

# PUBLIC WORKS AFTER INTERNATIONAL DISASTERS: AN IMPORTANT ROLE FOR ENGINEERS

Alan McLean, CEO, RedR Australia

## Abstract

More people, more disasters, more often, and more damage equals greater humanitarian need. To address the needs after disasters and manmade emergencies which dislocate large populations, more carefully-selected, experienced and thoroughly prepared engineers are required, and will be needed in greater numbers in future.

RedR Australia is a contributor to the response network of the United Nations, and is a respected provider of engineering and other personnel.

Given the nature and scale of the needs, thorough and realistic preparation is required via short, mandatory RedR Australia training courses.

The realistic and challenging courses purposely address the difficult working environment of the engineer in the humanitarian field.

Cross-cultural awareness, the importance of professional and personal affairs being under control at home, the dynamics of working in multinational teams, and the security elements which often accompany the tasks in the field are canvassed in the paper.

The work is challenging, with a mixture of frustration and personal satisfaction of helping being common responses.

**Key Words: humanitarian, disasters, conflict, emergency, training, relief, personnel, assessment, reconstruction, engineers**

## Introduction – What’s the problem?

By any assessment, the outlook for many of the world’s people is not promising.

Population numbers are growing.

Concentrations in fertile, food-producing river valleys are increasing. Extreme events will be more frequent. Cyclones, storm surges, extreme tidal conditions ---- all threaten low-lying areas including deltas and river valleys. Low flat islands face the certainty of higher water levels, regardless of the debate about the quantum of expected rises.

Marginal cropping land will be lost in areas where below-average rainfall arrives, either due to climate change or usual variation in precipitation.

Any or perhaps all of these situations will generate unprecedented movements of people, adding to the existing refugees who have crossed national borders, and internally displaced people who move within their own countries, under threats of violence and political instability.

All this before the “regular” sequence of earthquakes, volcanic eruptions, landslides, wildfires and so on.

All this before victimisation arising from open conflict in various perennial or emerging trouble-spots.

All this before significant outbreak of diseases, either known or possibly unknown at present.

Some of this will be played out in predictable areas, but some regions may experience catastrophes not previously recorded. Timing cannot be called with any accuracy. **The only certainty is that many more people will need external help if they are to survive and re-establish sustainability.**

## What’s to be done?

Put simply, countries with appropriate resources will need to become more capable of helping people in countries which are less fortunate.

Across the planet smarter decision-making will be needed in risk minimisation, encouraging settlement in areas of lesser threat.

Skills will need to be honed to deliver the fastest, most practical relief action to those who survive catastrophes which have rapid onset and high impact ----- earthquakes, cyclones and storm surges.

Engineers, particularly those currently in local government and related environments, have plenty to offer and can expect to receive more calls for their help in the years ahead.

There are channels for interested and capable people to make a humanitarian contribution. One opportunity might arise via RedR Australia, which has been involved in disaster response since 1993.

The Institute of Public Works Engineers of Australia is one of four engineering umbrella bodies which created RedR Australia.

**This presentation outlines how the RedR Australia system works, and it borrows very heavily on the old motto of the Scouting movement ---- “Be prepared!” RedR Australia – People Helping People**

RedR Australia is a humanitarian organisation whose mission is to relieve suffering in disasters by (1) selecting, (2) training and (3) providing competent and effective relief personnel to humanitarian relief agencies worldwide.

### **How does RedR Selection Work?**

RedR Australia believes that people who have lost virtually everything in natural or manmade disasters deserve the assistance of qualified, experienced and understanding specialists.

Formal qualifications and eight to ten years of experience in your field might be regarded as a minimum. Demonstrated empathy with people of other cultures is important, together with an ability to work alongside specialists of other nationalities.

Recognition that operating in response to disasters and emergencies comes with a certain amount of pressure, and sometimes risk, is important. You don't need to have been in the action previously, but it is important to recognize that you will not be operating in Pitt Street Sydney, Collins Street Melbourne or any other comfortable office environment.

You need to develop an understanding with your employer in terms of temporary detachment from your position. Enlightened local government includes some pride in being able to release a staff member short-term to make what is, in effect, a local response to an international tragedy.

You need to develop an understanding with family that work of this type is sufficiently challenging to require full concentration in the field. If your mind is turning to unresolved “issues” on the home front, don't put your hand up until those matters are well resolved. Not fair to you or to family.

If you want some relief from periodic frustrations of local public works, think carefully. Your admirable desire to do “good works” after a disaster or emergency may bring its own swag of frustrations in the field. That said, the personal satisfaction of “making a real difference in the lives of people who have little or nothing” is a recurrent theme of those returning from field assignments.

The skill and experience profiles in greatest demand include technical services:

- ✓ Civil engineers  
site and shelter planners
- ✓ Road, bridge, airfield specialists  
water and sanitation
- ✓ Construction/structural engineers  
builders
- ✓ Engineering project managers  
electrical supply
- ✓ IT, radio, telecommunications

On the logistics side:

- ✓ Supply chain  
warehouse
- ✓ Fleet/transport  
vehicle workshop
- ✓ Port/dock  
air operations
- ✓ Logistics security  
general logisticians including leaders

There are other calls associated with coordination and special protection for most vulnerable groups.

### **How does RedR Australia provide people to the field**

It will appear that I have “jumped over” the training stage, but I will return to it after we consider the process of field placement. (It is important to see “end game” for the training and preparation information to be meaningful.)

RedR Australia has formal working partnerships with the authorised and accredited United Nations network of response to disasters and emergencies. RedR Australia does **not** set up operations in the affected countries ----- it provides staff on terms to the United Nations High Commissioner for Refugees (UNHCR), the World Food Programme (WFP), the United Nations Childrens Fund (UNICEF) and UN

Office for the Coordination of Humanitarian Affairs (OCHA).

As their names suggest, some agencies have particular specialist priorities (children, food), but they are often work side by side with governments in affected countries, handling the multiple phases of rescue and rehabilitation after natural disasters, or the complex sets of humanitarian needs when people relocate in large numbers seeking temporary refuge.

With some refugee camps having been in operation for 15-20 years, the concept of “permanent emergency” is no longer an oxymoron. These camps have “roads”, warehouses, accommodation of various types, water-sanitation-waste disposal services, sometimes schools and hospitals, virtually all of which need to be constructed from scratch. Then they need to be operated and maintained.

The UN bodies engage their own staff, employ local staff, and **call upon respected and proven partners such as RedR Australia to supply the additional skills needed to deliver the humanitarian action.**

Sometimes the Australian Government seeks to make a bilateral response to a stricken country and asks RedR Australia to bring forward the names of people who may be both suitable and available to an official Australian action.

The involvement of people via RedR Australia may come in the **immediate post-impact phase of a calamity, where the task is one of needs assessment.** This may involve the calculation of the scale of destruction in terms of roads, bridges, airstrips or jetties, damage to water supplies and sewerage installations, assessment of damage to electrical and telecommunication infrastructure.

Local ability to make such assessments is often hampered. Those who have responsibility may themselves be victims of the catastrophe.

Involvement may come as the response moves into **the phase of delivery, temporary storage and subsequent distribution of relief goods.** There may be a **phase of clearance of debris, and a period of assessment of where best to locate former infrastructure,** particularly if the topography has changed.

It is equally possible that participation may be as a **handover to extend a relief and reconstruction project commenced by others.**

At all times, the UN remains extremely conscious that while delivering a life-saving response, it is operating in a sovereign nation state. Theoretically at least, that country is in charge of the relief action and must be respected at all times.

This matter of access is not without complexity. There have been nation states reluctant to admit humanitarian relief personnel under a UN charter, for reasons which need not be analysed here.

By the nature of the situation that caused the emergency, the relief operation may carry significant risk to aid workers. To mention Somalia, Afghanistan and Iraq will be sufficient to make the point. RedR Australia does not offer staff just because the UN asks for people. RedR Australia makes its own assessment as to whether participation is indicated within acceptable risks, or not.

And of course, even if you have been assessed as suitable for work of this type, you do not have to accept all or any assignments offered. As with many circumstances, timing is everything.

### **RedR Australia training – the essential preparation**

As noted earlier, those affected in the disaster or emergency deserve the best possible response delivered by people who are the most capable in all respects.

RedR Australia’s reputation has been built upon its delivery of **practical, challenging and realistic training activity,** designed to equip appropriate people with the best possible preparation to confront complexity of large-scale responses in often isolated districts of countries remote from Australia. Central to this preparation is the satisfactory completion of a 5-day training course here in Australia which covers the growing world of humanitarian responses, the roles, the circumstances and the functioning of the UN system of emergency and disaster relief. A second core 4-day course analyses the role of communications and personal security for staff on mission, with emphasis on field scenarios which may typify the conditions to be found on assignment.

Both courses involve guidance from people with very significant field experience who explain what to do, and more significantly, what not to do, in operations where security may be problematic.

Not compulsory but increasingly important are specific and specialized training activities in disciplines such as logistics, water, sanitation and hygiene.

RedR Australia's training base is at Dookie, Victoria, on a rural campus of the University of Melbourne which previously served as an agricultural college. The campus allows a mix of theoretical and "hands-on" outdoor activity. Every effort is made to capitalise on the experience of people who have been in the field previously. In support of formal sessions, what are termed "fireside chats" in winter, and "barbecue yarns" at other times, enable practitioners to share field experience with newcomers.

Customised training in related activities is also delivered at other locations to approved clients by arrangement. Buyers of RedR Australia training include Australian and international aid agency staff being prepared for field assignments working within their own network of agencies.

A very sensible trend is the delivery of training jointly with UN training staff. How logical to prepare with UN attendance and participation, given that field assignments are obviously undertaken in partnership.

After the completion of the two compulsory courses, the interest in joining the RedR Australia family is assessed. For some the training experience reveals a preference to engage in development work with other organisations. It tends to be less intense than the tasks arising from big disasters or conflicts. This perfectly valid conclusion is better reached at Dookie before any drama, than in the middle of relieving a humanitarian crisis in a conflict zone!

For others, the outcome will be adding their name to the RedR Australia Register of approved personnel, procurement of passport, and other personal action to enable a quick departure when determined.

### **After training, what happens?**

The UN organisations circulate specific position descriptions. RedR Australia staff align these vacancies with the experience profiles of members of the Register and send

out the PDs by email. Those interested agree to their name and CV being sent to the UN body which quickly advises whether the nomination has been accepted.

It is then "all systems go", with RedR Australia staff assisting to obtain visas if necessary (often available on arrival), air tickets, medical clearances, etc.

A formal contract is prepared to engage the person for secondment, usually to the UN body, for a specified period. Payment is arranged to nominated bank account, superannuation payments set in motion, and insurance provisions are taken up. Briefings are provided pre-departure, but are generally and understandably only a preliminary to the briefing delivered upon arrival in the field.

On return you bring back information to inform subsequent briefings for others headed to the same or a similar assignment. Of course there is no compulsion to be available 52 weeks of the year. You can "opt-out" of consideration for specified periods ----- just so long as RedR Australia staff members are notified.

Some people are "uncomfortable" at being paid for their services. RedR Australia recognises that if you are to volunteer purely on voluntary terms, you would be equally valid in withdrawing your contribution if the field situation proves not to your liking. This outcome would obviously not be in the best interests of people who need humanitarian aid, the UN bodies, or RedR.

You are paid on assignment. If, on return from the field this still bothers you, you can always donate an equivalent figure to RedR Australia for re-investment in the program. It is, after all, a community-based, not-for-profit body.

We have earned the respect and support of successive Australian governments which have provided a portion of the foreign aid vote to fund costs associated with capable, experienced and practical Aussies going off to do "good work".

And reputation is well established. The UN bodies report very favourably on a general Australian willingness to get stuck into the assigned tasks, and be ready to turn a hand to other things which may need attention in the generally complex world of emergency responses.

**Conclusion – Have you got what it takes?**

If this possibility interests you, or may do so in the future, start talking! To your employer. To your family. To RedR Australia. To others who may have undertaken similar work in the past.

Certainly tour [www.redr.org.au](http://www.redr.org.au) as the website has plenty of information.

Not everyone *can* go to the field. Almost everyone can provide back-end support in a range of ways to help the RedR Australia mission. Your interest will always be welcome. You will have the personal satisfaction of knowing that with every Aussie who goes out to confront the daunting task of responding to humanitarian need, a little of you goes with them.