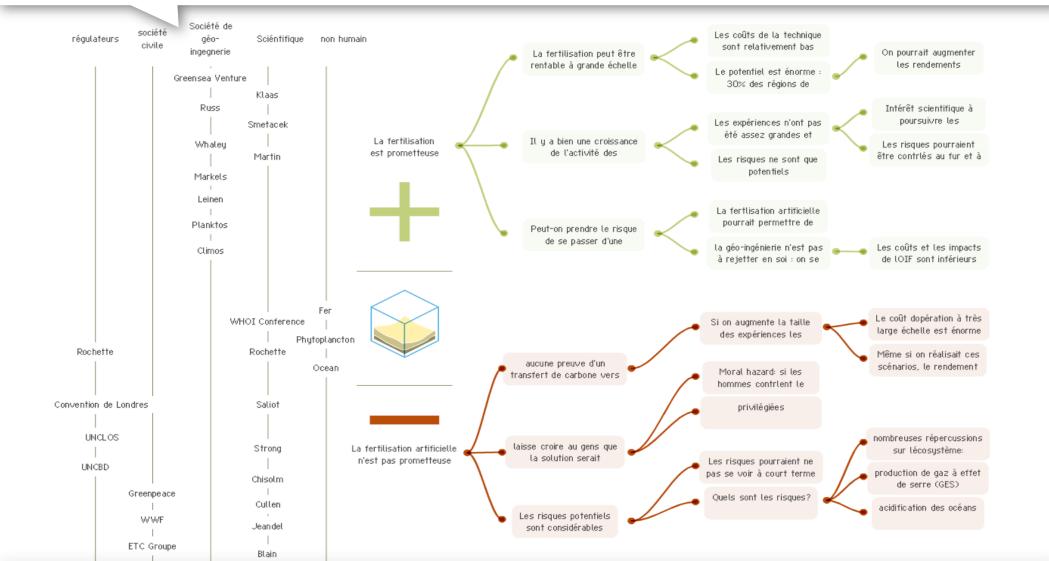
From statements to debates (what)

″<u>≡</u>"

From debates to actors (who) From actors to networks (how) From networks to cosmoses (where) From cosmoses to cosmopolitics (when)

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A. Tree of disagreement



http://medialab.sciences-po_fr/controversies/2010/Copenhague1/flash/fertilisation_ocean.swf

Earth Negotiations Bulletin (ENB)

http://www.iisd.ca/vol12/



Earth Negotiations Bulletin COP 18

A Reporting Service for Environment and Development Negotiations Online at http://www.iisd.ca/climate/cop18/enb/

Vol. 12 No. 567 Published by the International Institute for Sustainable Development (IISD) Tuesday, 11 December 2012

SUMMARY OF THE DOHA CLIMATE CHANGE CONFERENCE: 26 NOVEMBER – 8 DECEMBER 2012

The United Nations Climate Change Conference in Doha, Qatar, took place from 26 November to 8 December 2012. It included the eighteenth session of the Conference of the Parties (COP 18) to the United Nations Framework Convention on Climate Change (UNFCCC) and the eighth session of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (CMP 8). The conference also included meetings by five subsidiary bodies: the thirty-seventh sessions of the Subsidiary Body for Scientific and Technological Advice (SBSTA 37) and the Subsidiary Body for Implementation (SBI 37), the second part of the seventeenth session of the Ad hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP 17), the second part of the fifteenth session of the Ad hoc Working Group on Longterm Cooperative Action under the UNFCCC (AWG-LCA 15) and the second part of the Ad hoc Working Group on the Durban Platform for Enhanced Action (ADP 1).

Marking the first time that UN climate change negotiations took place in the Middle East, the conference drew approximately 9,000 participants, including 4,356 government officials, 3,956 representatives of UN bodies and agencies, intergovernmental organizations and civil society organizations, and 683 members of the media.

Negotiations in Doha focused on ensuring the implementation of agreements reached at previous conferences. The package of "Doha Climate Gateway" decisions adopted on the evening of Saturday, 8 December, included amendments to the Kyoto Protocol to establish its second commitment period. Having been launched at CMP 1 in 2005, the AWG-KP terminated its work in Doha. The parties also agreed to terminate the AWG-LCA and negotiations under the Bali Action Plan. Key elements of the nutreence field correct to correct the c While developing countries and observers expressed disappointment with the lack of ambition in outcomes on Annex I countries' mitigation and finance, most agreed that the conference had paved the way for a new phase, focusing on the implementation of the outcomes from negotiations under the AWG-KP and AWG-LCA, and advancing negotiations under the ADP.

A BRIEF HISTORY OF THE UNFCCC AND THE KYOTO PROTOCOL

The international political response to climate change began with the adoption of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992, which sets out a framework for action aimed at stabilizing atmospheric concentrations of greenhouse gases (GHGs) to avoid "dangerous

IN THIS ISSUE

A Brief History of the UNFCCC and the Kyoto Protocol .1

| Report of the Doha Climate Change Conference3 |
|---|
| Conference of the Parties |
| Conference of the Parties serving as the Meeting of |
| the Parties to the Kyoto Protocol |
| COP 18 and CMP 8 Joint High-level Segment 8 |
| Ad Hoc Working Group on Long-term Cooperative |
| Action under the UNFCCC8 |
| Ad Hoc Working Group on Further Commitments for |
| Annex I Parties under the Kyoto Protocol |
| Ad Hoc Working Group on the Durban Platform for |
| Enhanced Action |
| Subsidiary Body for Implementation |
| Subsidiary Body for Scientific and Technological |
| Advice |
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A Drief Analysis of the Dobe Climate Change

Earth Negotiations Bulletin (ENB)

http://www.iisd.ca/vol12/

- Published by the International Institute for Sustainable Development (IISD) reports on over 30 multilateral negotiations on climate change, biodiversity, and sustainable development issues, beginning from Rio 1992
- Our corpus = 600 issues of the volume 12, covering the UNFCCC process since 1995, starting with the first UNFCCC Conference of the parties in Berlin.
- With about 600 documents (in HTML and PDF), including daily reports and summaries of meetings

IPCC reports

http://ipcc.ch/publications_and_data/ publications_and_data_reports.shtml

IPCC First Assessment Report 1990 (FAR)

(OUT OF PRINT) Digitized by the Digitization and Microform Unit, UNOG Library, 2010







Working Group I: Scientific Assessment of Climate Impacts Assessment of Climate Change CLICK HERE

Working Group II: Working Group III: The IPCC Response Strategies Change CLICK HERE CLICK HERE



IPCC Third Assessment Report: Climate Change 2001 (TAR)









Working Group I: The Scientific Basis

Working Group II: Impacts, Adaptation and Vulnerability

Synthesis Report

IPCC Second Assessment Report: Climate Change 1995 (SAR)

(OUT OF PRINT) Digitized by the Digitization and Microform Unit, UNOG Library, 2010

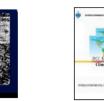




Working Group I: The Science of Climate Change Full Report (PDF)

Working Group II: Impacts, Adaptations and Mitigation of Climate Change: Dimensions of Climate Change Scientific-Technical Analyses

Full Report (PDF)



Working Group III:

Economic and Social

Full Report (PDF)

IPCC Second Assessment Full Report (PDF) Errata

IPCC Fourth Assessment Report: Climate Change 2007 (AR4)

IPCC statement on the melting of Himalayan glaciers - 20 January 2010 (PDF)



"The Physical Science Basis"





Working Group III Report The AR4 Synthesis Report "Mitigation of Climate Change"





Working Group III:

Mitigation

IPCC reports

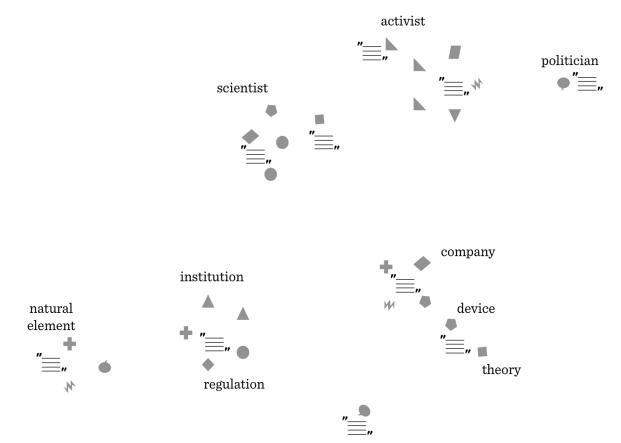
http://ipcc.ch/publications_and_data/ publications_and_data_reports.shtml

- 4 multivolume assessment reports
 - 1990 First Assessment Report (FAR)
 - 1995 Second Assessment Report (FAR)
 - 2001 Third Assessment Report (TAR)
 - 2007 Fourth Assessment Report (AR4)
 - 2013/14 Fifth Assessment Report (AR5)
- 3 working groups
 - Working Group I (WG I): physical aspects of climate change
 - Working Group I (WG II): adaptation, impacts and vulnerability
 - Working Group III (WG III): mitigation of climate change

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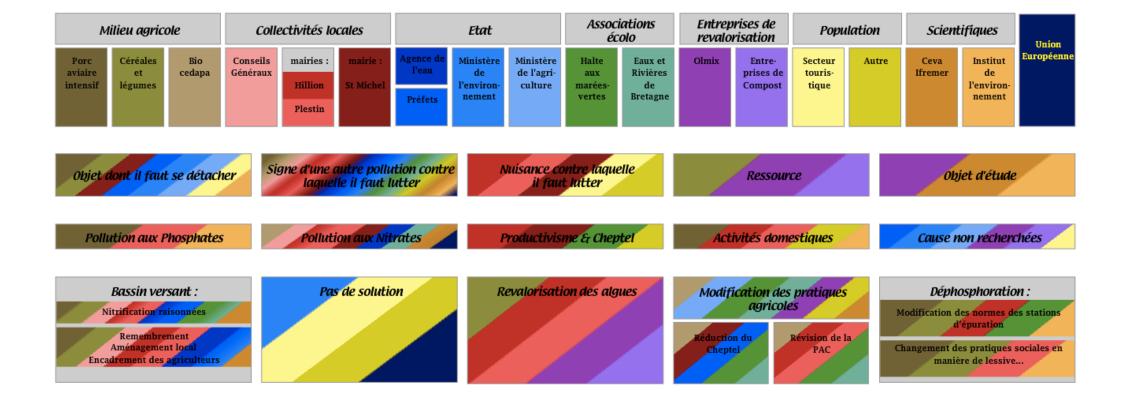
2. From debates to actors (who)

From statements to debates (what) From debates to actors (who) From actors to networks (how) From networks to cosmoses (where) From cosmoses to cosmopolitics (when)



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B. Table of actors/arguments



http://medialab.sciences-po.fr/controversies/2007/marees_vertes/schemassi.swf

Scientific Literature

http://www.scopus.com http://webofknowledge.com

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| Your query: TITLE-ABS-H | KEY(("climat | change" OR "global warming") AND (adapt* OR vulnerab* OR resilien*)) | | | | |
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| lefine results | | Document title | Author(s) | Date 2013 | Source title Marine Policy 40 (1), pp. 154-159 | Cited b |
| Limit to Exclu | ide | Securing ocean benefits for society in the face of climate change | Ruckelshaus, M., Doney, S.C., Galindo, H.M., Barry, J.P., Chan, F., Duffy, J.E., English, C.A., (), Talley, L.D. | 2013 | Manne Policy 40 (1), pp. 154-159 | U |
| fear | * | Find full text View at publisher 📮 Show abstract Related documents | | | | |
| 2013 2012 | (636) > (2,889) > | Transforming existing weather data for worldwide locations to enable energy and building performance simulation under future climates | Jentsch, M.F., James, P.A.B., Bourikas, L., Bahaj, A.S. | 2013 | Renewable Energy 55 , pp. 514-524 | 0 |
| 2011 | (2,664) > (2,053) > | Find full text View at publisher 📮 Show abstract Related documents | | | | |
| 2009 /iew more | (1,638) > | Climate warming mediates range shift of two differentially adapted stenothermal Drosophila species in the Wester Himalayas | rn Parkash, R., Ramniwas, S., Kajla, B. | 2013 | Journal of Asia-Pacific Entomology 16 (2) , pp. 147 153 | 7- 0 |
| uthor Name | \$ | Find full text View at publisher 📮 Show abstract Related documents | Welter I. Heir D. Beiedwitelein O. Hermond V. | 2042 | Sail Dislam and Dischargists (2) and (2) 40 | 0 |
| Nicholls, R.J. Rosenzweig, C. | (43) > (36) > | Combined effects of multifactor climate change and land-use on decomposition in temperate grassland | Walter, J., Hein, R., Beierkuhnlein, C., Hammerl, V., Jentsch, A., Schädler, M., Schuerings, J., Kreyling, J. | 2013 | Soil Biology and Biochemistry 60 , pp. 10-18 | 0 |
| Ford, J.D. | (36) > | Find full text View at publisher Show abstract Related documents Pathways of integrated coastal management from national policy to local implementation: Enabling climate changement | e Celliers, L., Rosendo, S., Coetzee, I., Daniels, G. | 2013 | Marine Policy 39 (1) , pp. 72-86 | 0 |
|) Smit, B.) Tol, R.S.J. | (34) > (34) > | adaptation | | 2010 | Manno / Snoy 65 (1), pp. 12-56 | Ŭ |
| ïew more | | Find full text View at publisher 📮 Show abstract Related documents | | | | |
| Subject Area | ٢ | The impact of climate change on prawn postlarvae fishing in coastal Bangladesh: Socioeconomic and ecological perspectives | Ahmed, N., Occhipinti-Ambrogi, A., Muir, J.F. | 2013 | Marine Policy 39 (1) , pp. 224-233 | 0 |
| Environmental Science | (7,579) > | Find full text View at publisher 📮 Show abstract Related documents | Zanan B. Varanaa S | 2012 | Land Une Policy 22, pp. 242 355 | 0 |
| Agricultural and Biological Sciences Earth and Planetary | (4,904) > (3,427) > | Climate change, urban energy and planning practices: Italian experiences of innovation in land management tools Find full text View at publisher Show abstract Related documents | Zanon, B., Verones, S. | 2013 | Land Use Policy 32 , pp. 343-355 | U |
| Sciences Social Sciences Engineering | (2,636) > (1,176) > | Responses to climate change and farming policies by rural communities in northern China: A report on field observation and farmers' perception in dryland north Shaanxi and Ningxia | Sjögersten, S., Atkin, C., Clarke, M.L., Mooney, S.J., Wu, B., West, H.M. | 2013 | Land Use Policy 32 , pp. 125-133 | 0 |
| /iew more | | Find full text View at publisher I Show abstract Related documents | _, _ , _ , , _ , , _ , , _ , , _ , , _ , , _ , , _ , , _ , , _ , , _ , , _ , , _ , , _ , , _ , , _ , | | | |
| Document Type | * | Climate adaptation: Institutional response to environmental constraints, and the need for increased flexibility, | Amaru, S., Chhetri, N.B. | 2013 | Applied Geography 39 , pp. 128-139 | 0 |
| Article Conference Paper | (10,790) > (1,714) > | 9 participation, and integration of approaches Find full text View at publisher I Show abstract Related documents | | | | |
| Article in Press | (1,680) > (456) > (125) > | Long-term water regime differentiates changes in decomposition and microbial properties in tropical peat soils exposed to the short-term drought | Kwon, M.J., Haraguchi, A., Kang, H. | 2013 | Soil Biology and Biochemistry 60 , pp. 33-44 | 0 |
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| | | Effects of the spatial resolution of climate data on estimates of biogenic isoprene emissions | Pugh, T.A.M., Ashworth, K., Wild, O., Hewitt, C.N. | 2013 | Atmospheric Environment 70, pp. 1-6 | 0 |

Scientific Literature

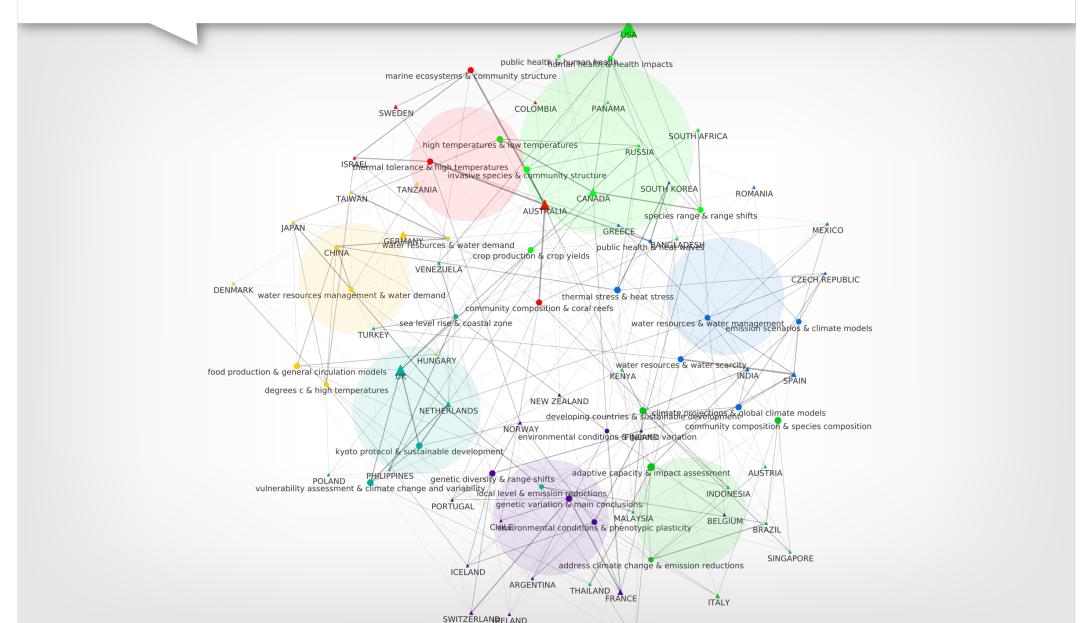
http://www.scopus.com http://webofknowledge.com

- 10.658 bibliographic notices extracted from the WoK from 1992 to 2012
- 14.087 bibliographic notices extracted in Scopus from 1991 to 2013
- In both cases, we used the query: ("climate change" OR "global warming") AND (adapt* OR vulnerab* OR resilien*)

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Scientific Literature

http://cortext.net/



UNFCCC documents

http://unfccc.int/documentation/documents/ advanced_search/items/3594.php

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| Document Lists | | | | | | | | |
| Submissions from Parties | Symbol number | | | | | | | |
| Workshops Documentation | Title or abstract | | | | | | | |
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| FOCUS | Keyword | Start typing or choose | | | | | | |
| Adaptation | Document type | Document type Meeting documents - Submissions by parties and organizations | | | | | | |
| Finance | | | | | | | | |
| Mitigation | Country | Start typing or choose | | | | | | |
| Technology | Meeting / Session | Start typing or choose | | | | | | |
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| Essential Background | | | | | | | | |
| Kyoto Protocol | | | | | | | | |
| Cooperation & Support | 4 00 -5000 | | | | | | | |
| Adaptation | 1 - 20 of 839 results - sort | by date ‡ | | | | | | |
| National Reports | document is available | document is stil | l under preparati | on | | | | |
| GHG Data | | | | | | | | |
| Methods & Science | Symbol / Text | | Date | Туре | | Status | Versions | |
| Parties & Observers | FCCC/AWGLCA/2012 | FCCC/AWGLCA/2012/CRP.16 | | 4 Dec 2012 submissions by parties and organizations | | Published | EN | |
| Press | Submission from the Afri | ican States | | | | 1 | | |
| Secretariat | Submission from the Afri | ican States. | | | | | | |
| | FCCC/AWGLCA/2012 | /MISC 3/Add 4 | 4 Dec 2012 | submissions by | parties and organizations | Published | EN | |

UNFCCC documents

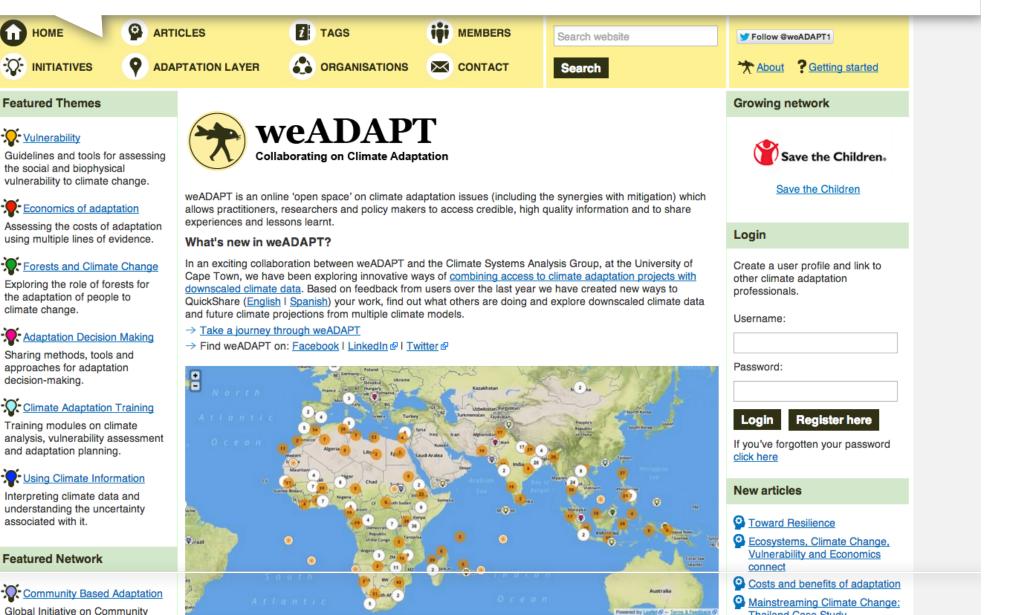
http://unfccc.int/documentation/documents/ advanced_search/items/3594.php

- 839 positions papers submitted to the UNFCCC
- All document present in the UNFCCC database and tagged as Document type = "Meeting documents - Submissions by parties and organizations"

weADAPT.org

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www.weadapt.org



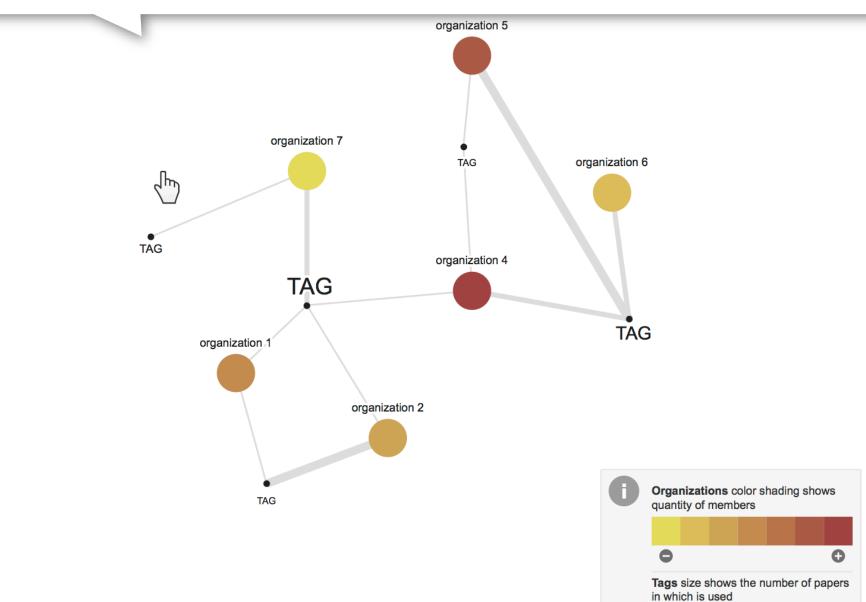
weADAPT.org

www.weadapt.org

- "weADAPT is an online 'open space' on climate adaptation issues which allows practitioners, researchers and policy makers to access credible, high quality information and to share experiences and lessons learnt"
- We have access to the entire weADAPT database including information on
 - initiatives
 - projects
 - tags

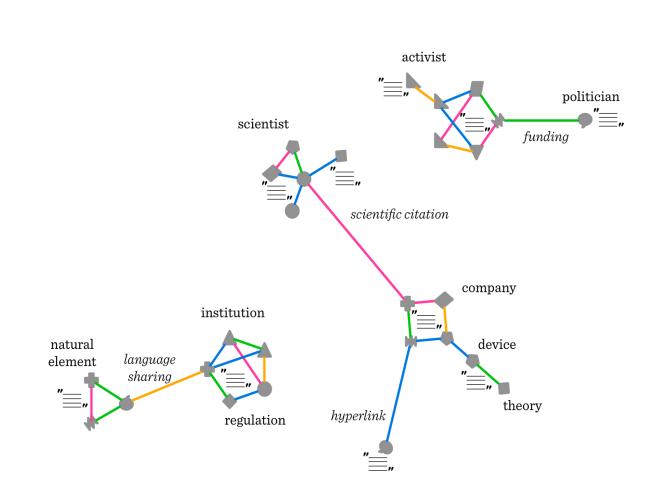
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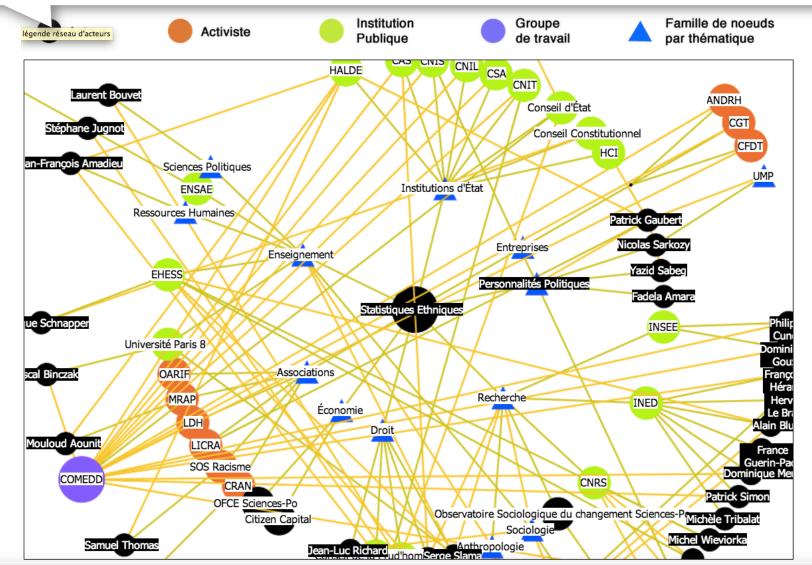
From actors to networks (how)



From statements to debates (what) From debates to actors (who) From actors to networks (how) From networks to cosmoses (where)

From cosmoses to cosmopolitics (when)

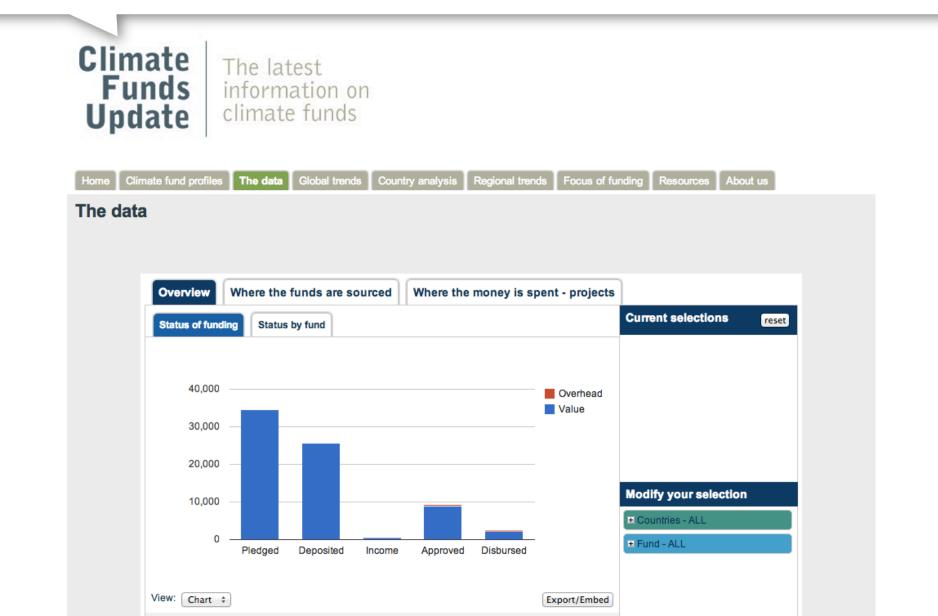
C. Actor-network diagram



http://controverses.sciences-po.fr/archive/statistiquesethniques/reseau_acteurs.php

Climate Funds Update

http://www.climatefundsupdate.org/



Climate Funds Update

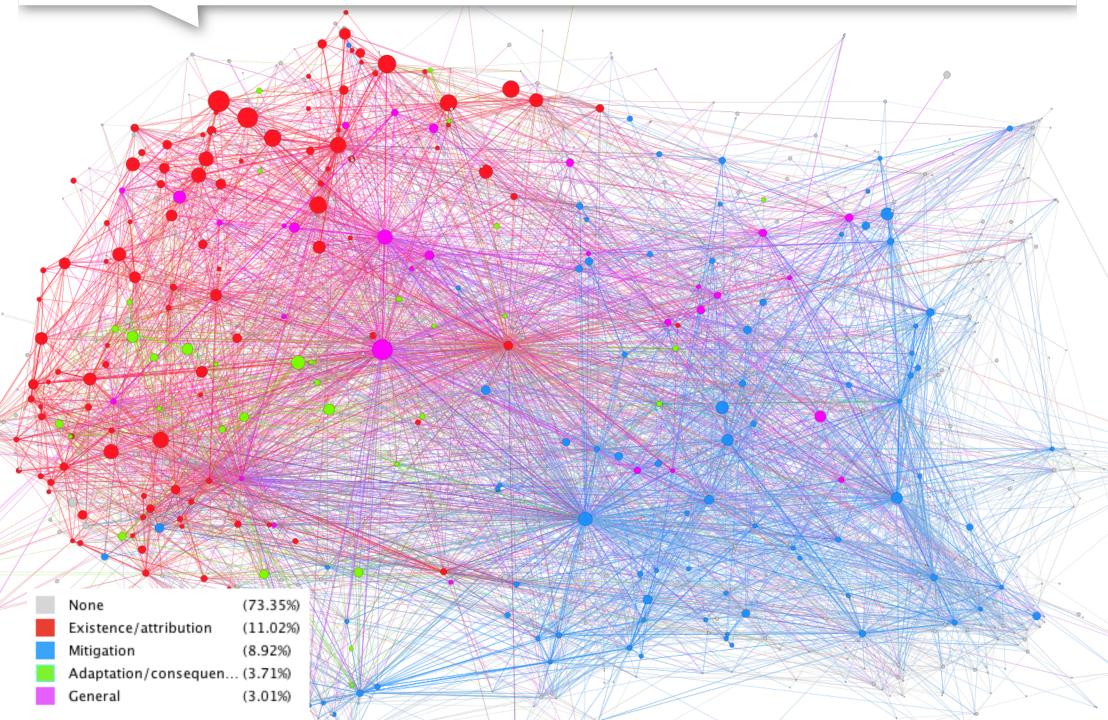
http://www.climatefundsupdate.org/

- A joint initiative of the Heinrich Böll Stiftung and the Overseas Development Institute
- Data is cumulative since 2003 and is updated every 2 months
- Information are collected from:
 - Fund website
 - Official reporting to international organisations
 - Press releases, decisions at conferences, NGOs information
- Data contains information on
 - status of finances (pledges, deposited, approved, disboursed)
 - type of finance (grants, technical assistance, loans, credits, guaratees...)
 - type of expenditure (overhead, projects, incomes)
 - type of donor and type of receiver

- ...

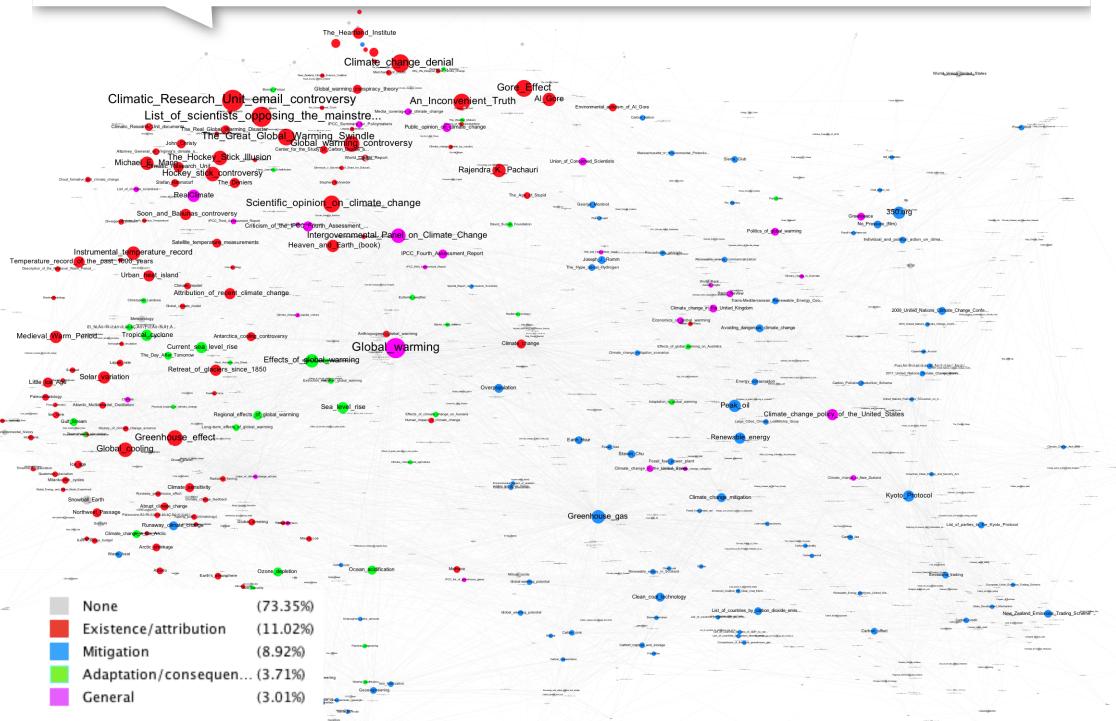
Web Cartography

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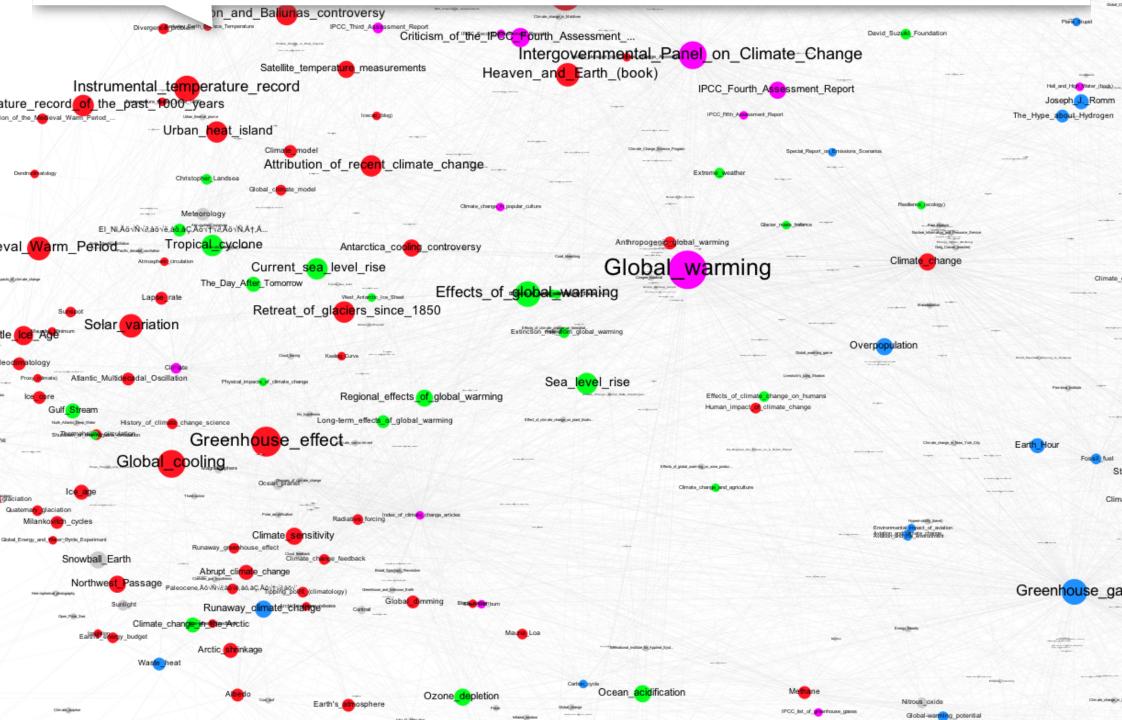
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Web Cartography

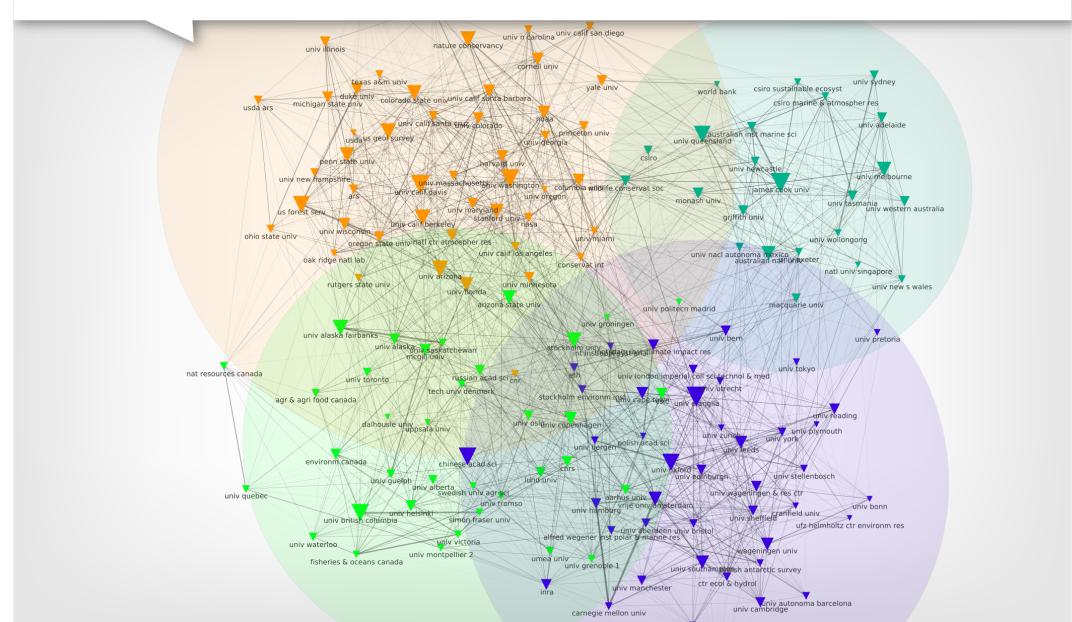
ex. Wikipedia



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③ Side Events & Exhibits

SB 38

Choose your session: Bonn Climate Change Conference - May 2012

[go to exhibits list]

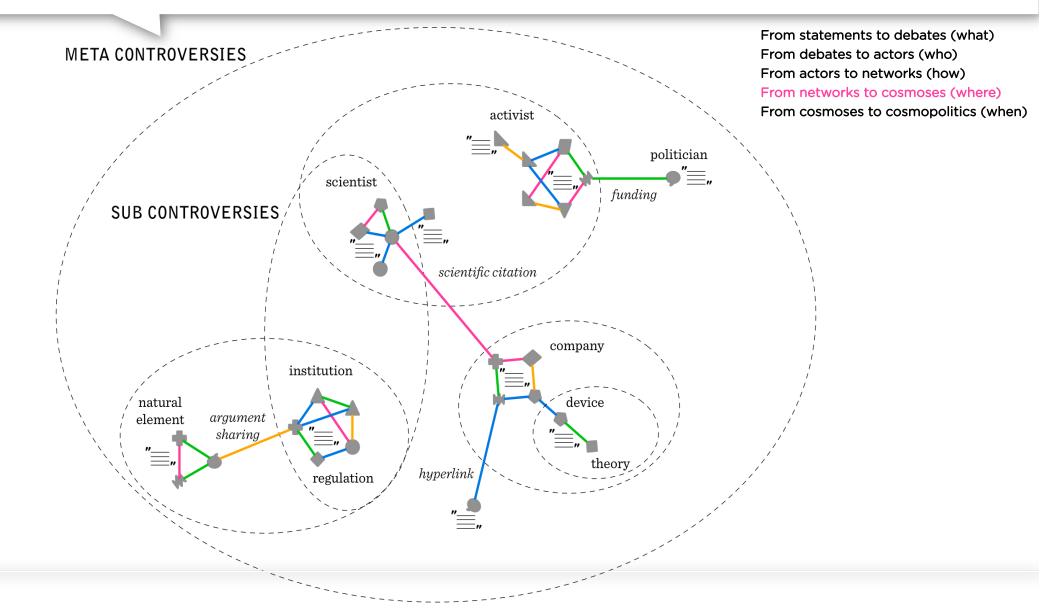
Side events schedule

| Title/theme/speakers | Organizer | Date | Attachments | |
|---|--|----------------------------------|--|--|
| Launching Global Protocol for Community- Scale GHG Emissions (GPC) Developed by ICLEI and C40, in collaboration with WB-UNEP-UNHABITAT and WRI, Global Protocol for Community-Scale GHG Emissions (GPC) supports local, national, and global climate mitigation efforts by standardizing how communities quantify and report their GHG emissions. Speakers: High level representatives and experts of ICLEI, C40, WB, WRI | Yunus Arikan ICLEH-Local Governments for Sustainability (ICLEI) yunus.arikan@iclei.org +49 228 97629920 | Mon, 14 May 2012 Agenda [233 kb] | | |
| Latest submissions of national communications from non-Annex I Parties The side-event will consist of presentations of the latest submissions of national communications from non-Annex I Parties, followed by a Q&A session and general discussion. | Uazamo Kaura Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) ukaura@unfccc.int +49 228 8151474 | Mon, 14 May 2012 | Parties Presenting [459 kb] Presentation Outline [29 kb] Contact details of Presenters [30 kb] Belize [496 kb] Benin [527 kb] Gabon [3 Mb] Jamaica [111 kb] India [867 kb] Thailand [2 Mb] | |
| Loss & Damage: From regional Insurance pool to local weather protection in the Caribbean MCII presents updates from the Caribbean Adaptation & Insurance program which links disaster risk reduction & insurance through public-private partnership to help low-income people. Speakers: Koko Warner (moderation) Ekhosuehi Iyahen (CCRIF) Grenada representative (tbd) Jamaica representative (tbd) St. Lucia representative (tbd) Thomas Loster, Munich Re Foundation Richard | Koko Warner Munich Climate Insurance Initiative (MCII) warner@ehs.unu.edu +49 228 8250226 | Tue, 15 May 2012 | Caribbean Insurance & Adaptation Initiative [2 Mb] Local demand & product design for livelihood protection insurance [297 kb] Primary insurance views on insurance design in context of loss & damage [39 kb] Reinsurance perspective on trends in loss & damage related to weather extremes [1 Mb] | |

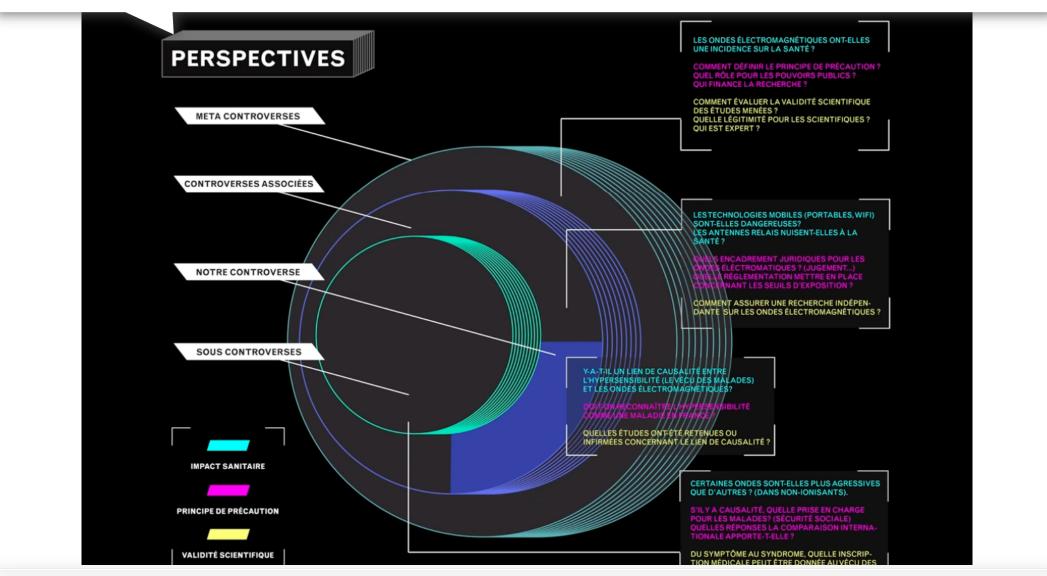
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4. From networksto cosmoses (where)



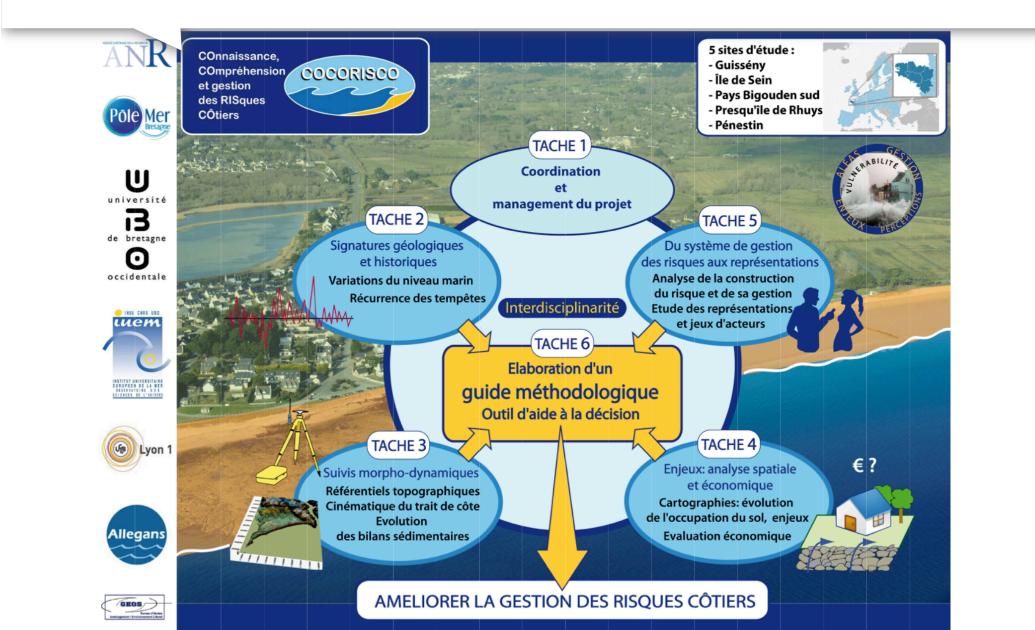
D. Debate scale



http://medialab.sciences-po.fr/controversies/2010/HypersensibiliteOndes/index.php/perspectives/

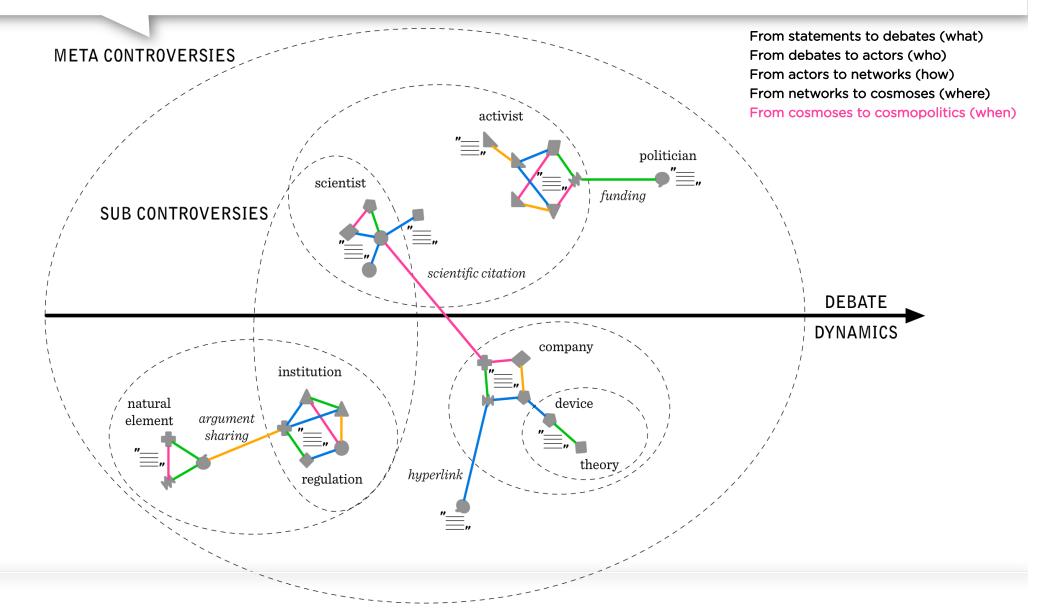
Cocorisco

http://www.cocorisco.fr/



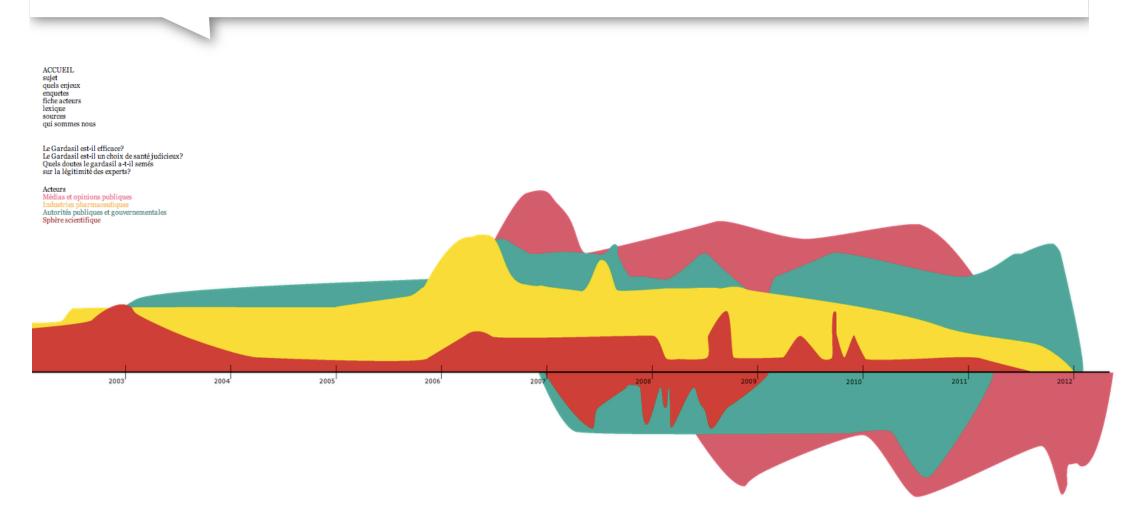
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5. From cosmoses to cosmopolitics (when)



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E. Debate dynamics



http://controverses.sciences-po.fr/archive/gardasil/

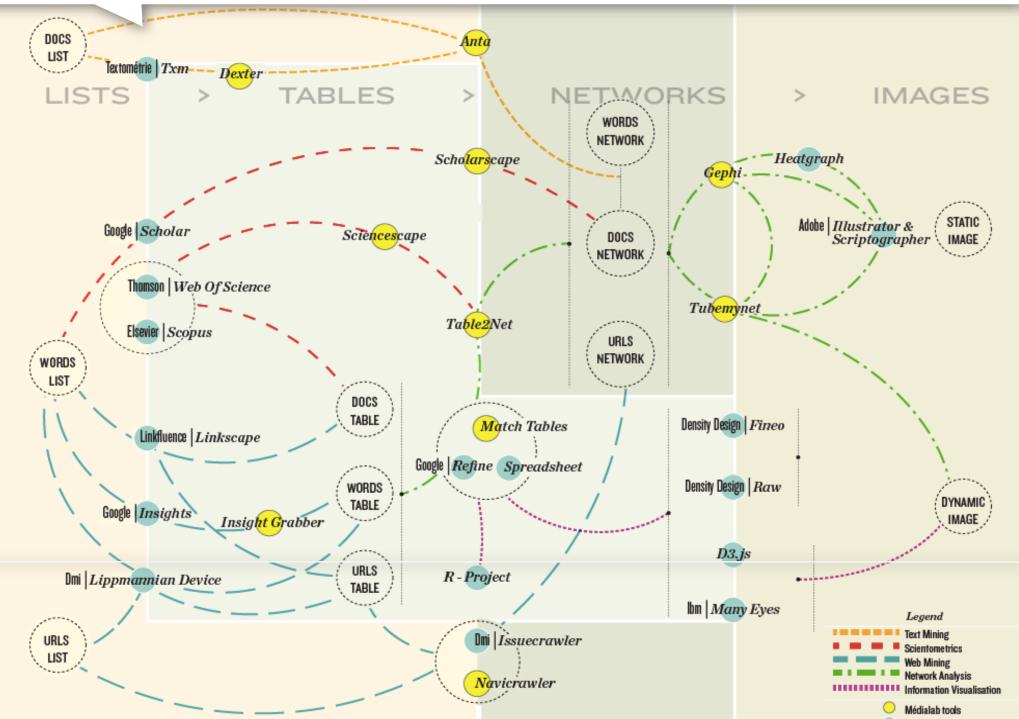
Scientific Literature

http://cortext.net/

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|------|--|---------|----------|---|---|
| | human health & health impacts | | | public health & human | health oublic health & heat waves |
| | crop production & crop yields | | | | human health & health impacts |
| | invasive species & community structure | | | climat food production & general circulation n | te projections & global climate models nodels emission scenari os & climate models |
| | | | | communi marine ecosystems & community str | ity composition & species composition |
| | high temperatures & low temperatures | | | 1 | community composition & coral reets |
| h | | | | degrees C & high temper | thermai etross & heat stress |
| | Kyoto Protocol & sustainable developr | nent | | | local level & emission reductions |
| | sea level rise & coastal zone | | vulnerab | ility assessment & climate change and var | developing countries & sustainable development daptive capacity & impact assessment |
| Ī | environmental conditions & genetic va | riation | | address climate change & emission redu | genetic variation 8. Main conclusions |
| | species range & range shifts | | | environmental conditions & phenotypic pla | genetic diversity & range shifts asticity |
| | water resources management & water | demand | | v water resources & water do | water resources & water scarcity emand |

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Our tools



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