GADRI
Global Alliance of
Disaster Research Institutes

GADRI ACTIONS

Summer 2020
Volume 12— Number 1

Under the current prevailing circumstances, we hope you are coping well and staying safe.

Most of the activities planned for this year and next year are put on hold or will be arranged virtually. One of such event that is postponed and held virtually is the 5th GADRI Global Summit which was planned to be hosted by the European Commission Joint Research Institute in Milan, Italy in March 2021. We are planning to host the 5th GADRI Global Summit virtually in August 2021. We will share further details in the next issue of the newsletter.

In this issue, we are covering two online lectures delivered by two members of GADRI; GADRI statement of Covid-19 and its review by Prof. David Alexander, and other articles that may be of interest to you.

Should you wish to share any information with the GADRI community, please do not hesitate to contact the GADRI Secretariat and we will disseminate the information through GADRI website and the newsletter.

We hope you will take care of yourself and stay safe.

With best wishes,

Hirokazu Tatano and Wilma James

Professor Hirokazu Tatano received the Sir Richard Stone Prize of the International Input-Output Association

Professor Hirokazu Tatano, DPRI, Kyoto University and Prof. Yoshio Kajitani, Kagawa University received the Sir Richard Stone Prize from the International Input-Output Association, Austria for their paper on Applicability of a Spatial Computable General Equilibrium Model to Assess the Short-Term Economic Impact of Natural Disasters, Economic Systems Research, 30(3), pp.289-312, 2018, Kajitani, Y. and Tatano, H.– in August 2020.

Sir Richard Stone Prize is awarded every other year for the best paper(s) that was submitted and accepted for publication in IIOA's journal Economic Systems Research in the two consecutive volumes. The prize is donated by Francis & Taylor, the Publisher of the journal.

GADRI Lecture Series

Lectures by the following members of GADRI are now available via GADRI homepage.

- Prof. Gretchen Kalonji, Dean of Sichuan University-Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR), China
- Prof. Andrew Collins, Leader, Disaster and Development Network, Northumbria University Newcastle, United Kingdom
- Prof. John Clammer, O. P. Jindal Global University, India

Contents

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GADRI Actions is designed, formatted and edited by Hirokazu Tatano and Wilma James.

GADRI LECTURE SERIES

Building Back Better: A Holistic Approach to Post-Disaster Recovery

By Prof. John Clammer, O. P. Jindal Global University, India

Prof. John Clammer, O. P. Jindal Global University, India

John Clammer is Professor of Sociology at the O.P. Jindal Global University, Sonepat, Delhi NCR, India, where he teaches in the schools of Liberal Arts, Law and Environmental Studies. He is currently Distinguished Visiting Professor at Kyoto University and has been teaching in the Institute of Liberal Arts and Sciences, and researching in conjunction with the DPRI. He was formerly professor of development sociology at the Institute for Advanced Studies in Sustainability at the United Nations University, and has taught and researched at Sophia University, Tokyo, the National University of Singapore, the Bauhaus Universitat Weimar, and universities in South Korea, India, Argentina, the UK and Australia. Among his most recent publications are the books "Cultures of Transition and Sustainability"(2016) and "Cultural Rights and Justice: Sustainable Development, the Arts and the Body" (2019), both published in New York and London by Palgrave Macmillan.

⇒**Brief-Bio of Speaker:** http://jslh.edu.in/john-robert-clammer/

Lecture title: Building Back Better: A Holistic Approach to Post-Disaster Recovery

Abstract: The notion of "Build Back Better" is now a familiar idea in post-disaster reconstruction. The presentation examined this idea and sought to expand it in a number of fresh directions. These included the role of architects in post-disaster reconstruction; sociological approaches to recovery including evidence from community studies, network analysis of local social structures, and demography; cultural reconstruction and experiences of owner driven reconstruction and heritage management; and the social psychology of recovery. The seminar also drew on the presenter's work in trauma studies and parallels between natural disaster recovery and post-conflict situations. It pointed to policy recommendations that can be drawn from such an approach and hopefully applied to a range of post-disaster situations, and suggested innovations in education for disaster recovery for students of "disasterology", architects and victims, whose healing and recovery process can be deepened and accelerated by sensitive and holistic understanding of the full range of the meaning of 'building back better".

The concept of 'building back better" is well known. This lecture was designed to broaden the idea by incorporating a number of elements that are not always stressed. Many post-disaster situations have not involved architects in the design of new housing and other structures, but the evidence is that good and sustainable design, often beyond the capacities of NGOs and government appointed contractors, results in buildings that are enjoyed by the users, are well-maintained and provide psychological satisfaction. This is only true however when local cultures, social structure and gender norms are also taken into primary account in the design process. The lecture illustrated this with reference to a number of case studies, and also drew attention to a number of other key factors, including the rebuilding and/or reimagining of the local economy (and relating rebuilding to these needs), local demography, and the well-known significance of involving the community in all stage of planning, design and execution. At the same time the lecture drew attention to the tendency to romanticize the idea of "community" and to not pay sufficient attention to social hierarchies, inequalities and local power structures. While stressing the importance of design for sustainability (including drawing on vernacular architecture and architects), thee lecture also drew parallels between post-disaster and post-conflict situations, and suggested that the field of trauma studies is potentially very important in understanding the psychology of post-disaster recovery. In conclusion, the lecture suggested policy implications, including the importance of holism (involving architects, anthropologists, ecologists, engineers, geologists and others) in post-disaster planning) and the desirability of including disaster prevention and reconstruction in the educational curriculum, especially in schools of architecture and urban planning.

GADRI LECTURE SERIES

Artificial Intelligence Based Systems and Satellite Imagery in Disaster Risk Reduction (DRR)

By: Dr. Sudip Roy, IIT, Roorkee, India

Dr. Sudip Roy, Assistant Professor, Department of Computer Science and Engineering of Indian Institute of Technology (IIT) Roorkee, India

Dr. Sudip Roy is currently an Assistant Professor in the Department of Computer Science and Engineering of Indian Institute of Technology（IIT）Roorkee, India. He is also an associated faculty member of the Centre of Excellence in Disaster Mitigation and Management in IIT Roorkee, India. He received his bachelor of science degree in Physics and bachelor of technology degree in Computer Science and Engineering from the University of Calcutta, India, in 2001 and 2004, respectively. In 2009 and 2014, he received the master of science（by research） and PhD degrees in Computer Science and Engineering from IIT Kharagpur, India, respectively. His research interests include electronic design automation, modelling and simulation, optimization techniques, and ICT for disaster management. He has published 19 international peer-reviewed journal papers and 38 international peer-reviewed conference papers. He has authored one book, one book chapter and two granted US patents. He has received many awards and recently being the recipient of the Early Career Research Award from the Department of Science and Technology, Govt. of India in 2017.

Lecture title: Artificial Intelligence Based Systems and Satellite Imagery in Disaster Risk Reduction (DRR)

Abstract:

In recent years, many natural disasters are becoming more dangerous partly due to climate change, and their far-reaching impacts have negatively affected people and wildlife across the world. After a disaster, it is important to prioritize rescue operations, disaster response and coordinate relief efforts. These are to be carried out in a fast and efficient manner since resources are often limited in disaster-affected areas, and it is extremely important to identify the areas of maximum damage. In a post-disaster scenario, government agencies and non-governmental organizations （NGOs） put their efforts to coordinate among themselves for effective and efficient disaster relief supply. Such kind of disaster response activities aim to fulfill humanitarian needs as early as possible. However, in many developing and under-developed countries, most of the existing disaster mapping efforts are manual, which is time-consuming and often leads to erroneous results. Many times, it has been found hard to access the emergency data timely, as these data are generally fragmented and incomplete. Hence, the government agencies and NGOs require turning these data into useful information.

Figure 1. 2013 Haiyan Super Typhoon of Philippines. (a) Pre-disaster satellite image (b) Post-disaster satellite image. (Source: Digitalglobe.com)

There are several disaster data available with us such as satellite data, sensor data, social media data, videos, etc. and with the help of artificial intelligence （AI） based techniques we can manage the activities related to disaster management more effectively to reduce the disaster risk and mitigate it. Moreover, satellite imagery and GIS maps can give emergency and disaster response officials a wealth of information for assessment, analysis and monitoring of natural disasters such as hurricanes, tornadoes and cyclone damage from small to large regions around the globe.

As disaster sites are generally not easily accessible, therefore, the use of satellite imagery has become a valuable source of information for assessing the impact of devastating events. For example, Figure 1 shows the pre- and post-disaster satellite images captured for 2013 Haiyan super typhoon in Philippines.

The use of satellite imagery has become increasingly popular for disaster monitoring and response. Thus, it is essential to develop a satellite integrated robust classification system for surveillance of the disaster-affected areas, which can be used in route mapping for relief supply, fund release, biodiversity planning, damage mapping, and other disaster estimation purposes. For example, Figure 2 presents a post-disaster satellite image of an affected region and a kind of mapping of damage levels on that satellite image (Pink: no damage, Blue: major damage), which may be useful for relief logistics and recovery. In the first part of this talk, we discussed on several applications of AI based systems for effective management of both natural and human-made disasters. There are many different future challenges to explore the capabilities of AI-driven systems in different phases (preparedness, response, prevention/mitigation, and recovery) of the disaster management cycle.

It is required to explore how AI based systems for satellite imagery can be useful for disaster risk reduction (DRR). In order to identify the areas, which have been most severely affected by a disaster, we explored the use of AI based systems for satellite imagery. In the last part of this talk, we discussed about our recent work that was accepted for publication in a reputed international conference namely IEEE IGARSS 2020 (IEEE International Geoscience and Remote Sensing Symposium 2020). This framework will help to find the reason behind the widespread devastation in the remote area and enable emergency responders to gain lead-time for supplying emergency relief operations. We combined different image descriptors and it is able to achieve comparable results as obtained by the existing state-of-the-art methods. In addition, the proposed framework attains better results (in terms of accuracy) compared to the deep convolutional neural network at a lower computational cost.

At the end of the talk, we discussed on how the near real-time AI in the satellite imagery can be useful in disaster risk reduction (DRR) and disaster risk governance (DRG).

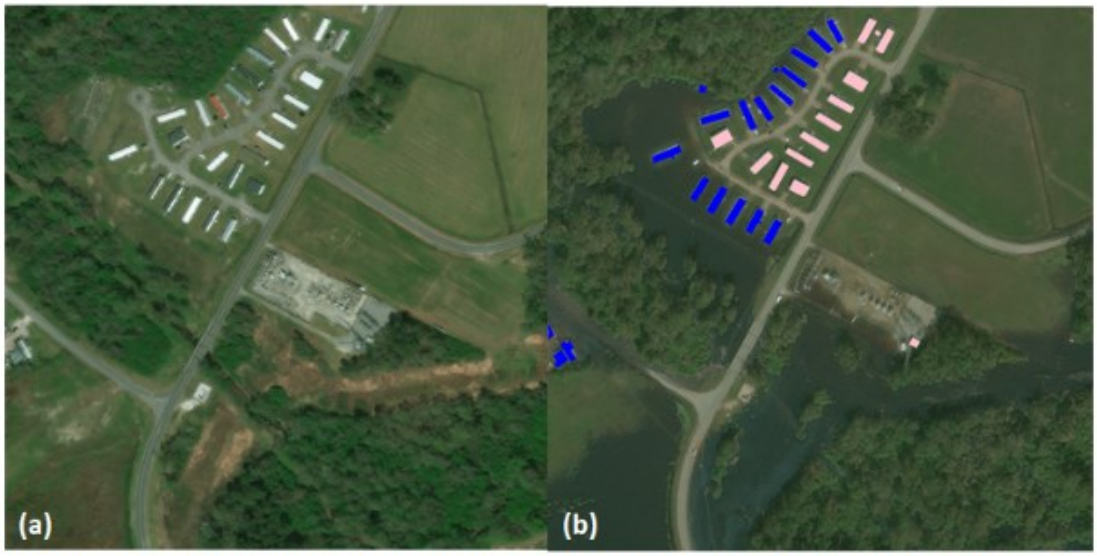

Figure 2. (a) Post-disaster satellite image. (b) Same satellite image masked using multi-color with color coding representing damage level of buildings (Pink: No-damage, Blue: Major damage).

COVID 19 and GADRI

COVID-19 – Lessons from Disaster Research

Decades of disaster research provide important lessons that will help us through the COVID-19 pandemic. Speaking as one, the leaders and members of the Global Alliance of Disaster Research Institutes, the North American Alliance of Hazards and Disaster Research Institutes, United Kingdom Alliance for Disaster Research and the Africa Alliance for Disaster Research Institutions know that:

First, this global pandemic has been widely anticipated and foretold. Experts over many years forecast a pandemic with scale of illness, swiftness of spread, scarcity of critical medical resources and profound impact on society such as we are now experiencing. Current response efforts and decision-making are benefiting from previous pandemic and disaster research. Disaster research provides an essential science foundation for effective decision making before, during and after a crisis strikes.

Second, much of this knowledge did not translate into adequate preparedness. This is part of a larger phenomenon that experts have identified as "planning for the last disaster." We often invest in getting ready for the last disaster with a fading sense of urgency as time passes. Stockpiling of resources and redundancy in capacity is seen as wasteful and is eliminated rather than being recognized as preparedness for inevitable extreme weather, geophysical, epidemic or other hazards. Discounting future impacts over current circumstances may be characteristically human, but this myopia based on short-term, political or economic benefits is particularly common among persons and entities making decisions in the public-political arena who, moreover, don't bear the brunt of their decisions. We know from past studies that actions taken in advance to prepare for known risks consistently result in avoided losses many times greater than the cost.

Third, failure to prepare most impacts those who are marginalized and disenfranchised—the poor, the sick, minorities, immigrants, refugees, the uninsured and children. For nations where social safety nets are frayed or non-existent, residents will depend on financial support and rescue packages from their government. Without coping and recovery mechanisms, resort is to reactive ad-hoc emergency spending rather than investments in community resilience that would avoid hardship in the first place.

Fourth, abiding by core principles of risk communication can save lives. Decades of research have established best practices for effective communications in a disaster. These include messages tailored to specific audiences from trusted sources on what to do and how to do it, especially for more vulnerable groups less likely to receive information through traditional channels. Many of these core principles are currently being violated. This must stop, as lives are being lost. We need to have effective risk communication.

Fifth, transparency, situational awareness and recovery planning are essential. Only when we truly understand the risk and most effective responses can we all contribute to the solution. Many fields of science rely on global and open exchange of data. A continuing stream of ambiguous and incomplete messages erodes public confidence and the ability to effectively manage the disaster. While the current priority is rightly focused on preventing the spread of COVID-19, responding to the needs of those infected and addressing the severe economic dislocations, it is also important to begin planning for recovery. As early as possible, a longer-term vision of the impact, recovery planning and endgame are needed so that people and businesses can plan, act and recover.

Sixth, extreme events evoke remarkable acts of altruism but also can bring about a disturbing lack of humanity. It is important to celebrate positive actions, including mutual support for friends and strangers in need. It is just as crucial that we remain watchful for abuse and wrongdoing at all levels of society and take action to confront inappropriate behaviour.

Lastly, as our global community struggles with the pandemic, we must also continue to be prepared for flooding, wildfires, hurricanes, tornadoes and other natural hazards, and not lose sight of the long-term issue of climate change. Moreover, COVID-19 requires that we adapt some established emergency management practices, like planning for emergency evacuation shelters.

Sound science is essential to good decisions. Disaster research finds that those who embrace evidence-based preparedness in their risk management practices suffer less and rebound quicker.

By: GADRI Secretary-General, members of the GADRI Board of Directors, GADRI Advisory Board, and other members of GADRI

- Hirokazu Tatano, DPRI, Kyoto University, Japan
- Charles Scawthorn, University of California, Berkeley, USA
- Lori Peek, Colorado University, Boulder CO, USA
- Paul Kovacs, University of Western Ontario, Canada
- Andrew Collins, Northumbria University, U.K.
- Gretchen Kalonji, Sichuan University, China
- Manabu Hashimoto, DPRI, Kyoto University, Japan
- Renn Ortwin, Institue for Advances Studies (IASS), Germany
- Zita Sebesvari, Institute for Environment and Human Security, United Nations University, Germany
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- John van de Lindt, Colorado State University, USA
- Toshio Koike, Public Works Research Institute (PWRI), International Centre for Water Hazard and Risk Management (ICHARM) under the auspices of UNESCO, Japan
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- Rich Olson, Florida International University, USA
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COVID-19 -Lessons from Disaster Research

A very brief comment on the GADRI statement

By Prof. David Alexander, IRDR, UCL

"Tell me, my man. Which is the quickest way to go to Dublin?"

"Well, to begin with, Sir, I wouldn't start from here."

Title: *COVID-19 – Lessons from disaster research*

This is good: short, pertinent and to the point.

"... this global pandemic has been widely anticipated and foretold. Experts over many years forecast a pandemic with scale of illness, swiftness of spread, scarcity of critical medical resources and profound impact on society such as we are now experiencing. Current response efforts and decision-making are benefiting from previous pandemic and disaster research. Disaster research provides an essential science foundation for effective decision making before, during and after a crisis strikes."

The planning scenario has been compiled for at least 12 years. What is striking about the progress of the Covid-19 pandemic is the lack of input at many official levels of *disaster* specialists, risk managers and emergency planners. These fields are dominated by everyone from epidemiologists to economists, who have no specific expertise in managing disasters as disasters.

"...much of this knowledge did not translate into adequate preparedness. This is part of a larger phenomenon that experts have identified as "planning for the last disaster." We often invest in getting ready for the last disaster with a fading sense of urgency as time passes. Stockpiling of resources and redundancy in capacity is seen as wasteful and is eliminated rather than being recognized as preparedness for inevitable extreme weather, geophysical, epidemic or other hazards. Discounting future impacts over current circumstances may be characteristically human, but this myopia based on short-term, political or economic benefits is particularly common among persons and entities making decisions in the public-political arena who, moreover, don't bear the brunt of their decisions. We know from past studies that actions taken in advance to prepare for known risks consistently result in avoided losses many times greater than the cost."

Governments knew this so the real question is why was preparedness so badly neglected? In a world in which austerity has achieved massive transfers of wealth from the poor to the rich, the answer is very clear. Health and welfare services have been reduced and privatised. The ideology that led to these changes militates against emergency preparedness. The confirmation of this can be seen in the economics of Covid-19: economists confirm that they are a disaster for the majority and a huge opportunity for enrichment for the wealthy. Pandemics do provide business opportunities, above all for those who command the mobility of capital. Any failure to acknowledge this should be regarded as naivety. Governments did not "forget" to stockpile, plan and prepare: they took the decision not to do so. There is abundant evidence to confirm this observation: see for example, the UK National Register if Civil Risks. For a decade, pandemics were top of the list among 94 risks the country faces, and yet when the inevitable happened, the UK was patently unprepared.

"...failure to prepare most impacts those who are marginalized and disenfranchised—the poor, the sick, minorities, immigrants, refugees, the uninsured and children. For nations where social safety nets are frayed or non-existent, residents will depend on financial support and rescue packages from their government. Without coping and recovery mechanisms, resort is to reactive ad-hoc emergency spending rather than investments in community resilience that would avoid hardship in the first place."

We now see the inversion (temporarily?) of ideology in expansion of welfare and support for health systems. Undoubtedly too little, too late to save many lives and livelihoods, but a striking reversal nonetheless.

In a world increasingly dominated by defensive "identity politics" solidarity is fast withering on the vine. We are seeing the subversion of emergency response (Hungary) and negligence by demagogic leaders (Brazil, USA). It is increasingly clear that transparency, accountability and democracy are necessary conditions for disaster risk reduction and that point needs to be emphasised.

"...abiding by core principles of risk communication can save lives. Decades of research have established best practices for effective communications in a disaster.

"...These include messages tailored to specific audiences from trusted sources on what to do and how to do it, especially for more vulnerable groups less likely to receive information through traditional channels. Many of these core principles are currently being violated. This must stop, as lives are being lost. We need to have effective risk communication."

Decades of research have not been able to tackle the radical changes of the last ten years. We now have an information battle and an "infodemic". The UN has acknowledged this. False and misleading information are decisively out of control with potentially catastrophic consequences. This leads to the destruction of the mobile telephone equipment that emergency services depend upon, under the assumption that it causes viruses. Opposition to vaccination may be in retreat but its consequences are now even more serious than before in terms of the prevention of epidemics. Conspiracy theories are the elephant in the room. They may be ridiculous, but they can be extremely harmful. It is not merely a question of providing good scientific information. That strategy has failed to curb them. The question now is how to use reliable information to combat them effectively.

"...transparency, situational awareness and recovery planning are essential. Only when we truly understand the risk and most effective responses can we all contribute to the solution. Many fields of science rely on global and open exchange of data. A continuing stream of ambiguous and incomplete messages erodes public confidence and the ability to effectively manage the disaster. While the current priority is rightly focused on preventing the spread of COVID-19, responding to the needs of those infected and addressing the severe economic dislocations, it is also important to begin planning for recovery. As early as possible, a longer-term vision of the impact, recovery planning and endgame are needed so that people and businesses can plan, act and recover."

We are dealing with decades of the ramping up of competitiveness in science and scholarship. The incessant ranking of institutions is one illustration of this. To call very suddenly for cooperation when prestige, funding and jobs depend on being able to beat one's competitors is an absurdity. The funding shortfall caused by the cessation or mutation of activities will be met by competing even more energetically than before. It has already started to happen, for example in the university in which I work.

"...extreme events evoke remarkable acts of altruism but also can bring about a disturbing lack of humanity. It is important to celebrate positive actions, including mutual support for friends and strangers in need. It is just as crucial that we remain watchful for abuse and wrongdoing at all levels of society and take action to confront inappropriate behaviour."

It is therefore time to re-evaluate Alan Barton's concept of the post-disaster 'therapeutic community'. Abuse and wrong-doing occur within the context of national and international situations. The Covid-19 pandemic is a golden opportunity for organised crime. In places like Italy and Colombia it has taken over some of the role of the state in providing employment and enhanced welfare. Inappropriate behaviour starts with political leaders (Trump, Bolsonaro, Orbán) and can be capillary. Factionalism rather than unity is the root problem.

"...as our global community struggles with the pandemic, we must also continue to be prepared for flooding, wildfires, hurricanes, tornadoes and other natural hazards, and not lose sight of the long-term issue of climate change. Moreover, COVID-19 requires that we adapt some established emergency management practices, like planning for emergency evacuation shelters."

Emergency planning needs to move from a simplistic basis to confronting the true complexity of emergencies. Cascading, concurrent, compound, interacting and interconnected risks are the way of the future. The field of emergency planning needs to become much more mature and to work out a way of getting itself taken much more seriously.

"Sound science is essential to good decisions. Disaster research finds that those who embrace evidence-based preparedness in their risk management practices suffer less and rebound quicker."

Evidence-based practice is inherently a good idea, but Covid-19 is a good illustration of just how incomplete, controversial, ambiguous and liable to misinterpretation evidence actually is.

Conclusion: The GADRI umbrella could be a powerful tool to promote good practice, but this needs to take account of (a) the context of the modern world - e.g. factionalism, identity politics, information revolutions, the consequences of 'infodemics', austerity, etc. - and (b) the challenge of providing real solutions based on workable analyses of existing complexity. Although the message can be depoliticised to an extent in order to make it appear impartial, there are now distinct limits to how much this can be done.

COVID-19 – Where should we go now?

By: Claire Allen, Operations Manager

Evidence Aid (www.evidenceaid.org) is a UK-based charity with international roots. It has collated and translated more than 270 coronavirus-related research papers to aid clinicians, policymakers and other decision-makers around the world both in high and low resource settings.

Starting at the beginning of March 2020, Evidence Aid has (at mid-June 2020) published summaries of more than 270 papers related to COVID-19 – each translated into one or more of seven languages – Arabic, Chinese Simplified, Chinese Traditional, French, Italian, Portuguese and Spanish (soon to be eight to include German). Since the COVID-19 collection was launched, over 70,000 people have used the website (https://evidenceaid.org/evidence/coronavirus-covid-19/) from around the world. International organisations, including the Pan American Health Organisation and the World Health Organisation, have praised Evidence Aid's work. Every day more summaries are being added to the collection and more translations uploaded.

The summaries are written by volunteers (including professors, doctors, nurses, medical writers, PhD students and undergraduates) all around the world. They are quality checked by a panel of experts, are intended for use by anyone – both in high and low resource settings. They are freely available to anyone and the website is mobile-optimised. To ensure the relevance to low resource settings articles are reviewed by volunteers in those settings who can assess the applicability to their health care delivery. The volunteers are not only summary writers, but also take part in screening, searching for relevant records, administrative support and website maintenance.

Unsurprisingly, some of the most popular resources are those on the effectiveness of facemasks and quarantine, although this often changes related to what is a much-discussed topic in the world media and in specific countries. Studies summarised and translated on the open access website range from infection prevention and control (including for healthcare workers) to social issues, mental health and the impact on levels of domestic violence. The collection includes summaries of systematic reviews that might be relevant to the direct impact of COVID-19 (including reviews of emerging research as well a reviews of relevant treatments) on health and other outcomes, the impact of COVID-19 response on other conditions and longer terms issues to consider for the recovery period after COVID-19.

Frontline workers and decision makers in countries around the world are crying out for information they can swiftly absorb and apply immediately in clinical settings. Most of these workers don't have time to read through, what is now, thousands of research papers. In fact, evidence from the work Evidence Aid has done suggests many may only have time to engage with posts on social media. We need to give them the information they need, in the format need, in the language they need at the time that they need it.

New research into COVID-19 is needed and vast amounts of money are being spent on producing it. But there is also an urgent need to ensure that governments and health systems around the world know about evidence relevant to COVID-19 that already exists in order to save valuable resources where possible. Evidence Aid and its partners suggest that it is possible to prevent wasted resources and the implementation of potentially harmful strategies if governments, medical research bodies and UN bodies provided organisations like Evidence Aid with a fraction of the funding currently being poured into primary studies seeking treatments and vaccines.

Although urgent action is needed now, the issue goes much deeper than COVID-19.

COVID-19 – Where should we go now?

It would be pertinent to form a strong evidence-base for future health disasters like COVID-19. Evidence Aid have long argued that the international organisations who made use of its resources even before COVID-19 need to invest in a proper evidence resource for health disasters. The fact that this hasn't yet happened and evidence resources are still being produced around the world by many different organisations is particularly frustrating as COVID-19 is proving that systematic reviews and wide dissemination of research are far better value for money and more effective than funding a massive number of new studies. It is important that COVID-19 allows us to learn from our mistakes and invest in better systems for the future whilst not forgetting research done in the past.

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With COVID-19 and other science research challenges in the disaster sector we see funding of many studies that often don't answer key questions and that overlap or repeat what has been done before. It would be better and less expensive if evidence-based study outcomes were brought together and made quickly available in a range of languages.

Evidence Aid was established by people linked to Cochrane, the internationally respected medical research body. It has provided research custodianship, synthesis and communication in clear accessible formats to the humanitarian and disaster sectors for 15 years, being established after the Indian Ocean tsunami.

We are still accepting volunteers for the project so if you think you can help us, please do contact Claire Allen (callen@evidenceaid.org).

Collection of Critical Situations during Flood Emergency Response

Miho Ohara and Masakazu Fujikane

International Centre for Water Hazard and Risk Management (ICHARM)

Under the auspices of UNESCO, Public Works Research Institute (PWRI), Japan

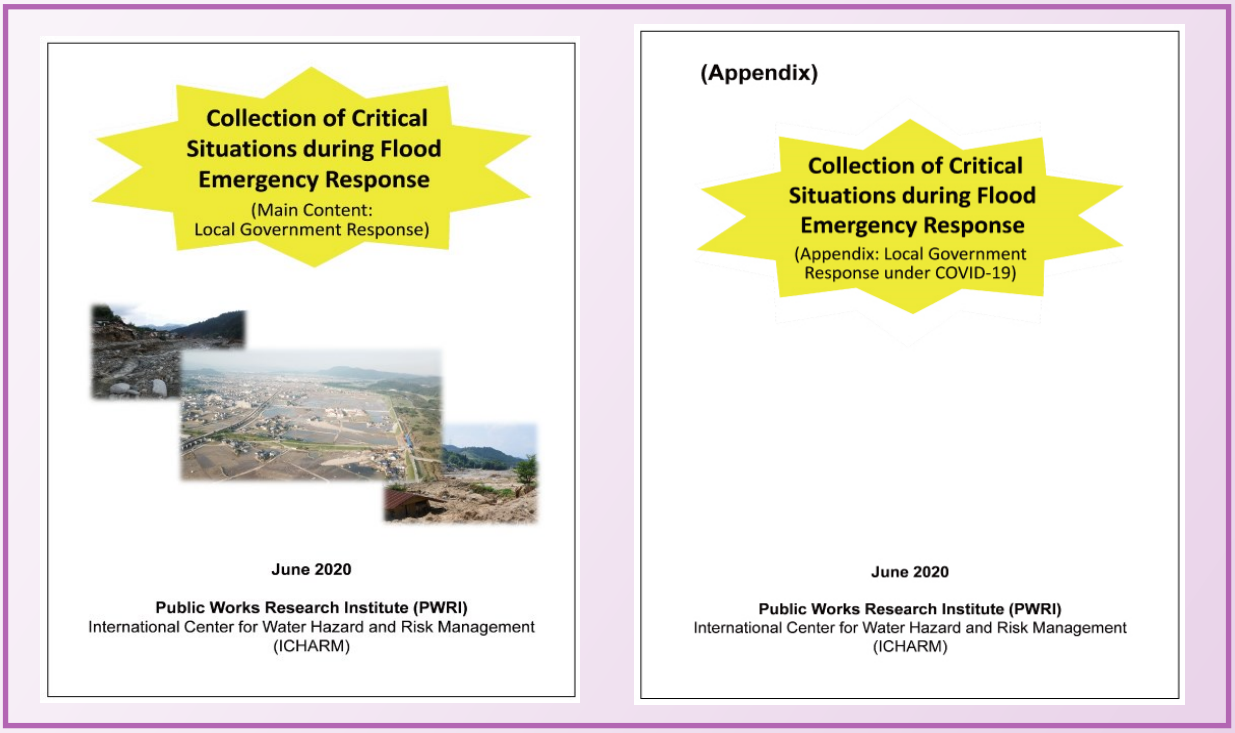

Figure 1 Cover pages of the main content and appendix

The International Centre for Water Hazard and Risk Management (ICHARM) under the auspices of UNESCO has published a booklet entitled "Collection of Critical Situations during Flood Emergency Response," aiming to improve the emergency response capacities of local governments for more effective management of flood disasters. The collection consists of the main content, "local government response," and an appendix, "local government response under COVID -19." It is downloadable in PDF file format on the website (https://www.pwri.go.jp/icharm/special_topic/20200625_flood_response_collection_e.html).

Several local governments in Japan have recently published after-action review reports (post-disaster reports), in which they review their emergency response during a disaster and identify lessons to improve their efforts based on their disaster experience. These reports include plenty of wise feedback from personnel members who offer their contrition and improvement proposals about cases where the response to a disaster did not go well, of which many of the case study examples serve as advice to other local governments on how to combat disasters. Indeed, there are reports of similar critical situations experienced by numerous local governments. And, many of the other affected local governments would doubtless express regret if they did not know about these cases in advance.

Defining critical situations in which local government officers have a hard time making sensible decisions because they panic, don't know what to do, are confused or in dilemma, etc., during an emergency response effort, ICHARM collected typical critical situations from the review reports of past flood disasters in Japan. As a result, some 500 cases offering instructive lessons to be learned were collected from the 2,000 or so pages in the 30 documents read. The booklet features 28 typical cases of critical situations, each printed on a two-page spread with lessons in terms of "Facilities," "Procedure," and "Skill" to assist local government officers in taking more practical measures.

In emergency response during a flood disaster amid the COVID-19 crisis, it is important to conduct infection prevention measures in guiding residents' evacuation and admitting them to evacuation centers, in addition to the measures taken in conventional flood disaster response. To this end, the "Appendix for local government response under COVID-19" describes 28 possible critical situations and necessary countermeasures in case of a flood disaster under the plague in terms of "Facilities," "Procedure," "Public relations" and "During disaster response." Here, the classification of "Public relations" is used instead of "Skill" raised in the main content "local government response" as fomenting the "Skill" requires time under the urgent risks of flooding under COVID-19. Nevertheless, continuing to push the "public relations" perspective will help to foment "human skills". The appendix refers to several guidelines issued by the Cabinet Office and the Ministry of Health, Labour and Welfare of Japan, and "A guideline for the creation of countermeasures against flood disasters during a pandemic situation (COVID-19)", which was co-authored by Associate Professor KOYAMA Maki of Gifu University and Professor KANBARA Sakiko of the University of Kochi.

Since flood emergency response under COVID-19 is new experience for local governments, this publication aims to provide some hints for them to plan necessary countermeasures considering their needs and situations, including the prevalence of the disease among the residents.

We hope that this publication can help local government officers to cope with disasters, not as something distant from their reality but as their immediate problem, and enhance the response capacity of their organizations against disasters.

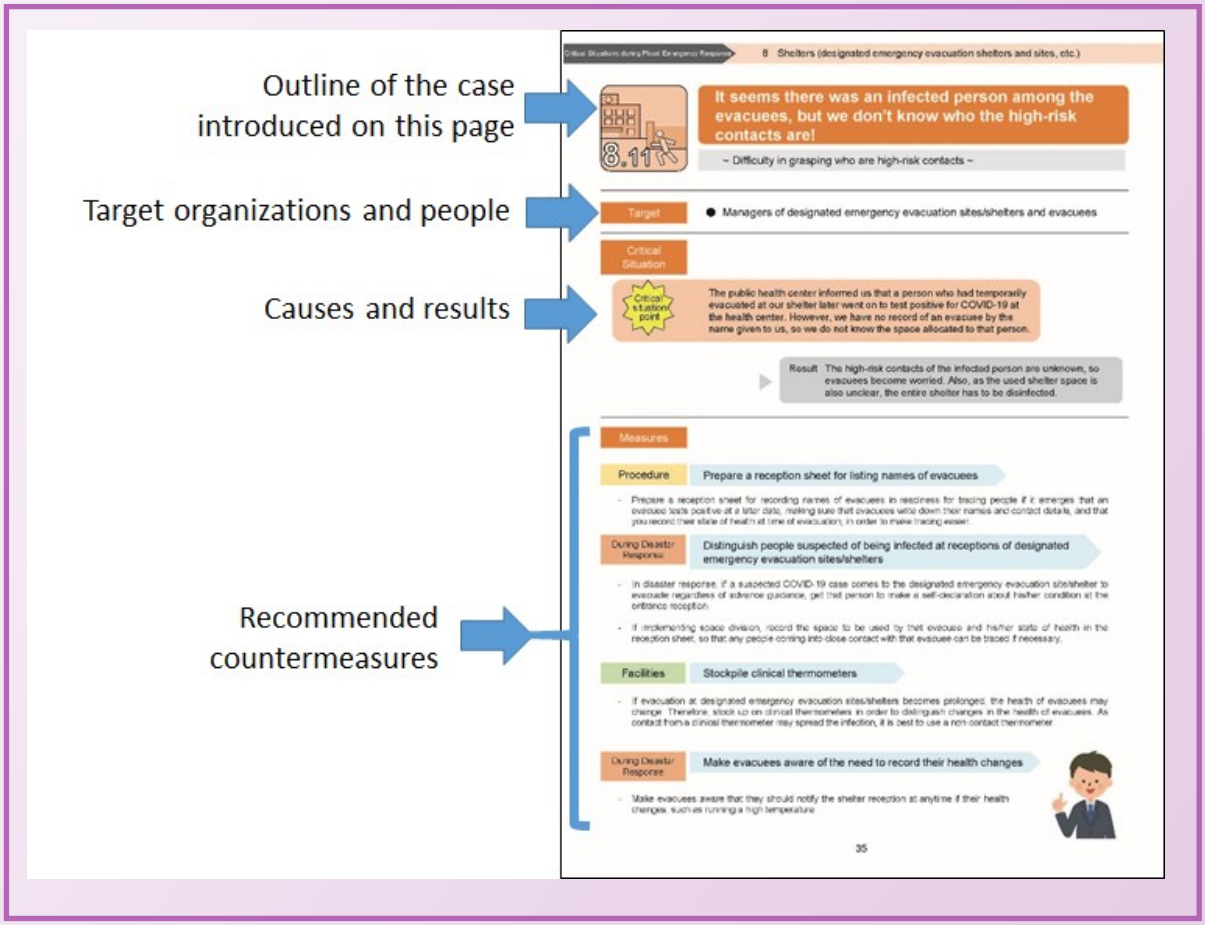

Figure 2 Sample page of the appendix on local government response under COVID-19

For further information, visit: - https://www.pwri.go.jp/icharm/special_topic/20200625_flood_response_collection_e.html

The Psychology of Disaster Recovery: Linking Trauma Studies with Disaster Relief

By Prof. John Clammer, O. P. Jindal Global University, India

One of the relatively neglected aspects of post-disaster recovery is its psychological dimension. Yet anyone with knowledge of such situations will recognize immediately that the experience of passing through a natural disaster (or a conflict situation) leaves deep psychological scars. Loss of home and the personally precious things that it contains (quite apart from their economic value), physical hurt, the loss of family members, friends and neighbours, and, something that is hardly recognized at all, the loss of familiar landscapes and the configuration of spaces in which one has lived, and perhaps grown up. But recognizing these factors suggests a strong link between post-disaster recovery and trauma studies, a field in which the author of this short piece has worked. Most earlier studies of trauma from a psychological or sociological point of view have been primarily concerned with either individual trauma resulting usually from unsought sexual violations or from violence experienced in such contexts as being a crime victim, or with war and conflict. With time, however, this framework has been gradually expanding to include the experiences of such groups as refugees and other displaced groups, and, as I suggest here, is a profoundly important approach for post-disaster studies and practical intervention in the recovery process.

"Build Back Better" approaches have rightly stressed the reconstruction of community as an essential element in post-disaster reconstruction, and that itself has strong links with social psychology. But trauma studies suggest "hidden" links that are not often recognized. These include, as suggested above, the radical transformation of familiar landscapes and spaces, but also includes economic factors, not only in the more obvious sense of the loss of livelihood and income and perhaps the destruction of the tools of one's trade, but the loss of the sense of self associated with that occupation when it is snatched away from oneself. This is confirmed by sociological and psychological studies of the long term unemployed, where while loss of income is clearly a critical factor, the loss of the ability to position oneself in society, to take pride in a professional competence, however humble it might be, and the inability to answer the question "And what do you do?" that forms an important part of our identity are equally significant. Related to this are questions of age and gender – in fact of the demography of disaster-hit communities. In the case of Aceh in Indonesia, devastated by the Indian Ocean tsunami, many younger men were spared because they were away from their villages when the wave struck. They physically survived, but at the terrible psychological cost of losing parents, children and younger siblings. What might be called the "differential psychology" of disasters is probably as important as the economic impact, and certainly plays a key role in the re-establishment of communities, which are "damaged" not only by material destruction, but even more deeply by the fragmentation of social ties that can never be reconstituted in anything like their original form.

Studies of war survivors, and of military personnel who have fought in such situations, have shown the prevalence of PTSD – severe and chronic post-traumatic stress disorder – and the extent to which this manifests itself in lack of social trust, insecurity and excessive reactions to any event or circumstance that recalls the origin trauma, numbness, and a long term sense of meaninglessness in life.

These are also the symptoms exhibited by survivors of natural disasters. And similarly, as with war trauma, healing takes place largely through the restoration of a trustworthy community, and by a process of mutual healing – by survivors, not to survivors (however useful professional psychiatric and other help may be at certain points in the recovery process). A lot of this healing process has to do with the survivors being able to create narratives, stories of what has happened to them that allow them to re-integrate their memories with the re-establishment of something like a "normal" life again. Equally important is the wider community that helps to reintegrate survivors and to assist them in the slow movement from the status of "victims" to that of full "citizens" again. This should not be underestimated: studies of war trauma victims have shown that a large part of their long term problem is that society after a while does not want to listen: it wants to forget exactly what the victim can never forget.

Trauma studies provide an important link in establishing methods and approaches to post-disaster recovery, and is also a valuable way of applying the insights of medical sociology which is concerned among other things with notions of illness, of illness narratives in which the sick try to make sense of their experience and find meaning in it, and with how recovery happens. The parallels here are significant and provide potentially fruitful insights into not only illness, but recovery from any traumatic experience.

Footnote:

There is a growing literature in trauma studies. Among the interesting studies are:

- Cathy Caruth (1996) Unclaimed Experience: Trauma, Narrative and History. Baltimore: Johns Hopkins University Press.
- Didier Fassin and Richard Rechtman (2009), The Empire of Trauma. Princeton: Princeton University Press.
- Saskia Sassen (2014) Expulsions: Brutality and Complexity in the Global World. Cambridge MA: Harvard University Press.
- John Clammer (2012) Culture, Development and Social Theory. New York and London: Zed Press.
- Jonathan Shay (1994) Achilles in Vietnam: Trauma and the Undoing of Character. New York: Scribner.

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Established in March 2015, the Global Alliance of Disaster Research Institutes support the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR) and the work of the Scientific and Technical Advisory Group of the United Nations Office for Disaster Risk Reduction (UNDRR).

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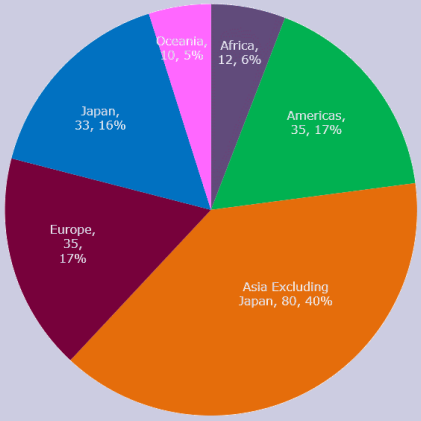

Area	Members	Economies
Africa	12	7
Americas	35	8
Asia (Excluding Japan)	80	23
Europe	35	12
Japan	33	1
Oceania	10	2
Total Institutes	205	53

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