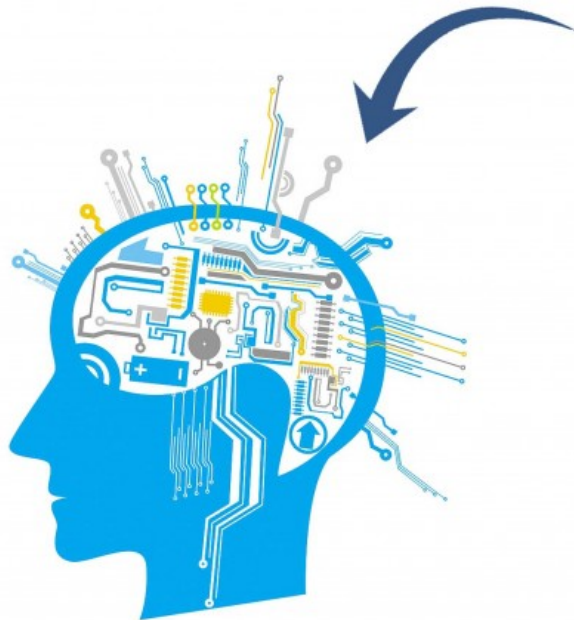


EXPERT FORUM

“Lessons Learned about Lessons Learned about Disaster Risk Reduction in a Changing Climate.”

February 10-13, 2015

Antalya, Turkey

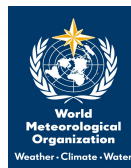
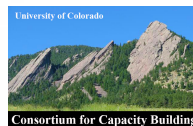


<http://resilienturbanism.org/dllemant/learning-lessons-learned-from-past-disasters/>



View Book & Agenda

Michael H. Glantz



GFDRL
Global Facility for Disaster Reduction and Recovery



Commemorating 3.11: Lessons Learned & Projects

What Disaster Response in Tohoku Has Taught Us. Click here ...



Every organization searches for lessons



A startup is a temporary organization formed to search for a sustainable*, repeatable and scalable business model.
- Steve Blank (*Ash Maurya helped me with "sustainable")



DAY 1

Tuesday, February 10, 2015

Opening Session

Notes

- **USAID**
- **Office of Foreign Disaster Assistance**
- **World Meteorological Organization**
- **Turkish State Meteorological Service**
- **Global Facility for Disaster Reduction and Recovery**
- **National Oceanic and Atmospheric Administration**
- **Consortium for Capacity Building/ INSTAAR/CU**

1st Session, Tuesday

9:00-9:45am

Why an Expert Forum:

Hydro-meteorological Disaster Risk Reduction (DRR) and a search for “resilient adaptation” to a changing climate

- Enhance existing effectiveness and efficiency of DRR programs
- Share experiences among the DRR programs
- Heighten awareness and concern about climate change and its consequences for extreme hydro-meteorological events
- Increase in the number and intensity of hydro-meteorological extremes in an age of flat-lined disaster-assistance budgets
- To make more effective the linkage between DRR & CCA
- Diagnosing institutional and individual resistance or obstacles to change



Adapted from: <http://baybridgehouse.org>

Forum Background:

What we hope to address



Source: anon.

At Issue: Share and listen to perspectives on “Lessons Learning about Lessons Learned” for DRR and CCA

At Issue: To outline 5 or more steps to improve the Lessons Learning process

Disaster risk reduction

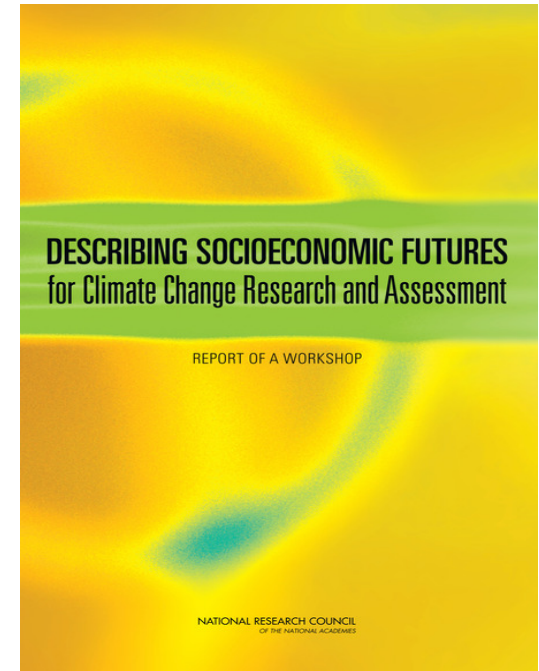
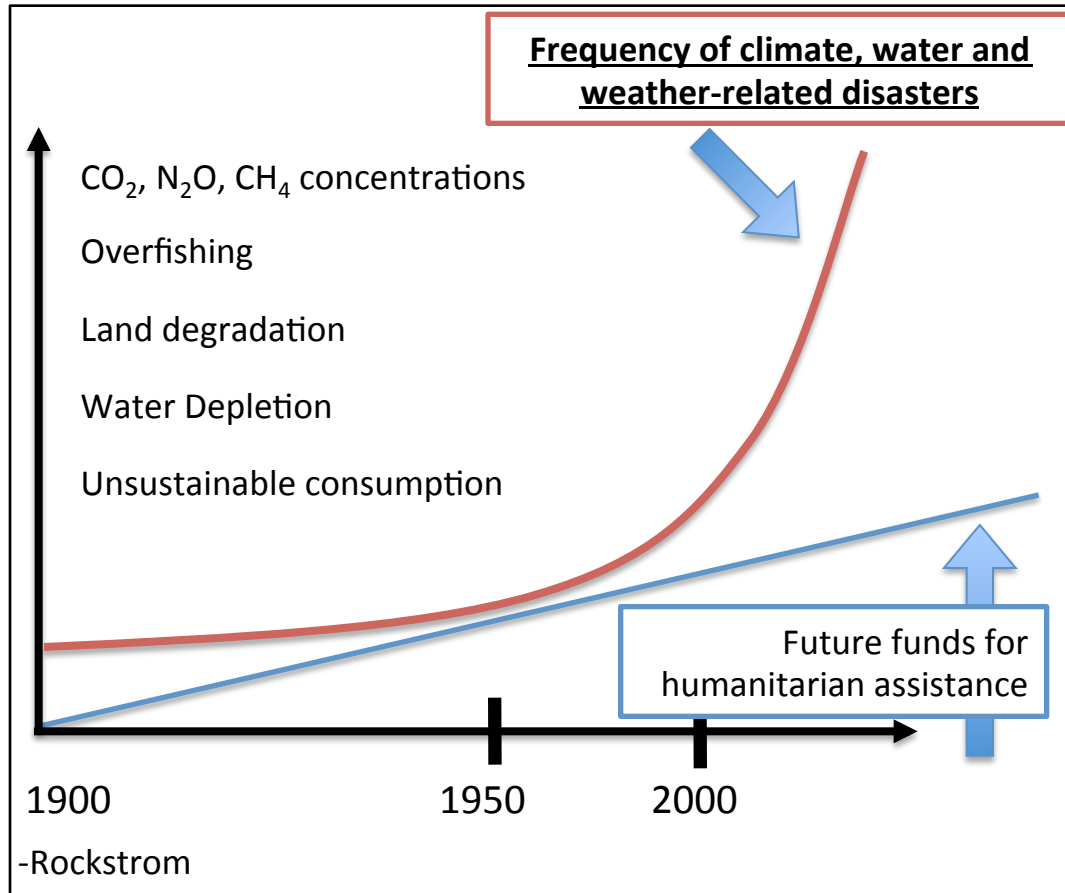
The concept and practice of reducing disaster risks through systematic efforts to analyze and manage the causal factors of disasters, including (1) through reduced exposure to hazards, (2) lessened vulnerability of people and property, (3) wise management of land and the environment, and (4) improved preparedness for adverse events.

-UNISDR Terminology

2nd Session, Tuesday

9:45-10:30am

The past 50 years has seen a dramatic degradation of the earth's natural capital



Global setting for DRR and for CCA

Notes

At Issue: Are we learning as fast as the world is changing?

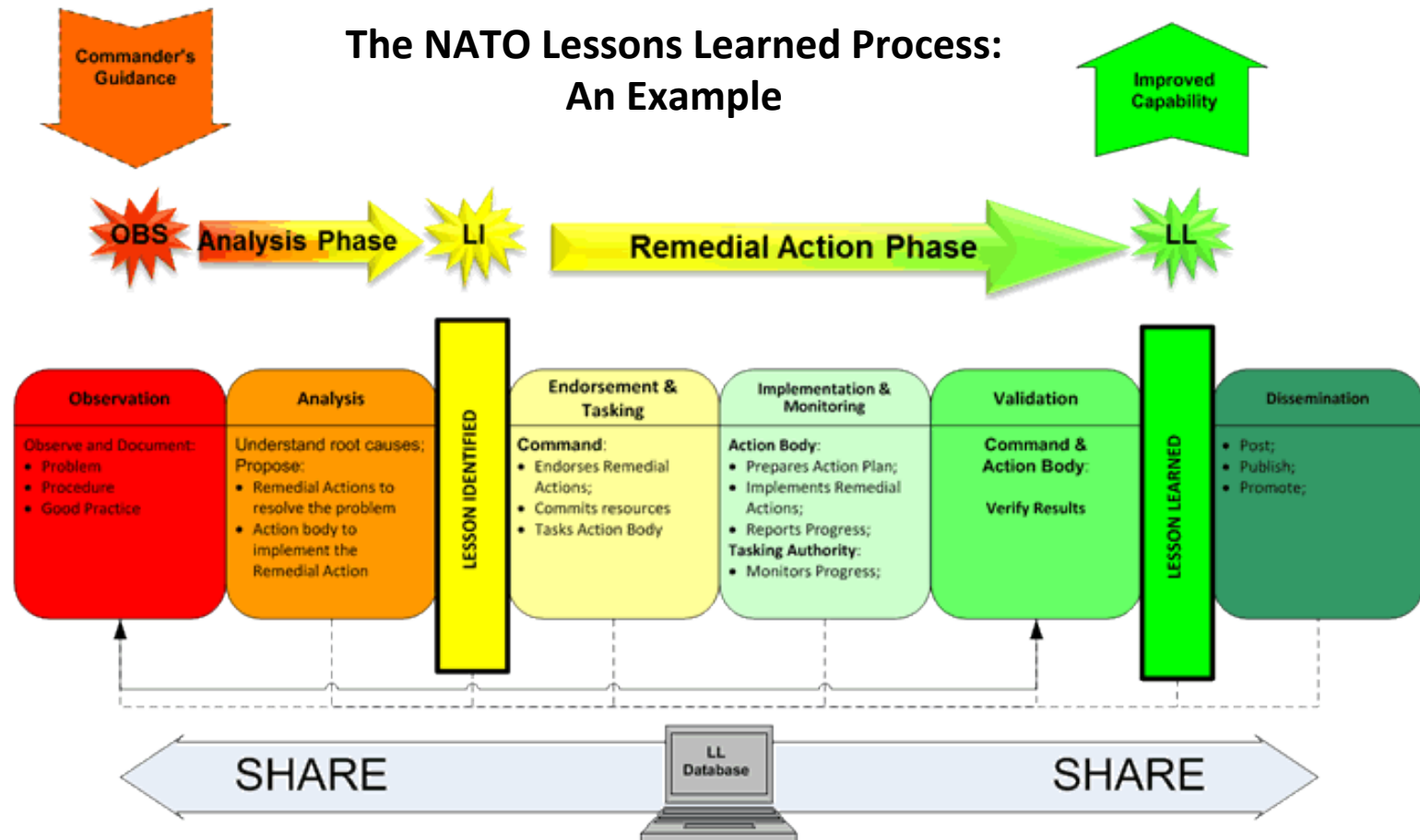
- Global warming continues
- Sustainable Development Goals (Post 2015 Agenda)
- The World Conference on Disaster Risk Reduction (HFA2)
- UNFCCC COP21, Paris
- The Kyoto Protocol era ends.
- Geo-political tensions
- Worldwide Economic Slowdown, Budget Constraints



<https://blogs.state.gov/stories/2014/04/17/fossil-fuel-subsidy-reform-roundtable-highlights-global-problem>

3rd Session, Tuesday

11:00- 11:45am



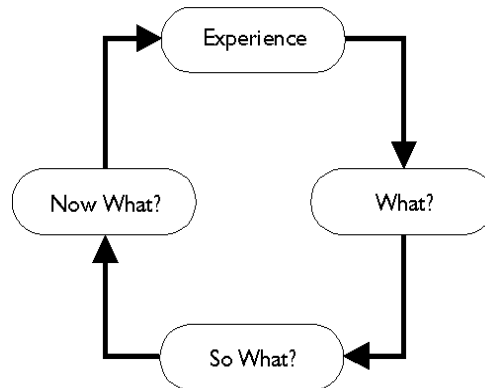
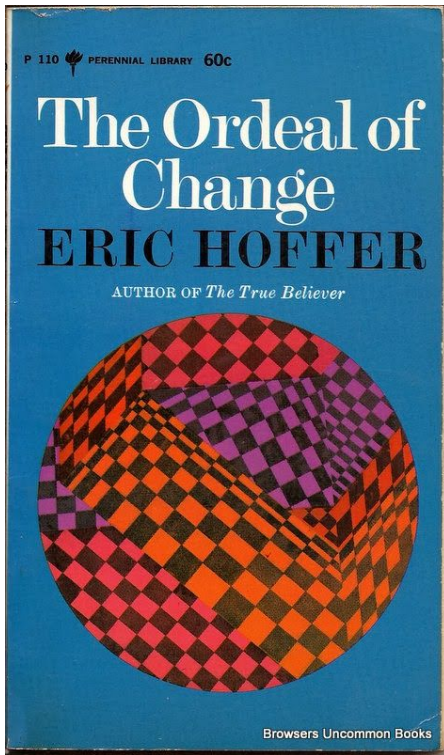
“The purpose of the NATO Lessons Learned capability is to learn efficiently from experience and to provide validated justifications for amending the existing way of doing things, in order to improve performance for (subsequent) operations.”

About Change. About Lessons.

**At Issue: Is the “Lessons Learning Process”
Working Effectively?**

Notes

Do people fear change?



<http://trinidadjoebert.blogspot.com>



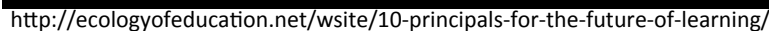
<http://www.drawkkwast.com/2011/06/the-strong-links/>

“A chain is as strong as its weakest link”

4th Session, Tuesday
11:45-12:30pm



sparkinsight.com



After 2 weeks,
we tend to remember ...



A Learning Framework

Notes

Question: Where do lessons come from?

Answer: Case Studies and Experience

**At Issue: Do DRR Case Study Lessons
and Experience from past disasters
“have a future?”**



www.middleweb.com/17899/todays-music-builds-understanding-history/

Notes

How to Scale Up



<http://blog.commlabindia.com/elearning-design/casestudies-scenarios-in-elearning>

One definition of a case study – a careful study of some social unit (as a corporation or division within a corporation) that attempts to determine what factors led to its success or failure



<http://filipnemec.com/70/>

Aspects of a Case Study

Notes

Why DRR lessons about past hazards and disasters matter



“You can’t connect the dots looking forward...”

-Steve Jobs

“And before you can connect the dots, you have to see the dots...”

- Mickey Glantz

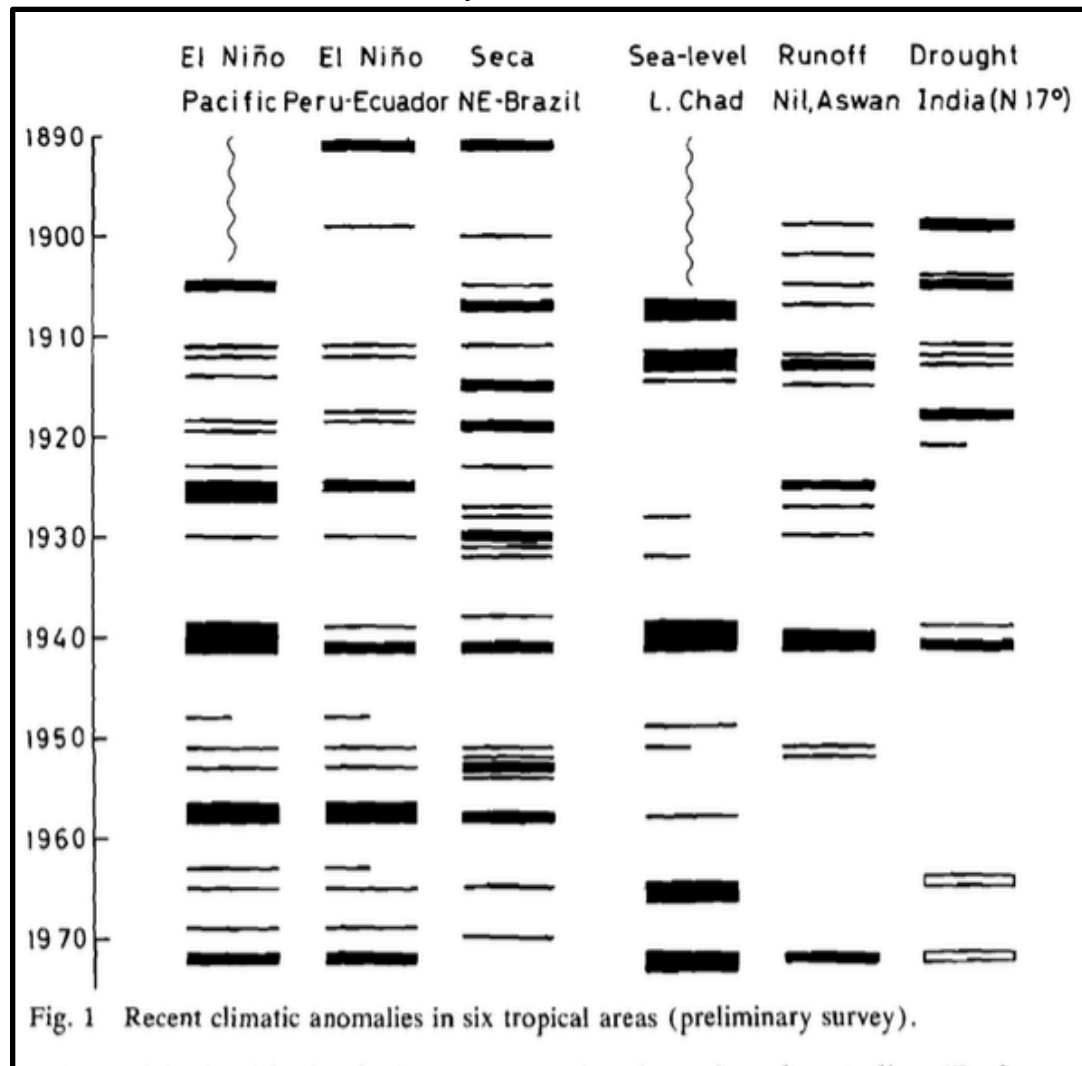


www.nelapps.com/connect-the-dotsmaker/

However, if you don’t admit there is a problem, then you don’t even look for dots!

El Niño Teleconnections

As identified by Flohn and Fleer, 1975*



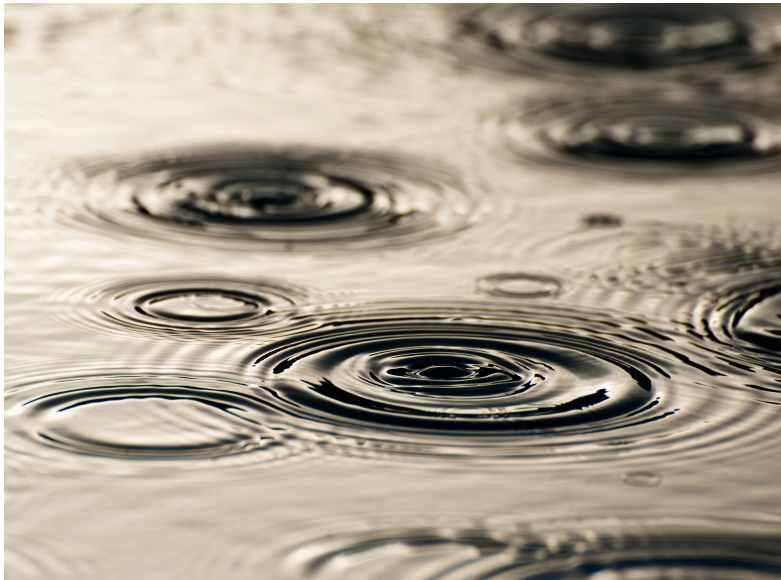
*Flohn and Fleer 1975. Climatic teleconnections with the equatorial pacific and the role of ocean/atmosphere coupling. www.tandfonline.com/loi/tato19

El Niño and Teleconnections

Lessons from case Studies

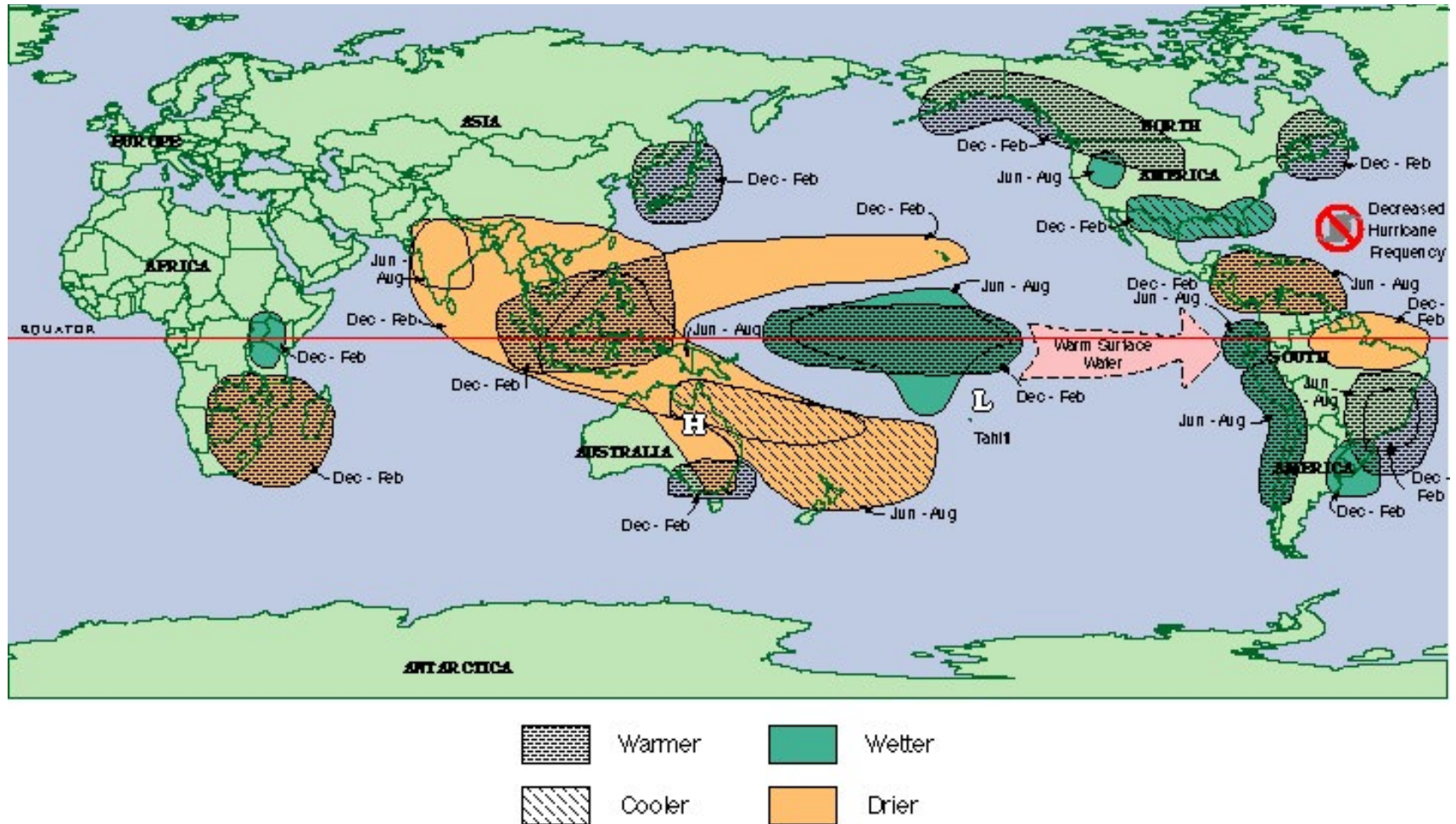
Notes

At Issue: Can case studies of reliable El Niño forecasts provide “re-usable” DRR (and CCA) information about its worldwide impacts (teleconnections)?”



<http://528squarefeet.blogspot.com/2014/11/the-ripple-effect.html>

El Niño can spawn Climate, Water & Weather hazards (called “**teleconnections**”)



Impacts of Climate Change, Climate Variability including El Niño & La Niña on each of these concerns:

- **Food**
 - **Agriculture**
 - Crops
 - Rangelands
 - **Marine**
 - Open ocean
 - Coastal & aquaculture
 - **Rain fed**
 - **Irrigated**
- **Energy**
 - **Hot, cold (air conditioning/heat)**
 - **Hydropower**
- **Water**
 - **Stream flow**
 - **Scarcity**
- **Public health**
- **Public safety**
- **Manufacturing**
- **Trade and Aid**

Venezuela's deadly flood and mudslides 1999



www.media.pearson.com.au/schools/cw/au_sch_stacey_atlas_5/cs/004/case.html

Pakistan flood 2010



http://www.thestar.com/news/world/2010/08/10/outrage_at_absent_leader_swells_amid_pakistan_flood_disaster.html

Case Study SWOC Analysis

Strengths

-
-
-
-

Weaknesses

-
-
-
-

Opportunities

-
-
-
-

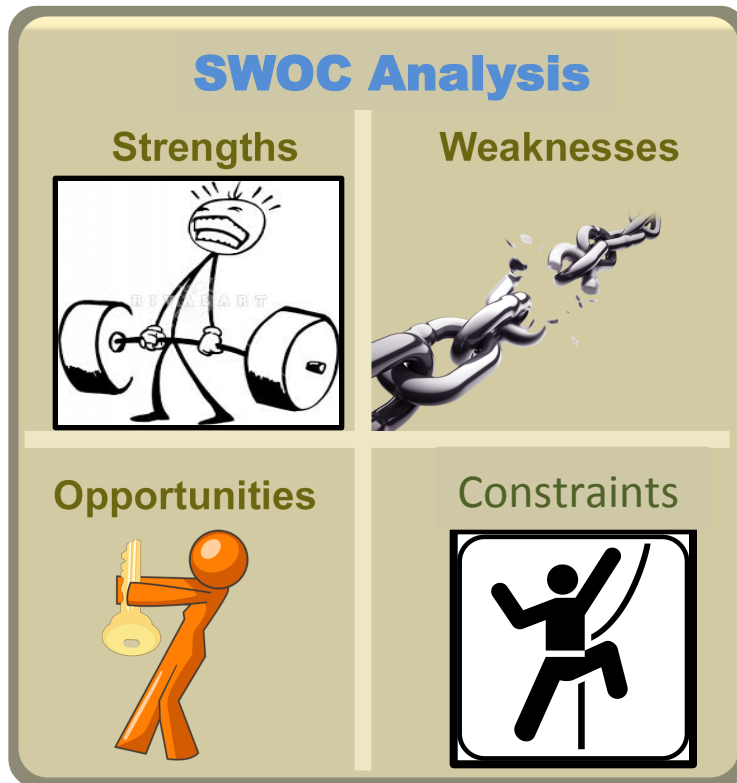
Challenges

-
-
-
-

Breakout Session: Case Study SWOC

Notes

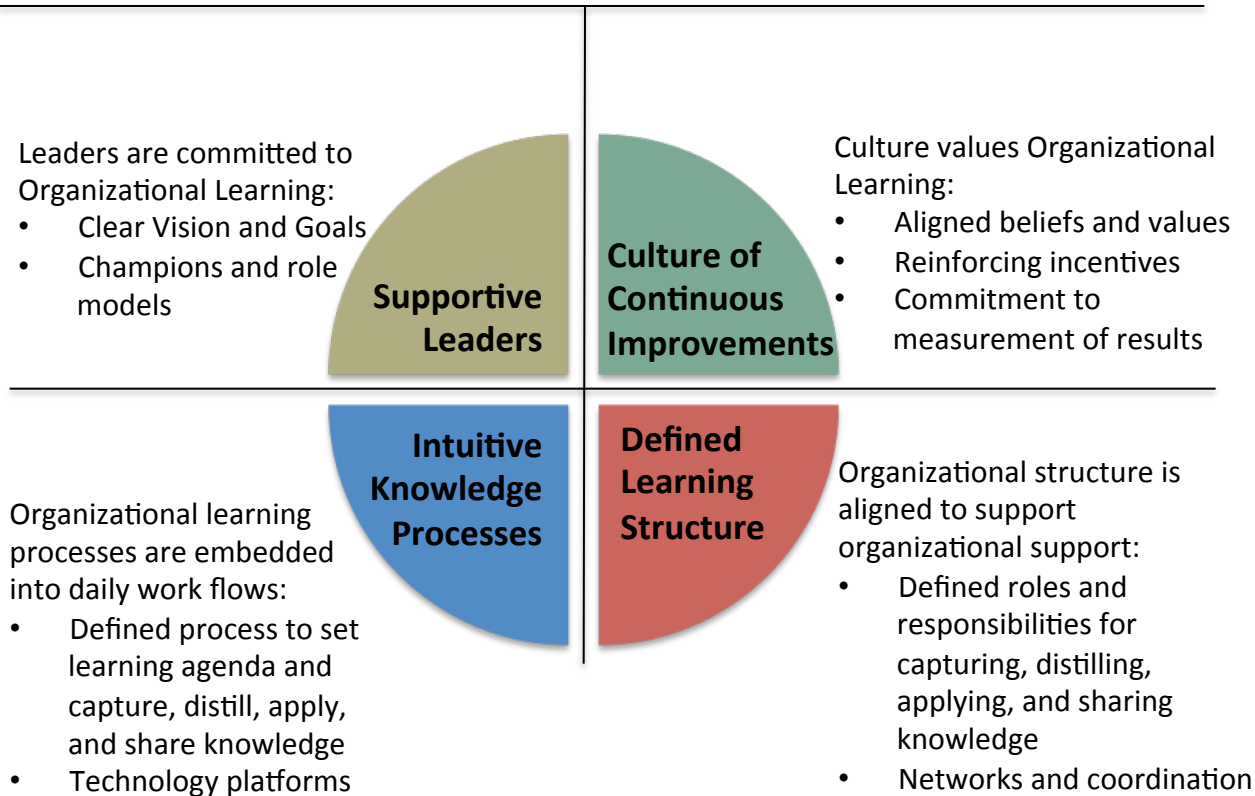
At Issue: A usable understanding of the pro and con of relying on case studies for DRR planning



Adapted from: <http://aspire4business.com/appling-swot-analysis-to-your-small-business-part-i/>

7th & 8th Session, Tuesday
3:30-5:00pm

Four Elements of Organizational Learning



DAY 2

1ST Session, Wednesday

8:30am-9:15am

Lesson Learning processes in organizations and networks.

At Issue: Can institutions learn?

What is needed for
Organizational Learning?



Adapted from: www.slideshare.net

**“Organizations do not learn,
individuals do.”**

- Elliot Berg (2000)

1ST Session, Wednesday

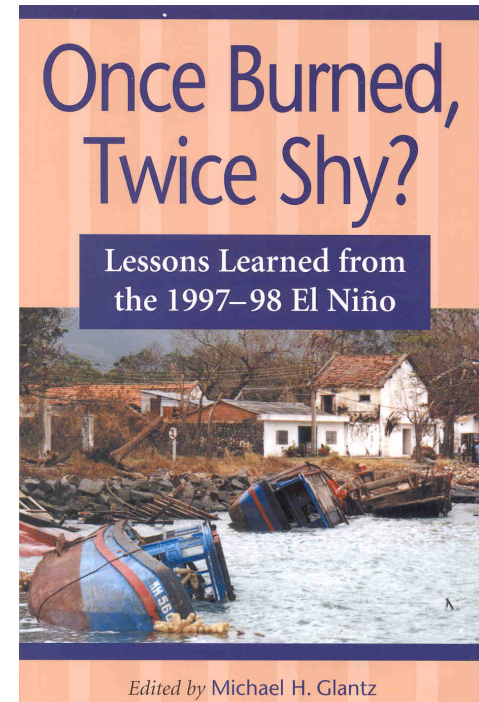
8:30am-9:15am

Notes _____

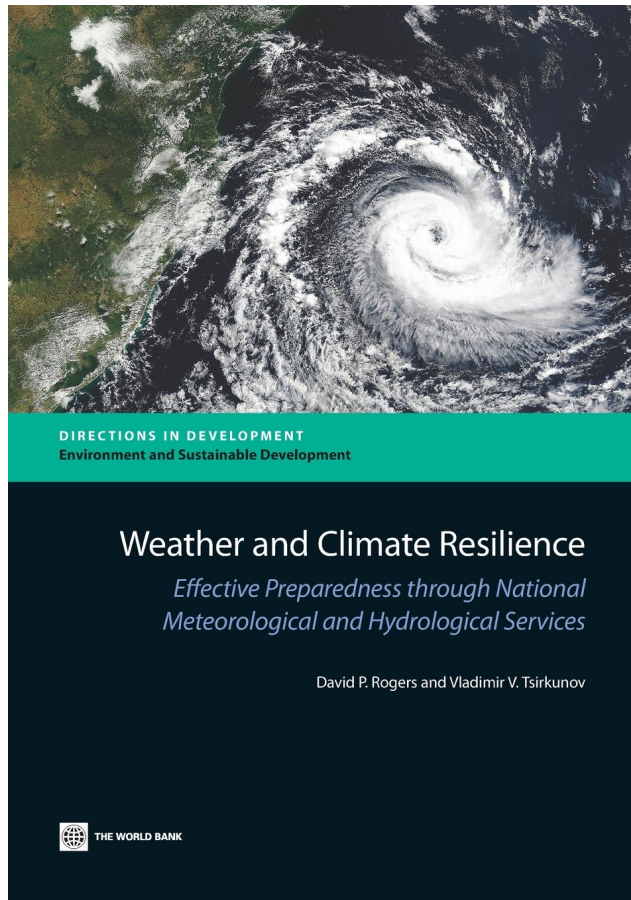
A “Lessons Learning” Problem

- So-called Lessons are identified after each disaster
 - Are they really learned?
- Why are some lessons identified applied, and others not?
- “Why do we still find change so difficult both as organizations and as individuals?” HBR (Winter 2014)

**Is the phrase
“lessons learned”
part of the problem?**



Analysis of Lessons Learned during World Bank-funded hydro-met projects

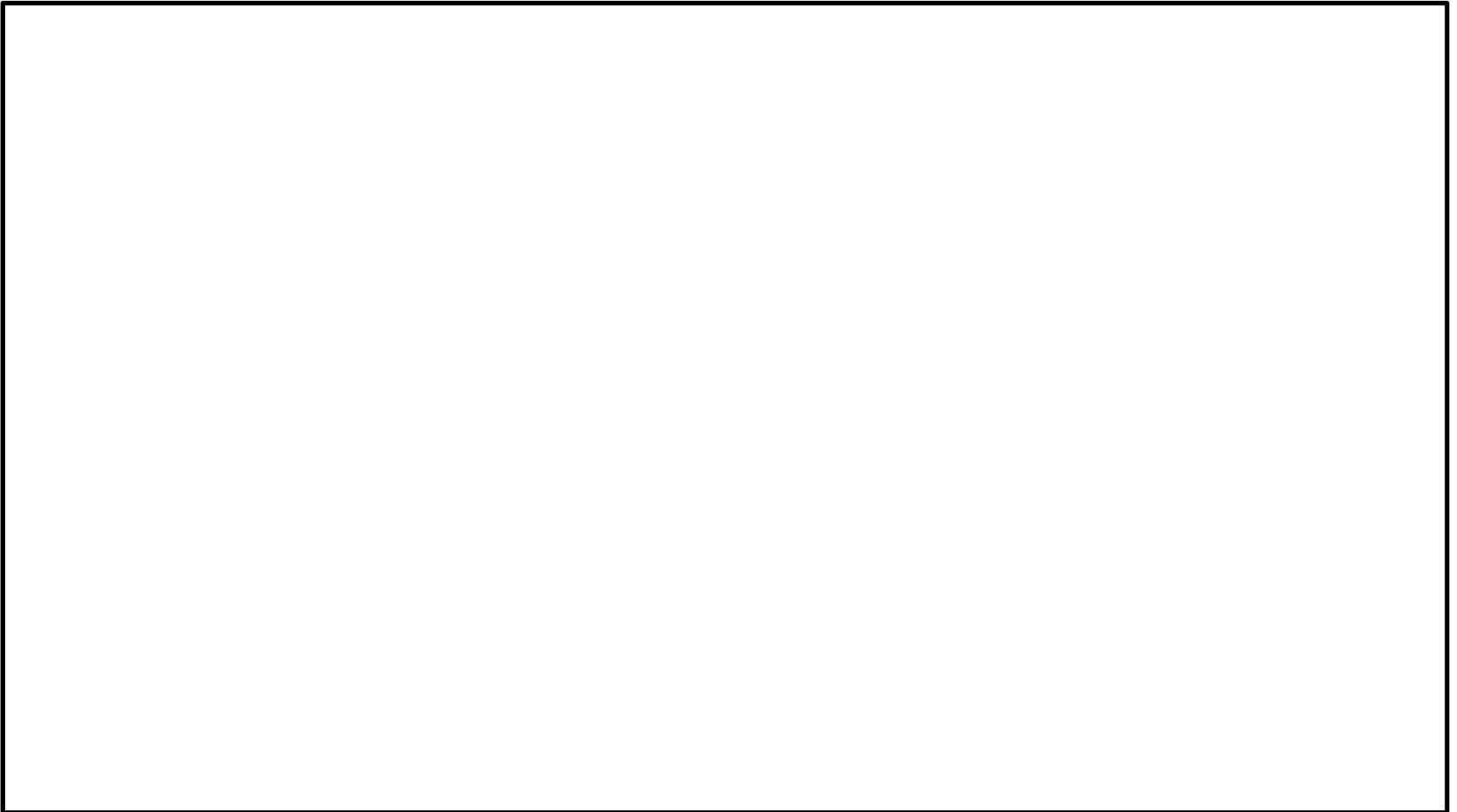


**At Issue: Awareness-raising of the Lessons
Identified/Lessons Learned in an
organizational context**

Notes

2nd Session, Wednesday
9:15am-10:30am

Discussion Notes for Donor-led Roundtable

A large, empty rectangular box with a black border, intended for taking notes during a donor-led roundtable discussion.

Donor-led Roundtable

“Lessons in Lending”

Discussion on how to scale-up and coordinate support to hydro-met activities



<http://fourc.ca/meeting-of-the-minds/>

When to Identify Lessons:

Introduction to 3 phases of the Culture of “Learning in Lending”

Learning into Lending

(Bring knowledge into the Project Design)

Learning while Lending

(Gaining and using knowledge in modification and implementation of an ongoing project e.g. mid-course correction)

Learning from Lending

Transmitting or feeding back lessons from project to other projects or follow-on projects

Source: IEG/World Bank Group, Learning and Results in World Bank Operations: How the Bank Learns. (July 2014, p. 20)

At Issue: Identifying ways and means to reduce knowledge discontinuities in hydro-met modernization activities

3rd Session, Wednesday
11:00am-11:45am

Global Networking of NGOs for DRR

“A comprehensive approach to DRR requires a combination of changes in practices and behaviours at the local level, with changes to national and international policies. Furthermore, a 'DRR movement' cannot be built without the active participation of NGOs and the civil society at large.” (UNISDR)

Notes



International Strategy for Disaster Reduction



Building a
Global Network of NGOs
for Community Resilience
to Disasters



United Nations

NGOs and DRR: **Lessons Identified and Lessons Learned**

Notes

At Issue: NGOs and other grassroots activities establish a way that local DRR-related ideas can “bubble up” to national and donor decision makers. One way is to establish a “Community-Based DRR Idea Bank.”



<http://depositphotos.com/vector-images/creative.html>

4th Session, Wednesday
11:45am-12:30pm

Social Media Networks and DRR

At Issue: Pro and Con of using social media networks for improving efficiency and effectiveness of DRR in changing physical and technological climates.

Notes



<http://i.ytimg.com/vi/y-j7F3gd9M0/maxresdefault.jpg>

Next Generation and DRR:
Youth and young professionals

Social Media networks and DRR

**The NEXT
GENERATION
IS ALREADY HERE !!**

At Issue: The enhancement of the value of DRR activities by integrating the enrollment of the next generation of discussion makers, youth and young professionals.

What is Disaster Management?

Preparedness -- activities prior to a disaster.

Examples: preparedness plans; emergency exercises/training; warning systems.

Response -- activities during a disaster.

Examples: public warning systems; emergency operations; search and rescue.

Recovery -- activities following a disaster.

Examples: temporary housing; claims processing and grants; long-term medical care and counseling.

Mitigation - activities that reduce the effects of disasters.

Examples: building codes and zoning; vulnerability analyses; public education.



Source: Information and Communication Technology in Disaster Risk Management - presentation prepared by Sujit Mohanty, Manager-Disaster Information Systems, GOI-UNDP Programme, Ministry of Home Affairs, GOI, 2005

Breakout Session

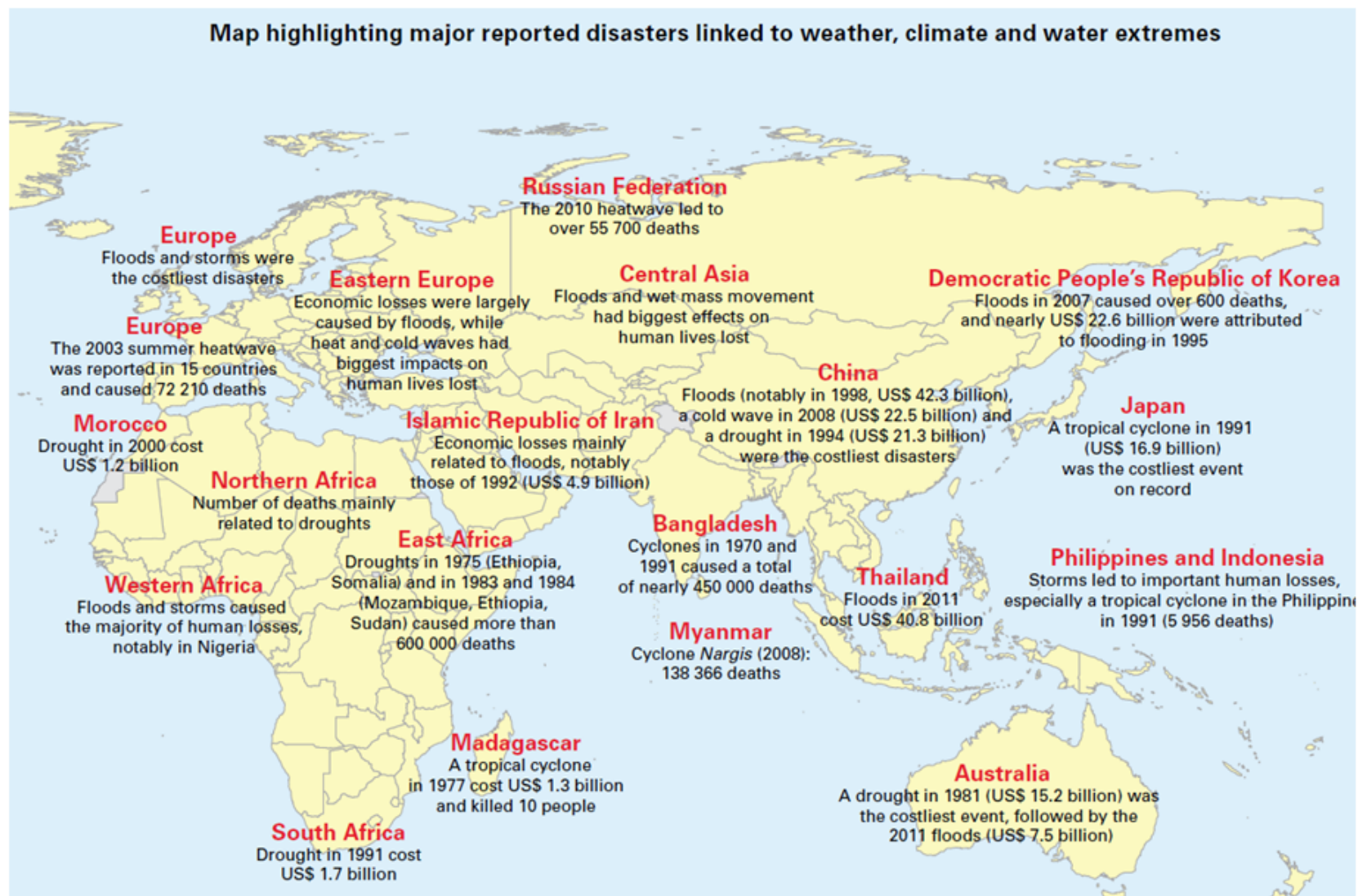
How do DRR organizations “manage” the knowledge process?

At Issue: Effectiveness of organizational management to accumulate, use and share previously identified lessons

- **Break into groups by kind of organization. Each group will discuss what works and doesn't work in knowledge management where they work**
- **After discussion, return and share with the entire group**

WMO 2014 ATLAS OF MORTALITY AND ECONOMIC LOSSES FROM WEATHER, CLIMATE AND WATER EXTREMES (1970–2012)

Map highlighting major reported disasters linked to weather, climate and water extremes



Wednesday Evening **(Voluntary Session)**

Likeminded disciplinary breakout groups: DRR Idea Sharing

At Issue: Disaster and DRR Lessons-Sharing among participants



**“If speaking is silver,
than listening is gold.”**

-Turkish Proverb

Wednesday Evening
7:30pm – 9:30pm

A Changing Climate and DRR?

2001-2010 as the warmest decade on record

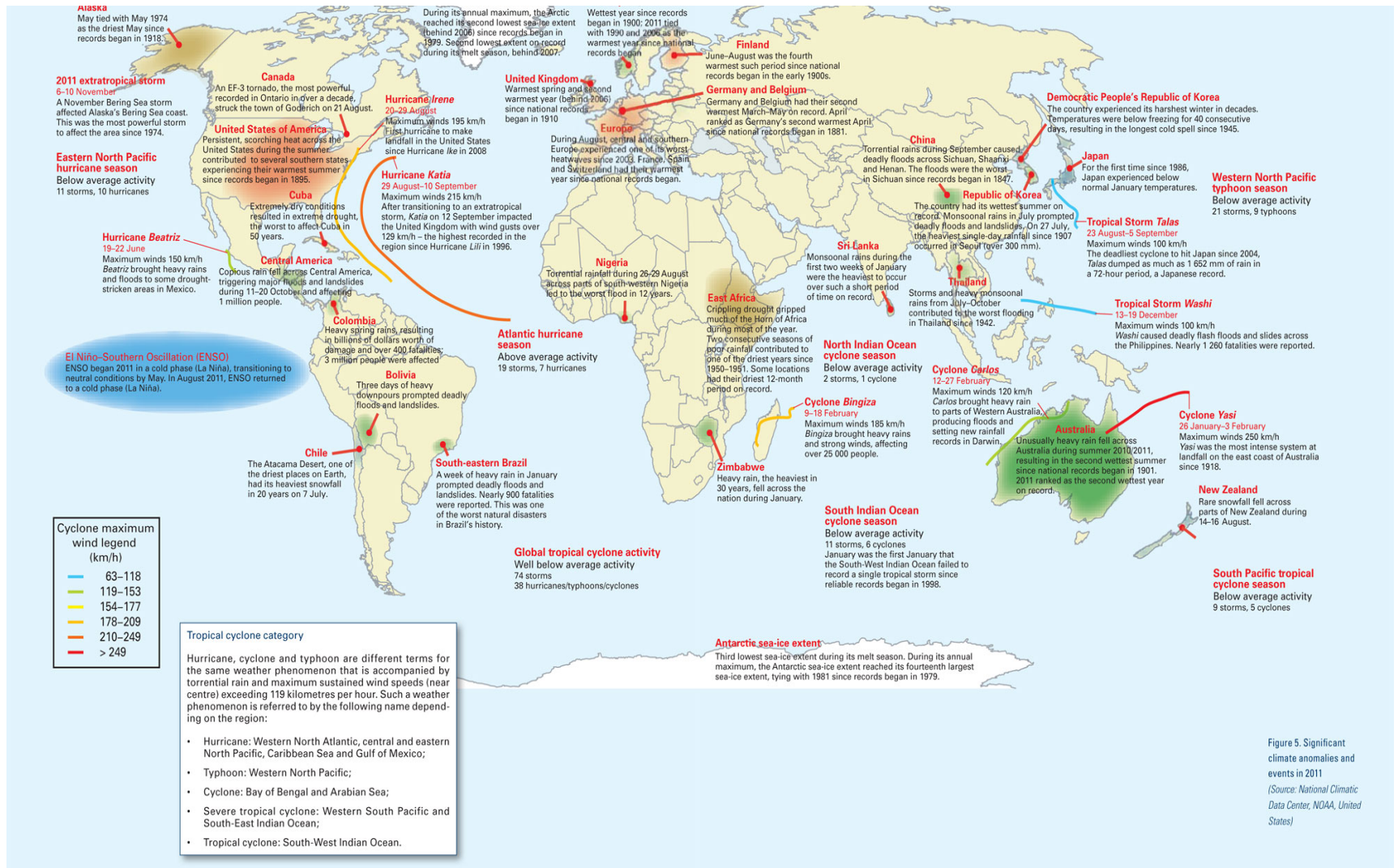
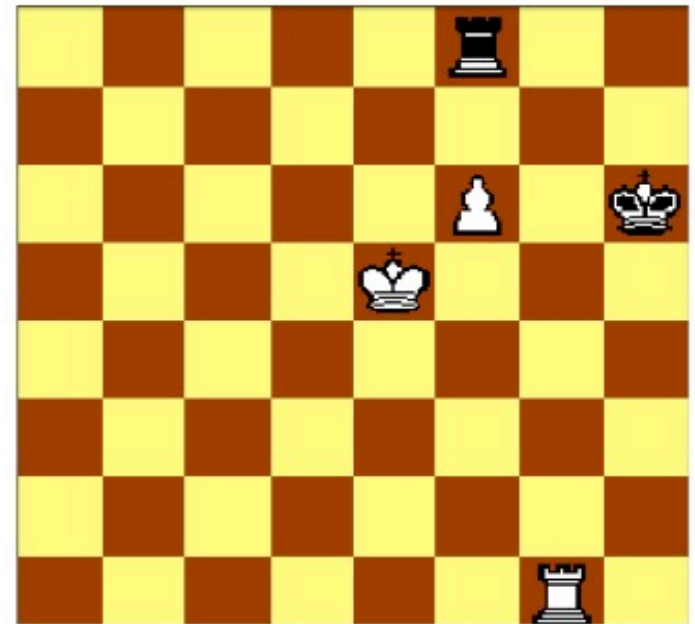


Figure 5. Significant climate anomalies and events in 2011
(Source: National Climatic Data Center, NOAA, United States)

“No place to hide”... from hydro-meteorological risks



White to Move

Linking or Sinking: Blending DRR and CCA

- Are bureaucracies of the previous centuries not designed to cope with complex 21st century problems in an holistic way?
- Can we make the whole greater than the sum of the parts by linking DRR an CCA without losing their strengths?
 - For DRR: Build back better but different
 - For CCA: make longer-term development relevant to today's civil society's concerns
- What are the positive & adverse effects of CCA or DRR "mission creep"? (definition: the tendency for a task, especially a military operation, to become unintentionally wider in scope than its initial objectives)

Day 3

1st Session, Thursday

9:00am-9:45am

Comparing the consequences of Bridging, Integrating or Blending DRR and CCA

**At Issue: Identifying, Testing and Enhancing opportunities
for effective linking of DRR & CCA.**



Poet of the Sea
-Winslow Homer

DRR and CCA: Linking or sinking?

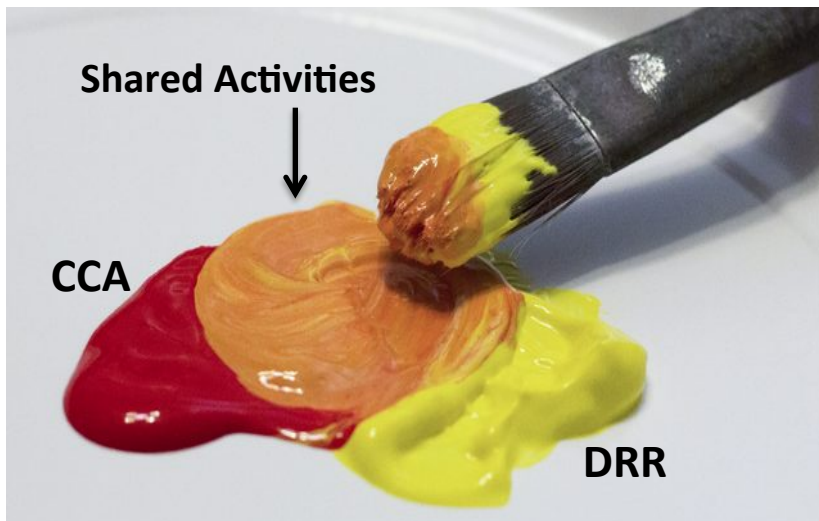
1st Session, Thursday
9:00am-9:45am

When should 'red' and 'yellow' cooperate?



Adapted from: <http://mamapapabubba.com/page/3/>

When a new color is needed --- orange!

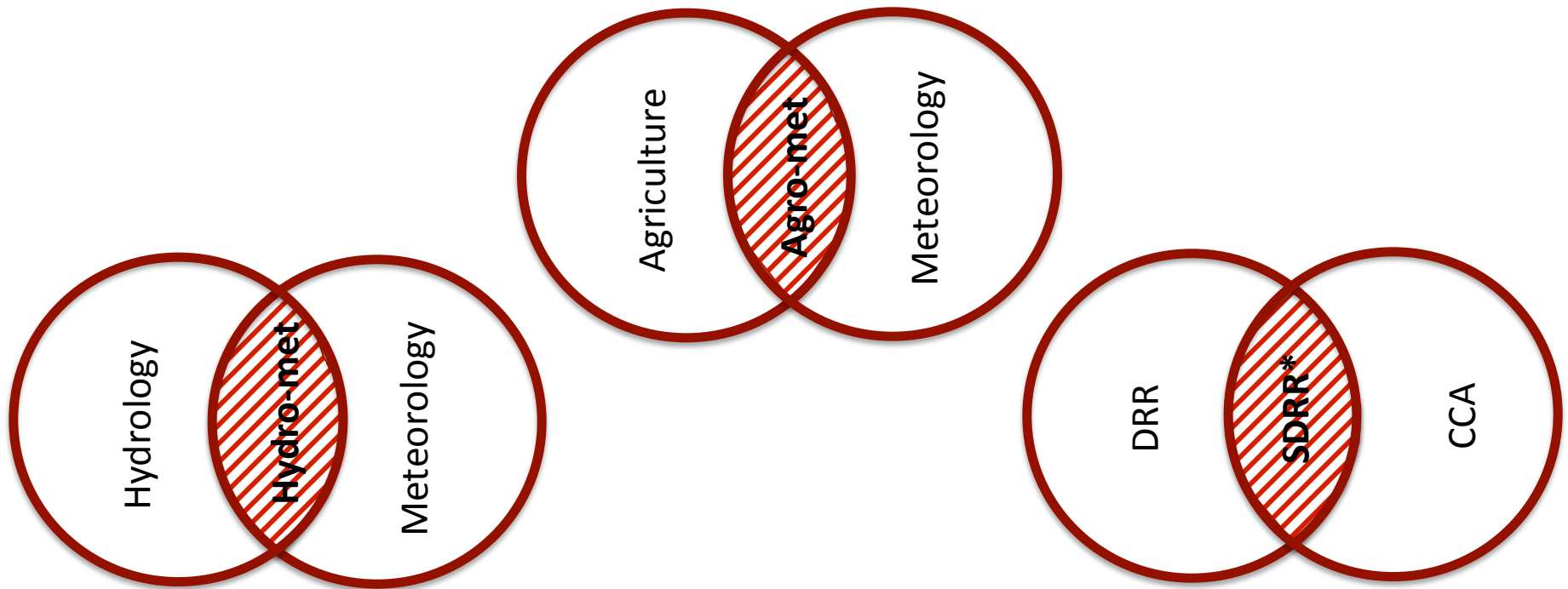


Adapted from: www.ehow.com/how_5575583_make-color-black-paint.html

Notes

Do disaster preparedness and disaster recovery provide an linkage between DRR and CCA

At issue: How to fast track blending of DRR and CCA activities



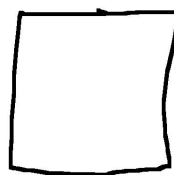
2nd Session, Thursday

9:45am-10:30am

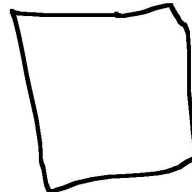
*SDRR (Sustainable Disaster Risk Reduction)

The *Pilot* Project

PROS	CONS



Go?

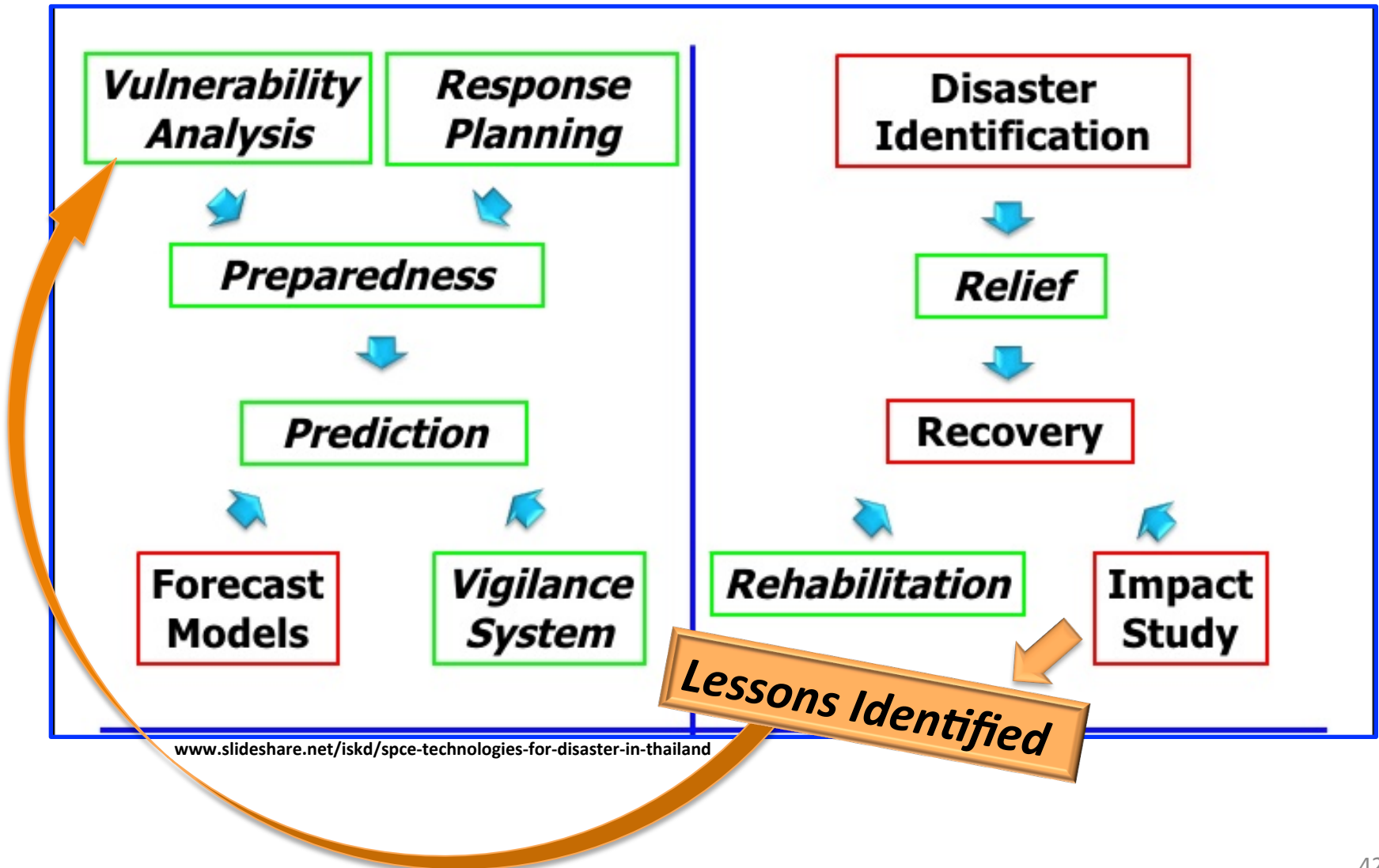


No Go?

DRR Pilot Projects: Pros and Cons

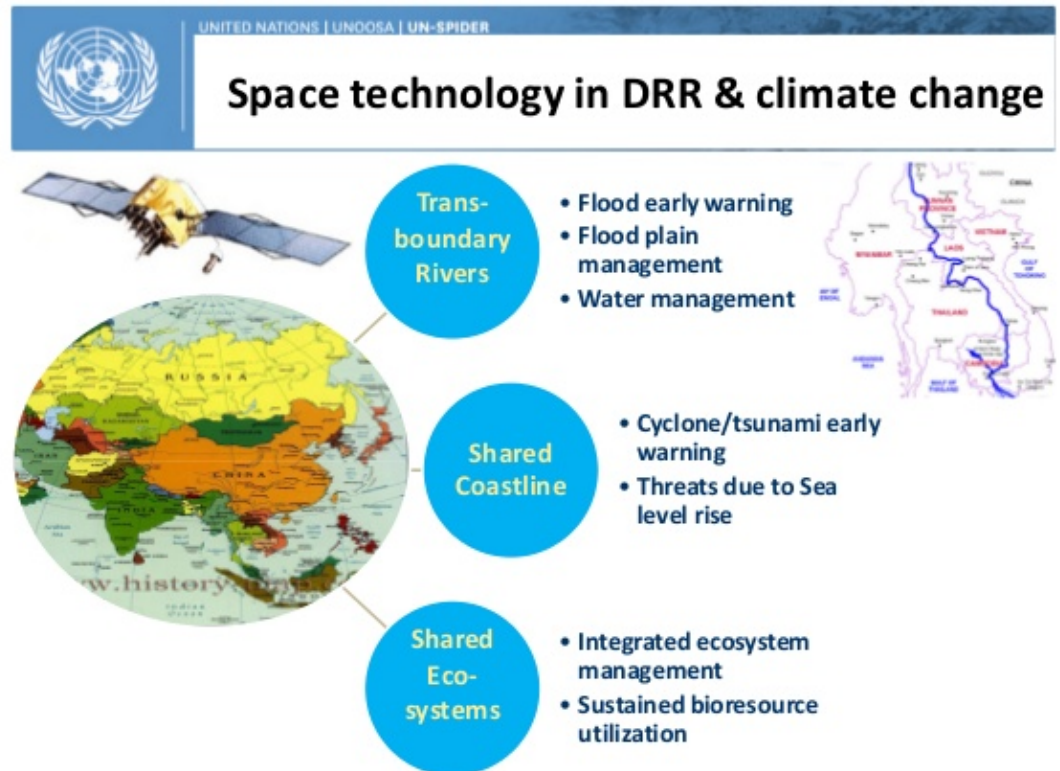
At Issue: Identifying the value of Pilot Projects: Whether, When and How to use pilot projects for DRR

Technology and DRR



Technology and DRR

At Issue: Enhancing the value of technological solutions to DRR by addressing societal considerations.

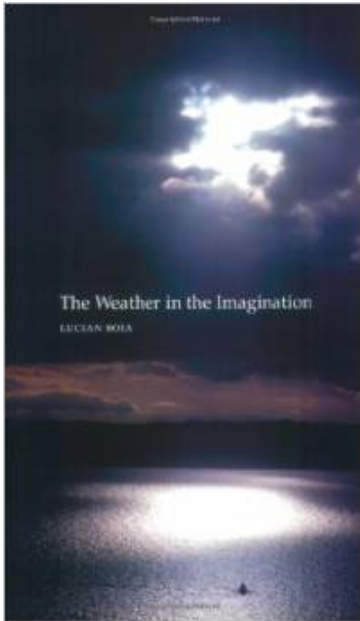


“Weather in the Imagination”

“Man believed he could dominate Nature and bend it to his will, but Nature is now turning against him and he finds himself caught in a trap.”

“Nor does technological man - at least now or in the foreseeable future - seem capable of freeing himself from the constraints of the natural world and inventing a completely ‘artificial’ civilization.”

**- Lucian Boia
Romanian historian (2005)**



Changing role of science

Science and Society

- Before the 1970s:

“Science for Science”



<http://www.gettyimages.com/detail/photo/silhouette-of-man-holding-measuring-beaker-royalty-free-image/sb10068346ce-001>

In 1970s:

“Science for the People”



www.auroralevinismorales.com/main-blog/the-science-of-solidarity

After 2000:

“Science with the People”



Uppsala Universitet: Field Season 1999 Sharing Science with the People (called stakeholders)





Examples of Effective Early Warning Systems



Bangladesh Cyclone Preparedness Programme



Cuba Tropical Cyclone Early Warning System

France Vigilance System



Shanghai City: Multi-Hazard Early Warning and Emergency Response Programme



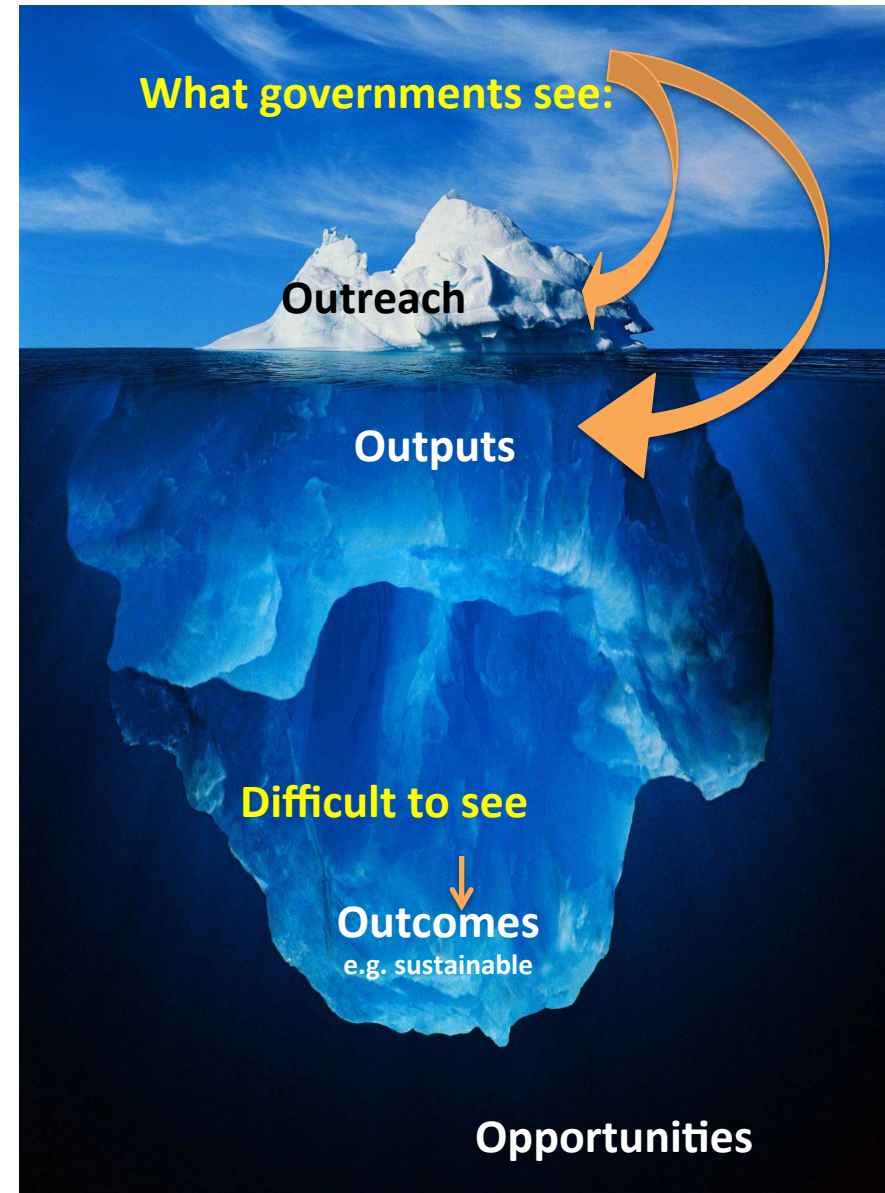
www.slideshare.net/UNISDR/wmo-disaster-risk-reduction-programme

Breakout Session
Early Warning Systems
and DRR:
Where the technical
meets the social

**At Issue: The EWS is only as
good as its weakest link.**
Lessons Learned about
Lessons Learned about EWS
for DRR.

3 “O’s” + 1

- The 3 “O’s” + 1
 - Outreach
 - Outputs
 - Outcomes
(e.g. sustainable)
 - +1 = Opportunities
- Enhance the process toward achieving stated goals
- Enhance capacity building, self-sufficiency



http://hdwyn.com/glacier_iceberg_under_water_hd-wallpaper-14494/

Evaluation of DRR

At Issue:

- What is the role of DRR project Evaluation in the lessons learning process?
- To whom does it matter that the DRR activity is “successful”?
- How to best measure success of a project or program: optimize or satisfice?
- How can objective, transparent evaluation help to improve DRR effectiveness?



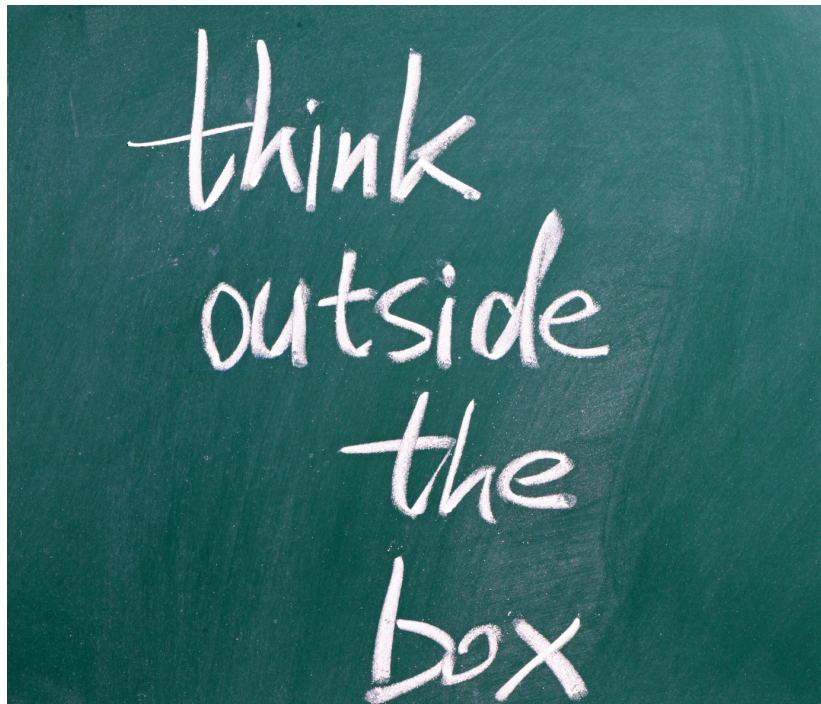
www.rminsight.co.uk/about-us.html

Aspects of Evaluation

Day 4

Breakout Session

Mixed Groups: The Way Forward



OR ...



?

Day 4

**1st Session, Friday
9:00am-10:00am**

Next Steps

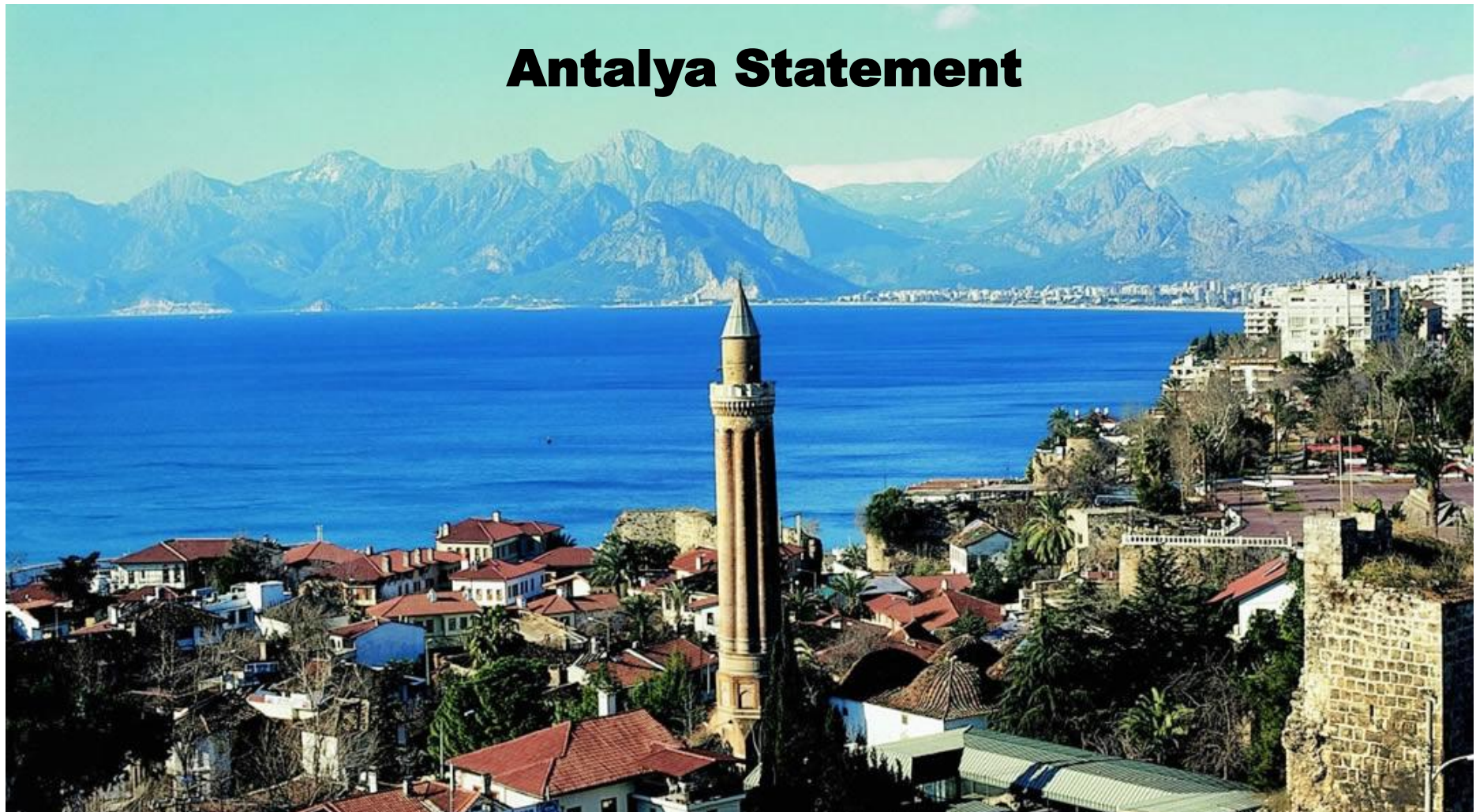
Introducing the Antalya Statement

Breakout Session

Mixed groups will work toward the Statement

**At Issue: Each group will be asked to identify 5 actions
for the Antalya Statement**

Antalya Statement



Presentation of breakout items to the plenary

“Antalya Statement”

At Issue: To produce a consensus statement that expresses the breakout groups' agreement about 5 recommendation statements and accompanying 5 ramification statements in the event the recommendations are not pursued

Drafting the *Antalya Statement*

At Issue: Discussion and selection of the 5 action items for the Antalya Statement

Action Items

1.

2.

3.

4.

5.

Ramification Statements

1.

2.

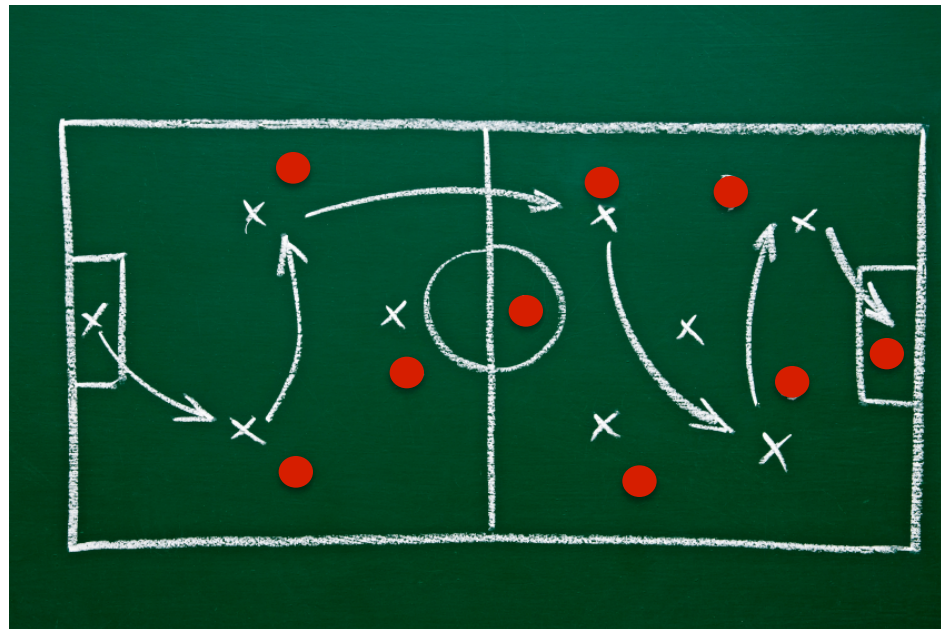
3.

4.

5.

Develop a Plan of Action (next steps) based on the Antalya Statement

5 recommendations with associated ramification statements



Adapted from: <http://www.knd.com.au/wp-content/uploads/strategy-field.jpg>

Crosscutting lessons identified in our DRR Lessons Learned OFDA Survey* (April, 2014)

EWSs	Education & Training	Reality
<p><u>E-2-E (-2-E)</u> Make explicit the feedback loop (E) from stakeholders: Add a third "E" to an End-2-End EWS Dissemination An EWS must reach risk takers as well as the risk averse. Improve warnings' reach to remote communities? <u>Communication</u> Face2face? Language? Electronically? <u>Foreseeability</u> Use qualitative & anecdotal info not just model output & probabilities. <u>Forecast By Analogy</u> Review lessons from other times, places and events <u>Effectiveness</u> What are measures of effectiveness of EWs or EWSs? <u>Efficiency</u> Timeliness depends on sector or development level <u>Hotspots pyramid</u> It is useful for EWs related to land-use change progression <u>Transparency</u> Involve the beneficiaries/stakeholders in the process of making and issuing of EWs</p>	<p><u>Capacity Building</u> Must consider absorptive as well as adaptive capacity. Must think about incentives to avoid a "brain drain" <u>Re-education</u> "Once is not enough." Need follow-up refresher workshops <u>Awareness raising</u> Civil society can learn the basics about their regional and local hydro-met hazards and DRR in face of 'changing climate' <u>Local, ordinary knowledge</u> The more people know, however acquired, the more questions they will be able to resolve. Local ordinary knowledge is useful to build an effective, inclusive EWS <u>Improvisation</u> Teach people in high risk areas to improvise, eg, the "MacGuyver Effect"</p>	<p><u>What is/ What ought to be</u> This can help to separate real life from rhetoric. <u>Stretch goal</u> Identify a goal to strive for that is known to be just out of reach <u>"Climate proof- not"</u> Climate proofing is not possible but working toward it is. <u>Donor budget constraints</u> Foster eventual project ownership by recipients <u>"Satisficing"</u> "Good enough" results can prove to be good enough for DRR and CCA assistance <u>CEPs</u> See EWS hotspots pyramid <u>Technological vs. Social Solution</u> Minimize over-dependence on tech solutions. And if one argues that science is the answer, one <u>must</u> ask, "But...what was the question"? <u>Funding</u> DRR demands will outstrip funding <u>Risk making</u> Some decisions create risk <u>Conflicts of interest</u> Bureaucratic, political, economic, cultural, demographic, visions about the future, and so forth</p>

*Not independent or mutually exclusive categories & can be put in more than one category, eg education and training cut across the columns

M.H. Glantz & M-A Baudoin 2014

Management Process	Cooperation & Understanding	Institutional Vision	Funding
<p><u>CCRB (Climate change risk & benefits disclosure)</u></p> <p>Identify climate change risks & benefits in advance</p> <p>Re-function</p> <p>Development community's apparent shift to resilience begs a review of goals of aid bureaucracies</p> <p>Monitoring</p> <p>Necessary from project onset, as is mid-course review</p> <p>Documenting</p> <p>Have a project scribe record lessons at the project's onset</p> <p>Evaluating Pilot vs Long-term</p> <p>Donor & client must be aware of pro and con of pilot projects. Disaster Risk Management</p> <p>DRM includes DRR and CCA. Transparency</p> <p>Having a scribe and external monitor can identify problems. Conflicting priorities</p> <p>"The one with the gold (donors) should not make the rules" without input from recipients.</p>	<p><u>Multidisciplinary</u></p> <p>Among disciplines</p> <p>Multisectoral</p> <p>Among sectors</p> <p>Multinational</p> <p>Among countries and between them by common concerns and analogues</p> <p>Regional</p> <p>Difficult among neighbors because of regional conflicting interests and because of regional differences among capacities (financial, material, skills)</p> <p>Cooperation between regional and sub-national organizations</p> <p>Locals know more about local issues and factors that can affect outcomes for DRR. Listen to them and respect their ordinary knowledge</p> <p>Partnership vs Ownership</p> <p>Make obligations by both sides clear at the project's onset</p> <p>Lack of donor coordination</p> <p>Make it effective</p> <p>Conflicting priorities</p> <p>Often top-down vs bottom up approach issue</p>	<p><u>Bridge DRR/CCA?</u></p> <p>We vote for "BLENDING"</p> <p>Clearly defined targets</p> <p>1st and 2nd order targets</p> <p>Whose priority rules?</p> <p>Among donors, governments, ministries, at risk people?</p> <p>Reversing triage</p> <p>Help the worst-off most at risk first not last</p> <p>Resilient Adaptation</p> <p>A flexible approach to an uncertain climate future for DRR and for CCA as new scientific information becomes available.</p> <p>Social Inventions</p> <p>Like tech solutions, ideas can change climate change attitudes and behavior</p> <p>DRR Idea Bank</p> <p>Collect victims' (ZORs, zero-order responders) responses to disaster taken before 1st responders arrive. Mitigate (i.e. lessen) DRR/CCA impacts</p> <p>Identify the 2nd order downstream impacts of any proposed adaptation.</p> <p>DRR RANN (Research Applied to National Needs)</p> <p>Devise focused research</p> <p>Work with change</p> <p>Change is constant as are societal adjustments to change.</p> <p>Mainstream DRR-CCA</p> <p>Get the blended aspects of DRR-CCA into decision processes</p> <p>Satisficing</p> <p>"What could be": do not let "the perfect become the enemy of the good."</p>	<p><u>Lack of donor coordination</u></p> <p>Would enhanced effective donor coordination reduce the costs of collective DRR activities?</p> <p>Pilot vs Long-term</p> <p>If a pilot project proves successful, Does the donor have obligation to continue it through a second phase before sun-setting their funding for it?</p> <p>Donor budget constraints</p> <p>In this era of global financial stress, humanitarian budgets are likely not to increase in a time when more hydro-met extremes are expected to occur?</p> <p>Satisficing</p> <p>Good enough as opposed to perfect must be a consideration for DRR projects.</p> <p>Funding efficiency</p> <p>Should "value for money" for DRR be a relevant criterion for assistance to at-risk populations?</p> <p>Hotspots pyramid</p> <p>The longer you wait to address potential hydro-met hazards, the more costly it will be in the future when a disaster does occur.</p>

CLOSING SESSION

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A Way Forward



<http://businessconcerto.com/tag/social-media/>



Mark participants' locations

Expert Forum 2015 Agenda

Tuesday	Wednesday	Thursday	Friday
7:30-8:45am Registration	9:00-9:45am Lesson Learning Processes in Organizations and Networks	9:00-9:45am Comparing the consequences of “Bridging, Integrating or Blending DRR and CCA”	9:00-9:45am <u>Breakout Session</u> Mixed Groups: The Way Forward
9:00-9:45am Forum Introduction	9:45-10:30am Analysis of Lessons World Bank teams identified/learned	9:45-10:30am Do disaster preparedness & disaster recovery provide a linkage between DRR & CCA?	9:45-10:30am Presentation of breakout action items for the next session
Break 10:30-11:00	Break 10:30-11:00	Break 10:30-11:00	Break 10:30-11:00
11:00-11:45am The Global Setting of DRR & CCA	11:00-11:45am Donor-led Roundtable: “Learning in Lending”	11:00-11:45am DRR Pilot Projects: Pros and Cons	11:00-11:45am The “Antalya Statement” discussion
11:45-12:30pm About Lessons	11:45-12:30pm NGOs and DRR Lessons Identified & Lessons Learned	11:45-12:30pm Technology and DRR	11:45-12:30pm Develop a Plan of Action for Next Steps
Lunch 12:30-1:30pm	Lunch 12:30-1:30pm	Lunch 12:30-1:30pm	Lunch 12:30-1:30pm
1:45-2:30pm Where lessons come from: Case Studies	1:45-3:15pm Next Generation and DRR	1:45-3:15pm <u>Breakout Session</u> Early Warning Systems and DRR: Where the technical meets the social	1:45-2:30pm Closing Session: The Way Forward:
2:30-3:15pm El Niño & Teleconnections: Case Study Lessons			
Break 3:15-3:30pm	Break 3:15-3:30pm	Break 3:15-3:30pm	
3:30-5:00pm <u>Breakout Session</u> Case Study SWOC	3:30-5:00pm <u>Breakout Session</u> How do DRR organizations “manage” the knowledge process?	3:30-5:00pm Evaluation of DRR & CCA	
	<u>Wednesday Evening</u> 7:30pm – 9:30pm Voluntary (Like-minded research and operational groups: Idea sharing)		