RCRC
Red Cross Red Crescent
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The future of international humanitarian law
An artist's view of the rules of war in the year 2064

Our Red Cross and Red Crescent stories
8 May theme celebrates your connection with the Movement

Looking back, moving forward
Remembering Rwanda's past and building a brighter future

Programmed for war

Imagining the future of armed conflict

THE MAGAZINE OF THE INTERNATIONAL
RED CROSS AND RED CRESCENT MOVEMENT

The International Red Cross and Red Crescent Movement is made up of the International Committee of the Red Cross (ICRC), the International Federation of Red Cross and Red Crescent Societies (IFRC) and the National Societies.

ICRC

International Federation of Red Cross and Red Crescent Societies

The International Committee of the Red Cross is an impartial, neutral and independent organization whose exclusively humanitarian mission is to protect the lives and dignity of victims of armed conflict and other situations of violence and to provide them with assistance. The ICRC also endeavours to prevent suffering by promoting and strengthening humanitarian law and universal humanitarian principles. Established in 1863, the ICRC is at the origin of the Geneva Conventions and the International Red Cross and Red Crescent Movement. It directs and coordinates the international activities conducted by the Movement in armed conflicts and other situations of violence.

The International Federation of Red Cross and Red Crescent Societies (IFRC) is the world's largest volunteer-based humanitarian network, reaching 150 million people each year through its 189 member National Societies. Together, the IFRC acts before, during and after disasters and health emergencies to meet the needs and improve the lives of vulnerable people. It does so with impartiality as to nationality, race, gender, religious beliefs, class and political opinions. Guided by Strategy 2020 — a collective plan of action to tackle the major humanitarian and development challenges of this decade — the IFRC is committed to 'saving lives and changing minds'.

National Red Cross and Red Crescent Societies embody the work and principles of the International Red Cross and Red Crescent Movement in more than 189 countries. National Societies act as auxiliaries to the public authorities of their own countries in the humanitarian field and provide a range of services including disaster relief, health and social programmes. During wartime, National Societies assist the affected civilian population and support the army medical services where appropriate.

The **International Red Cross and Red Crescent Movement**
is guided by seven Fundamental Principles:
humanity, impartiality, neutrality, independence, voluntary service, unity and **universality.**

All Red Cross and Red Crescent activities have one central purpose:
to help without discrimination those who suffer and thus contribute to peace in the world.

The will to defeat genocide

Twenty years since the start of the Rwandan genocide, the memory of this horrific event continues to shock humanity's shared conscience and fortifies our commitment to fight impunity for this most heinous crime. Along with the atrocities witnessed during the Holocaust and in Srebrenica, the Rwandan genocide is part of a process of collective recognition that the crime of genocide cannot and must not go unpunished.

Photo: REUTERS/Luc Gnago

These abhorrent episodes highlight the importance of Raphael Lemkin's pioneering work and indefatigable efforts,* which led to the adoption of the Genocide Convention and the codification of a pledge to humanity to both deter *génocidaires* and hold them accountable for their criminality.

The legacy of the genocide in Rwanda is built not only on the nearly 1 million lives lost and betrayed by the inaction of the international community, but also on its impact on the development of international humanitarian law, atrocity prevention and justice for victims. This anniversary is an occasion to remember those lives and to examine critically the lessons of this tragedy.

The horrors of the Rwandan genocide ultimately compelled the international community to contemplate how to give greater effect to the Genocide Convention, reaffirming the worldwide consensus that crimes of this nature and magnitude should not go unpunished. The genocide was the most dramatic illustration of the dangers of political vacillation and the consequences of inaction. Today, taking action to prevent genocide is not a policy option, but rather an international legal obligation to enforce a peremptory norm.

In 1994, the United Nations Security Council established the ad hoc International Criminal Tribunal for Rwanda as a direct response to the Rwandan genocide. However, the wider lessons learnt from the political hesitation that allowed the genocide to occur laid the foundations for the establishment of a permanent international penal tribunal, as originally envisaged in the Genocide Convention and eventually crystallized in the form of the International Criminal Court (ICC).

The definition for the crime of genocide contained in the Genocide Convention was adopted verbatim into Article 6 of the Rome Statute, which endows the ICC with the ability to adjudicate incidents of this grave crime. The court brings into force the obligations of states to defeat genocide and to promote the investigation and prosecution of alleged perpetrators. The Rwanda tribunal and the ICC represent a new era of accountability, in which there shall be no refuge for *génocidaires* and no sanctuary for those who violate the sanctity of life and humankind.

The case law of the Rwanda tribunal is instructive in many areas of international criminal law, particularly genocide. For example, the Rwandan genocide involved unspeakable violence against women. Great strides have been made in legally defining how rape and other acts of sexual violence can be used as weapons of war and charged as crimes. On 2 September 1998, the tribunal delivered a groundbreaking decision in the Akayesu case, which, for the first time in history, explicitly recognized rape as an instrument of genocide when used as a means to destroy, in whole or in part, a national, ethnic, racial or religious group.

The Rwanda tribunal has made significant progress in terms of fighting impunity for genocide and seeking justice for victims. As a permanent judicial mechanism, the ICC has inherited this legacy and carries enormous potential. For the ICC — as with all such international judicial institutions — state cooperation is the indispensable requirement for its success. Though a rich and comprehensive body of international humanitarian and criminal law is now in place, as are independent, international institutions with the jurisdiction to apply such laws, the enforcement arm is key to ensuring the full, timely and systematic implementation of the rule of law.

If judicial decisions are not executed; if suspects are not apprehended to face justice in the courtroom; if sufficient resources are not made available; if all efforts are not exerted to protect victims and witnesses; and if requests for other types of cooperation are not fully adhered to, then justice will neither be truly done, nor seen to be done. As for the ICC, its States Parties must remain vigilant to uphold the fundamental values that are enshrined in the Rome Statute and serve as robust custodians of the treaty's object and purpose. As a general rule, the whole is greater than the sum of its parts. That's certainly true for the emerging system of international criminal justice in which state cooperation serves as its indispensable lifeline.

As we remember the horrors that unfolded in Rwanda and honour its victims, we renew our unyielding commitment to prevent mass atrocities and the hope of 'never again'. We are reminded that preventing genocide is an undertaking and a challenge shared by humanity as a whole. The ICC will certainly do its part.

By Fatou Bensouda, chief prosecutor of the International Criminal Court and former Attorney General and Minister of Justice of the Republic of the Gambia.

* Raphael Lemkin is best known for his work against genocide, a word he coined in 1944 and defined as 'the destruction of a national or an ethnic group'.

In brief...

Movement reaches out to besieged populations

With the Syrian conflict now entering its fourth year, the Movement again called on all armed actors to protect humanitarian workers and allow civilians safe access to assistance. The pleas came after the death of yet another Syrian Arab Red Crescent (SARC) volunteer, Hekmat Mohamad Kerbaj, who died on 8 January from wounds received while missing for roughly five months, according to the IFRC. Meanwhile, the ICRC and SARC continued efforts to reach people trapped by fighting in towns such as Barzeh, north of Damascus, and Homs. When SARC trucks loaded with humanitarian aid entered Homs in February, however, they came under rifle fire and a driver was wounded. Mortar shells were also fired near the convoy though the vehicles were clearly marked with the Red Crescent emblem. Despite the attack, SARC volunteers distributed food parcels, hygiene kits, and medicine. Around 600 people were evacuated. With over 1 million residents thought to be living in similarly besieged areas, the Movement reminds all parties that they are responsible to provide for the basic needs of populations under their control. Where they cannot, impartial humanitarian assistance and safe evacuation must be allowed.

Voices

"I pay tribute to the courageous relief workers bringing aid to Syrians in need. The 'red pillar' in Syria — the Syrian Arab Red Crescent, the IFRC and the ICRC — are critical in reaching the most vulnerable and besieged people."

United Nations Secretary-General **Ban Ki-moon**, speaking at the Second UN Pledging Conference for Syria in Kuwait City in January.

Fighting spreads in South Sudan

Movement workers in South Sudan have become increasingly alarmed by the brutal attacks against people not involved in the fighting that erupted in mid-December. "There have also been reports of health-care facilities being destroyed and patients being attacked," said Melker Mabeck, head of the ICRC's delegation in South Sudan. The ICRC has expanded its operations since December and South Sudan Red Cross volunteers have provided first aid and other assistance. Many volunteers, however, have themselves been displaced by the fighting. In the capital Juba, volunteers have helped provide displaced people living in camps with clean water and hygiene information. "The camps are overcrowded and sanitation facilities are stretched," said Ben Adeiza, IFRC health coordinator in Africa. "Conditions are conducive to an outbreak of disease such as acute diarrhoea and cholera."

Grasping the scale of CAR's catastrophe

As violence in the Central African Republic (CAR) has become increasingly brutal and widespread, the Movement has made urgent calls for an immediate end to attacks against civilians. "The population of [the capital] Bangui and the west of the country is being terrorized," said Georgios Georgantas, head of the ICRC delegation in the CAR. Antoine Mbao Bogo, president of the Central African Red Cross Society, adds that all sides must respect Red Cross volunteers who "have been working tirelessly on both sides of the intercommunal divide". He worries that the situation will worsen as the rainy season sets in and millions are left without adequate shelter, health care, food and safe water. "The world does not yet understand the scale of the disaster unfolding in the Central African Republic," he says. "I fear that by the time this crisis is recognized for what it is, it will be too late."

Photo: REUTERS/Wolfgang Rattay

Rising up after Typhoon Haiyan

Survivors of Typhoon Haiyan in the central Philippines continue to rebuild after one of the worst storms in recorded history, but recovery will be a long process. The fishing and agricultural sectors were particularly hard hit, with 95 per cent of fishing boats lost in some towns and millions of coconut trees destroyed. "It will take the coconuts five years to grow, so in the meantime we will survive on rice and root crops," says Julianito Cabalhin, a local official. In the months after the storm, the Philippine Red Cross and Movement partners distributed food, shelter items, water and cash to more than 1 million people. All told, the Movement raised over US$ 334.4 million for Haiyan response and recovery efforts, which now focus on livelihoods and shelter.

Thai Red Cross takes on misuse of emblem

When medical staff from several Bangkok hospitals marched in political rallies in January, many decided to carry Red Cross flags. In subsequent days, images of the flag-waving protesters spread on social media channels, major newspapers and television networks. The Thai Red Cross Society, which provides first-aid and health support during political disturbances, quickly denounced the use of the emblem for political purposes. The National Society reminded protesters and the media that the Red Cross remains neutral in political issues and that use of the Red Cross emblem is regulated by both international laws and a national emblem law passed in 1956.

IFRC selects new secretary general

The IFRC Governing Board has selected Elhadj Amadou (As) Sy as its next secretary general. Most recently serving as director of public-sector alliances and resource mobilization office with UNICEF in New York, Sy has also served as UNICEF's regional director for Eastern and Southern Africa and global emergency coordinator for the Horn of Africa. Prior to that, the Senegalese national was director of partnerships and external relations and deputy executive director at UNAIDS in Geneva.

Humanitarian index

34: Total number of SARC volunteers killed in the line of duty as of January 2014; many more have been wounded.

48: Percentage of US$ 106 million IFRC Syria: Complex Emergency appeal covered by contributions as of February 2014.

935,000: Number of people displaced by fighting in the Central African Republic.

1 million: Approximate number of people given food parcels and cooked meals by the Philippine Red Cross, with support from the Movement.

4 million: Number of downloads to date of the First Aid app developed by the British Red Cross and adapted by the American Red Cross.

33 million: Number of coconut trees destroyed or damaged by Typhoon Haiyan in coastal Philippines.

Sources : IFRC, ICRC, Syrian Arab Red Crescent

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Red Cross Red Crescent
P.O. Box 303, CH-1211 Geneva 19, Switzerland
E-mail: rcrc@ifrc.org ISSN No. 1019-9349

Editor
Malcolm Lucard

Production Officer
Paul Lemerise

Design
Baseline Arts Ltd, Oxford, UK

Layout
New Internationalist, Oxford, UK

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On the cover: The scenario could be taken from a science-fiction fantasy novel. But many experts say that robotics and weapons technology being developed today suggest that the notion of robotic soldiers will not seem so far-fetched in coming decades. Illustration by Pat Masioni

Photos this page, from top: REUTERS/Jason Reed; REUTERS/Fabrizio Bensch; Pat Masioni; Louise M. Cooper/Australian Red Cross; Riccardo Gangale/IFRC

Programmed for war

Automated and robotic weapons are just one example of how technology is changing the way war is being waged. Are humanitarians and the rules of war keeping up?

IN MAY 2013, A BAT-WINGED, unmanned craft the size of a standard fighter jet made its first flight from the deck of the aircraft carrier USS *George H.W. Bush*, just off the coast of the United States near Washington DC.

Known as the X-47B, the drone's large size allows it to fly a much longer range than the better-known Predator drones now in use, and its ability to take off from a ship means it can be used almost anywhere in the world.

But there was something else that made the flight unique, even historic. The X-47B, according to the United States Navy, is designed so that it "can be programmed to carry out missions with no human intervention". Unlike the drones currently in use, this weapon can be automated. In essence, it's a robot with wings, guns and bombs.

"This is the way of the future," United States Navy Rear admiral Mat Winter was quoted as saying by the Associated Press.

The experimental British-made Taranis stealth fighter drone taxies on a runway during tests in England in 2013. The Taranis will be programmed to be able to evade attack and select targets but the manufacturer and the British government insist the Taranis is designed to be flown by human operators and that targets will always be verified by the human operator before any attack is launched. Photo: Ray Troll/BAE Systems

Weapons that function autonomously are not new. Landmines (far left) function without human intervention while more sophisticated machine gun systems (second from left), used to guard border areas or sensitive facilities, can locate targets and fire without direct human control. Defensive missile systems (middle) are automated to make high-speed targeting decisions. Weapons being developed today take many forms. The US Navy's X-47B pilotless, stealth combat aircraft (second from right) is able to carry out pre-programmed missions, while experts say insect-sized 'nano-drones' (right) could be programmed to carry out missions and react to conditions that arise in the field. Photos, left to right: REUTERS/Nita Bhallia; REUTERS/Pichi Chuang; REUTERS/Darren Whiteside; REUTERS/Rich-Joseph Facun; REUTERS/Skip Peterson

And the X-47B is not the only weapon on the drawing board. Numerous countries, with large and small militaries, are developing similar flying weapons systems that can be controlled remotely (similar to the drones currently in use) but that can also function autonomously.

High-speed conflict

From the military point of view, there are many advantages. Fighter drones could fly into defended airspace without putting pilots at risk and could manoeuvre more quickly, taking sharp turns that would injure or kill a human pilot. They can fly faster, longer and higher than traditional fighter jets and those that are pre-programmed, or automated, would be able to continue a mission even if communication between the drone and the command centre is interrupted.

Meanwhile, a similar revolution is taking place on the ground. In the last 15 years, thousands of robots have been deployed in conflicts such as Iraq and Afghanistan. Most have been used to detonate improvised explosive devices but in 2007, a robot modified to carry weapons was tested in Iraq.

Since then, China, Israel and Russia have also developed weaponized ground robot systems and other countries are following suit. They come in all shapes and sizes: some are only slightly larger than a remote-control toy, others are the size of large trucks. Usually fitted with tank-like treads or large wheels, many feature arms capable of simple tasks, manoeuvrable video cameras, infrared or night vision capabilities and weapons.

Their missions are manifold. They can enter buildings or territory occupied by enemy combatants, for reconnaissance or attack, and most of these systems are operated by remote control. In time, experts predict, ground robots could also be programmed for autonomous missions.

According to many experts, the advances being made today in artificial intelligence represent a quantum leap in warfare technology, similar to the advent of aviation in the first half of the 20th century. But this time, it's not only countries with large militaries involved.

"Today we are definitely seeing a wide range of actors with access to new advanced technology, particularly as it becomes cheaper and simpler to use," writes Peter W. Singer, director of the Center for

21st Century Security and Intelligence at the Brookings Institution in Washington DC, in a recent issue of the *International Review of the Red Cross*.

"When the point is reached where a microdrone can be flown using an iPhone application — which is possible now — then suddenly a lot of people can use it," says Singer, who is also the author of *Wired for War: The Robotics Revolution and Conflict in the 21st Century*.

Mechanized distinction

All this has serious implications for the way conflicts and the international balance of power may evolve. Some, such as UK-based computer scientist and robotics expert Noel Sharkey, worry that we are at the cusp of a new kind of arms race in which the weapons in question are relatively small, cheap, easy to produce but extremely difficult to regulate. "Everybody will have this technology," says Sharkey, noting that robotics technology is being driven as much by consumer and industrial markets as by military budgets.

This is why Sharkey is opposed to weapons systems that are not under human control at all times and he feels new treaty law in the best way to ensure that. Several states have issued policy statements saying humans will always be in the loop when weapons capable of autonomous action are deployed. "But what does that mean?" asks Sharkey. "Does that mean someone pressing a button and after that the machine takes over?"

Fundamentally, Sharkey contends, it's not a legal question, but one about our essential humanity. "We cannot delegate the decision to kill to a machine. It's the ultimate indignity to have a machine decide to kill you."

For humanitarians, robotic, automated or fully autonomous weapon systems also poses serious questions: As more of the targeting and firing functions of these machines are automated, will these highly efficient killing machines be able to make the necessary distinctions between combatants and military targets on the one hand and civilians on the other?

Will these highly efficient killing machines be able to make the necessary distinctions between combatants and military targets on the one hand and civilians on the other?

An American soldier looks at an armed, robotic vehicle known as MAARS, or Modular Advanced Armed Robotic System, at a military exposition at a United States Marine base in California, USA in 2012. Photo: REUTERS/Mike Blake

If, as some predict, automated, hypersonic warplanes dramatically speed up the pace of conflict, will humans be able to make sound decisions about targeting and protecting civilians given the lightning-fast pace of next-generation combat? Or will those decisions also become automated?

And if an autonomous or automated weapon does commit a violation of the rules of war who will be held responsible? The commander who sent the drone or robot into battle or the manufacturer of the software that runs the robot?

These questions are being hotly debated in academic, military and peace advocacy circles. While some are calling for regulation, new treaty law and even moratoriums and bans on such weapons, the ICRC is calling on states to live up to their obligations under the Geneva Conventions and their Additional Protocols to ensure all new weapons systems would comply with international humanitarian law (IHL) before they are developed and deployed.

There are already many legal, moral and political questions revolving around drones in use today, most notably, by the United States to carry out strikes in Afghanistan, Pakistan and Yemen. But most of the questions concerning IHL and current drone missions have to do with the way those weapons are used, not the technology itself. The key element being that today, human beings are still in active control of the drones during their missions, albeit from a location far from the battlefield.

With autonomous weapons, the legal equation has shifted and debate is more closely centred on the technology and its capabilities. "Such a weapon would have to be able to distinguish not only between combatants and civilians, but also, for instance, between active combatants and those *hors de combat*, and between civilians taking a direct part in hostilities and armed civilians such as law enforcement personnel or hunters," according to the ICRC.

An autonomous weapon would also have to comply with the rule of proportionality, which requires that the incidental civilian casualties expected from an attack on a military target not be excessive when weighed against the anticipated concrete and direct military advantage. And when attacking, it would have to be capable of taking precautions to minimize civilian casualties.

For Sharkey, the technology that would allow computers to make such distinctions and precautions is still far from reality. "If you had a perfectly clear environment, such as an open desert with a tank in it, you might be able to get it to distinguish the shape of the tank and attack it," he says.

But even in modestly complex environments, such as a village centre or residential street, computers

are simply not able to distinguish between multiple, changing shapes in a landscape cluttered with buildings, cars, trees and people, he says.

With weapons systems that are automated or semi-autonomous (i.e. programmed to carry out a series of specific, pre-programmed attacks) the questions are different. In this case, a human has made the targeting decisions. But what if the situation changes — a school bus suddenly pulls in front of the target once the mission is launched? The systems might allow for a human over-ride but if communication with the weapon is jammed by enemy forces (a normal occurrence in warfare) there would be no turning back.

Some IHL experts, however, counter that such circumstances can already arise with some non-autonomous weapons already in use. When a long-range cruise missile is fired, for example, the situation on the ground may change dramatically between the time the missile is launched and the time it strikes its target.

Loss of humanity?

Indeed, not all experts on robotics and IHL are convinced that automation or autonomy in weapons systems always contradict humanitarian values. As artificial intelligence improves, some contend that a robot could theoretically be programmed to behave — in a sense — more humanely than humans, particularly in high-stress, emotionally charged battlefield environments.

As this level of automation is still the stuff of science fantasy, a more concrete and immediate example are defensive missile systems, already in use to identify, target and shoot down incoming missiles at speeds beyond the capability of human operators. Would it be fair, some experts ask, to prevent a state from using automation to defend people from a barrage of incoming rockets?

The chicken and the egg

In practical terms, however, it's not likely that states will agree on treaty law regulating this emerging technology any time soon, says William Boothby, an expert on the process of state reviews of new weapons vis-à-vis international humanitarian law.

One reason is that militaries are generally not inclined to reveal their true technological capability in order to keep the upper hand in future conflict. 'Part of a perceived advantage ebbs away if others become aware of the weapon and the way it works,' notes Boothby, author of the recently published book Conflict Law, the influence of new weapons technology, human rights and emerging actors.

'So it's a chicken-and-egg scenario,' he adds. 'Which states are going to legislate something the characteristics of which we don't yet know? It's difficult to evaluate the risks and opportunities associated with something that has not achieved a certain level of maturity."

Stealth fighter drones have been under development for many years by numerous countries. Here a cameraman films a model of a proposed Chinese unmanned combat aerial vehicle, nicknamed 'Anjian' or 'DarkSword'.
Photo: REUTERS/Bobby Yip

To Boothby, this is why it's critical that states enhance their capacity to conduct legal reviews of each and every new weapons systems as already called for by treaty. "Of the 170 or so states that are treaty bound to conduct new weapons reviews, only about a dozen are known to have a regular process for systematically doing so,'' he says. Boothby acknowledges that even when reviews are undertaken this system is not perfect, notably that it's the states themselves that evaluate their own weapons systems. But he argues it's an important and necessary step.

Whatever one's position on robotic weapons, greater attention from the humanitarian sector is overdue, argues weapons expert Peter Singer, adding that when he first started talking with humanitarian organizations about new technology, "none of them [was] ready or willing to talk about technologies like the Predator" drone.

"The same phenomenon is playing out right now with the current development of technology," he argues in his recent Review article. "The humanitarian community is ex post facto reacting to things that already exist and are being used. And thus its impact will be less because the community did not weigh in until it was already behind the curve."

One reason may be that humanitarian organizations have remained extremely busy contending with current-day atrocities and violations, many committed with low-tech, conventional weapons — from machetes to automatic rifles. On a deeper level, as Singer notes, all this poses questions that go beyond international humanitarian law: "The bottom-line question is, is it our machines that are wired for war, or is it us humans that are actually the ones wired for war?" ■

By **Malcolm Lucard**
Malcolm Lucard is editor of *Red Cross Red Crescent* magazine.

150 years of humanitarian action

As the first Geneva Convention turns 150 years old this year, *RCRC* magazine explores the future of international humanitarian law and the implications that new weapons and aid technology will have on humanitarian action and the rules of war.

"Hello, my name is Bot and I'm here to help."

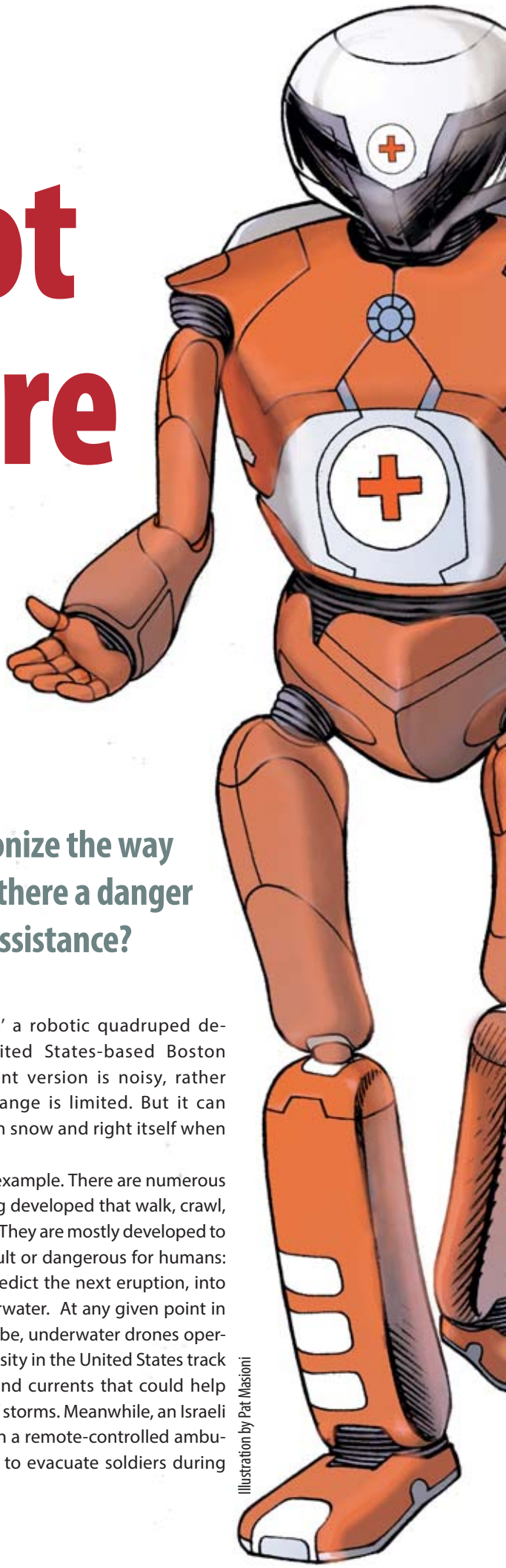


Illustration by Pat Masioni

Some say 'bots without borders' will revolutionize the way humanitarian assistance is delivered. If so, is there a danger of taking the 'human' out of 'humanitarian' assistance?

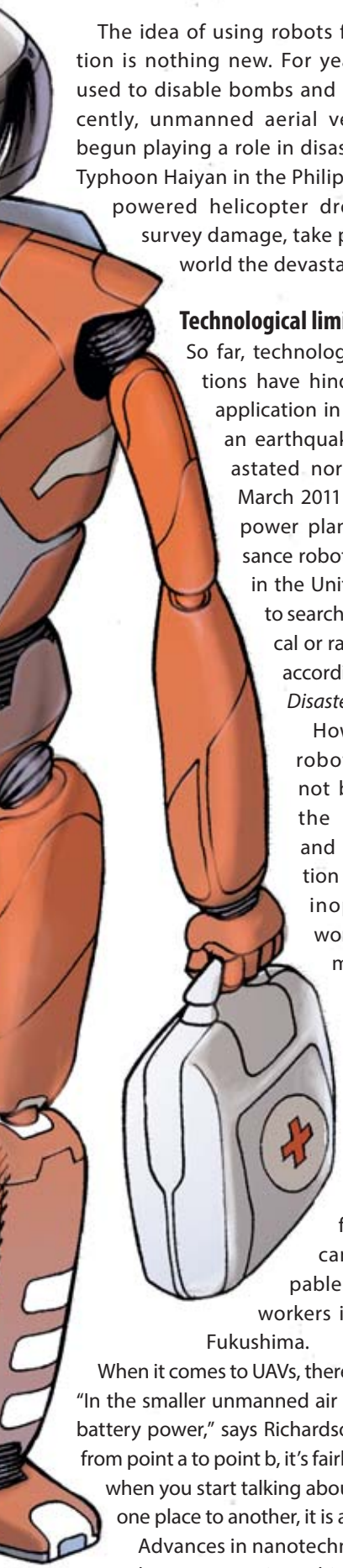
Imagine there's been an earthquake in a remote mountain village. The roads are washed out and the only way to bring in supplies is by foot over a treacherous mountain pass. Then imagine you've got an assistant: a robotic quadruped the size of a large dog, capable of navigating uneven ground and able to help carry supplies.

To many humanitarians, the idea that robots will play a significant role in emergency response may seem a bit far-fetched, an idea more suited to science-fiction fantasy than humanitarian realities.

But there are some who see a promising future for robotic humanitarian machines. And it may not be that far away. "Perhaps even within the next 20 years," says Robert Richardson, a robotics expert with the University of Manchester in the United Kingdom, "we might see systems that, while not replacing humans, can act as a sidekicks during a humanitarian response."

Consider 'Big Dog,' a robotic quadruped developed by the United States-based Boston Dynamics. The current version is noisy, rather frightening and its range is limited. But it can march up steep hills in snow and right itself when pushed over.

And this is just one example. There are numerous robotic creatures being developed that walk, crawl, roll, fly and even swim. They are mostly developed to go to places too difficult or dangerous for humans: inside volcanoes to predict the next eruption, into combat or deep underwater. At any given point in oceans around the globe, underwater drones operated by Rutgers University in the United States track ocean temperatures and currents that could help predict the intensity of storms. Meanwhile, an Israeli company is working on a remote-controlled ambulance drone designed to evacuate soldiers during heavy fighting.



The idea of using robots for humanitarian action is nothing new. For years, they have been used to disable bombs and landmines. More recently, unmanned aerial vehicles (UAVs) have begun playing a role in disaster recovery. During Typhoon Haiyan in the Philippines, small battery-powered helicopter drones were used to survey damage, take photos and show the world the devastation.

Technological limits

So far, technological and cost limitations have hindered their practical application in disaster zones. After an earthquake and tsunami devastated north-eastern Japan in March 2011 and led to a nuclear power plant failure, reconnaissance robots made in Japan and in the United States were used to search for chemical, biological or radiological anomalies, according to the IFRC's *World Disasters Report 2013*.

However, many of the robots deployed could not be used for long, as the amount of debris and high levels of radiation soon rendered them inoperable. Japan is working on the development of tough, mobile biped robots that can tolerate such inhospitable environments while a United States military research agency has offered a US$ 2 million prize for companies that can build a robot capable of replacing rescue workers in situations such as Fukushima.

When it comes to UAVs, there are other limitations. "In the smaller unmanned air vehicles, it's all about battery power," says Richardson. "In terms of flying from point a to point b, it's fairly straightforward. But when you start talking about taking objects from one place to another, it is a different story."

Advances in nanotechnology are helping to make cameras, micro-chips and circuits smaller and smaller. But for the moment, potentially useful tools such as infrared sensors or night vision are not practical because of their size, weight and cost.

Most likely, experts say, it will be consumer markets such as the toy industry that will bring costs down via mass production. When and if technological and cost barriers are breached, the advantages to humanitarians could be immense, proponents argue. Robotic devices could work tirelessly without sleep, lift heavy weights or withstand high temperatures.

Meanwhile, advances in artificial intelligence, a computer's ability to 'think' and 'see' (to identify objects and understand their environment) have led to cars that drive themselves, 'ag-robots' able to harvest crops, and even have a more human touch. In Japan, a pioneer of industrial robotics, 'caring' robots also help elderly or sick people lie down or get out of bed — and even provide emotional comfort.

Bots without borders

But robots also raise serious questions for humanitarians. If robots or drones are sent to conduct assessments or deliver aid in places that are too dangerous for humanitarian workers, could that undermine the notion that real flesh-and-blood humanitarian workers should be able to safely access people in need?

And how will these robots affect the decisions made by the humans who control them? Drones and robots may allow humanitarians to see further and do more, but could they also lead to excessive use of remote-control action, in which a drone over-flight takes the place of direct, human intervention?

And will people accept and trust the help brought by drones or robotic devices, especially if it's unclear who is operating these devices? In conflict zones, might the use of drones by humanitarian workers lead to suspicion if military surveillance and even armed drone attacks are taking place in the same areas and already causing psychological tension?

Given these questions, it's understandable that many humanitarians are wary. But Patrick Meier, a leading analyst of humanitarian technologies, says perceptions about drones may change in time. "UAVs, or drones, have a very strong military connotation for many of us," he notes. "But so did space satellites before Google Earth brought satellite imagery into our homes."

Richardson agrees. "If you were to go into some humanitarian hotspot now with robots following you, it would seem very odd," he says. "But once they are seen more widely, once you have more civilian drones doing things like crop inspection and various other tasks, then it will be more acceptable… but of course it depends on the environment you are going into." ■

"If you were to go into some humanitarian hotspot now with robots following you, it would seem very odd. But once they are seen more widely, once you have more civilian drones doing things like crop inspection and various other tasks, then it will be more acceptable."

Robert Richardson, robotics expert.

Web extra

Many aspects of robotic, remote-control and automation technology are not yet affordable or practical for humanitarians. But there are exceptions. An automated phone service launched by the Haiti Red Cross Society, with support from IFRC, allows callers to get information on topics ranging from cholera prevention to hurricane preparedness. The service also can get feedback from callers and conduct surveys. Find out more at **www.redcross.int**.

Digital witnesses

Digital mapping is now an integral part of emergency response. Can internet-based digital crisis maps also help to document or even prevent war crimes?

As the political uprising in Syria escalated towards conflict in 2011, a group of internet activists and volunteers calling themselves 'Humanitarian Tracker' created the digital crisis map site called 'Syria Tracker'. Based on a platform developed by the crisis-mapping pioneers Ushahidi, the Syria map charts the location of violent events and allows viewers to read first-hand accounts and watch videos of incidents uploaded by witnesses in the field.

Culled from Twitter feeds, Facebook postings, e-mails and other first-hand sources, the reports tell of gun-fights, attacks on civilians, arrests, air raids, bombings, executions and the destruction of religious centres — some of which may be violations of international humanitarian law. Could this kind of first-hand, digital reporting create a public record that might ultimately discourage violations of the rules of war? To learn more, *Red Cross Red Crescent* magazine spoke with Hend Alhinnawi, one of the co-founders of Humanitarian Tracker.

Hend Alhinnawi: We're talking about very simple technology here. If you have access to a cell phone and the internet, you can report what is happening to you. And that's a very powerful tool because now, the power is back with the people on the ground.

RCRC* magazine: *Where do the reports come from?
About 93,000 people have filed reports that we have published. Each one of those 93,000 is a person who has been verified. However, we've only published about 6 per cent of the reports we've received over the last three years. We are very conservative in terms of what we publish because we'd rather grossly underestimate than publish things we can't verify.

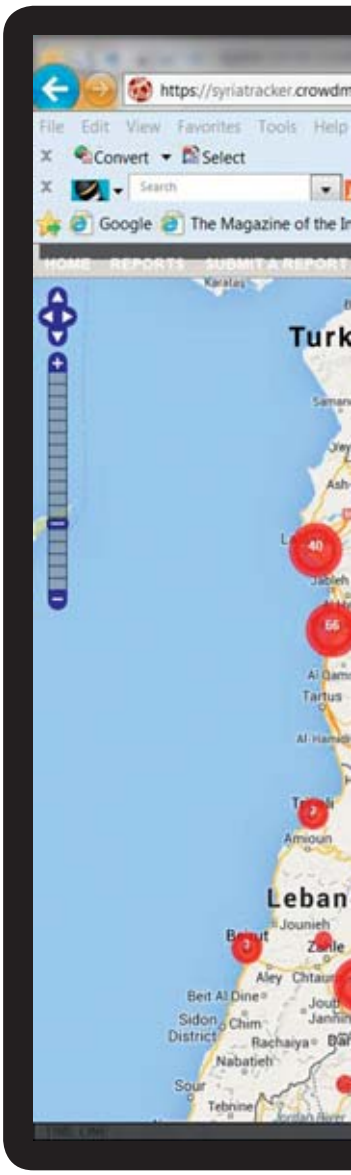
In addition, we have mined information from more than 50,000 news reports — from official media sources, as well as blogs and social media — so that people coming to the website can have a holistic view of what is happening on the ground. We have also established partnerships and trusted relationships with people we've worked with over the past three years. When we get reports from them, we know they are accurate. But we corroborate these reports with other sources as well.

In the meantime, the reporting has also gotten better. People are sending videos or photos that include much more information that helps us verify the report. Sometimes, they include a landmark to verify the location or a photo that shows this is the person who been killed, his name, etc. Usually, the victim's age is the hardest thing to verify.

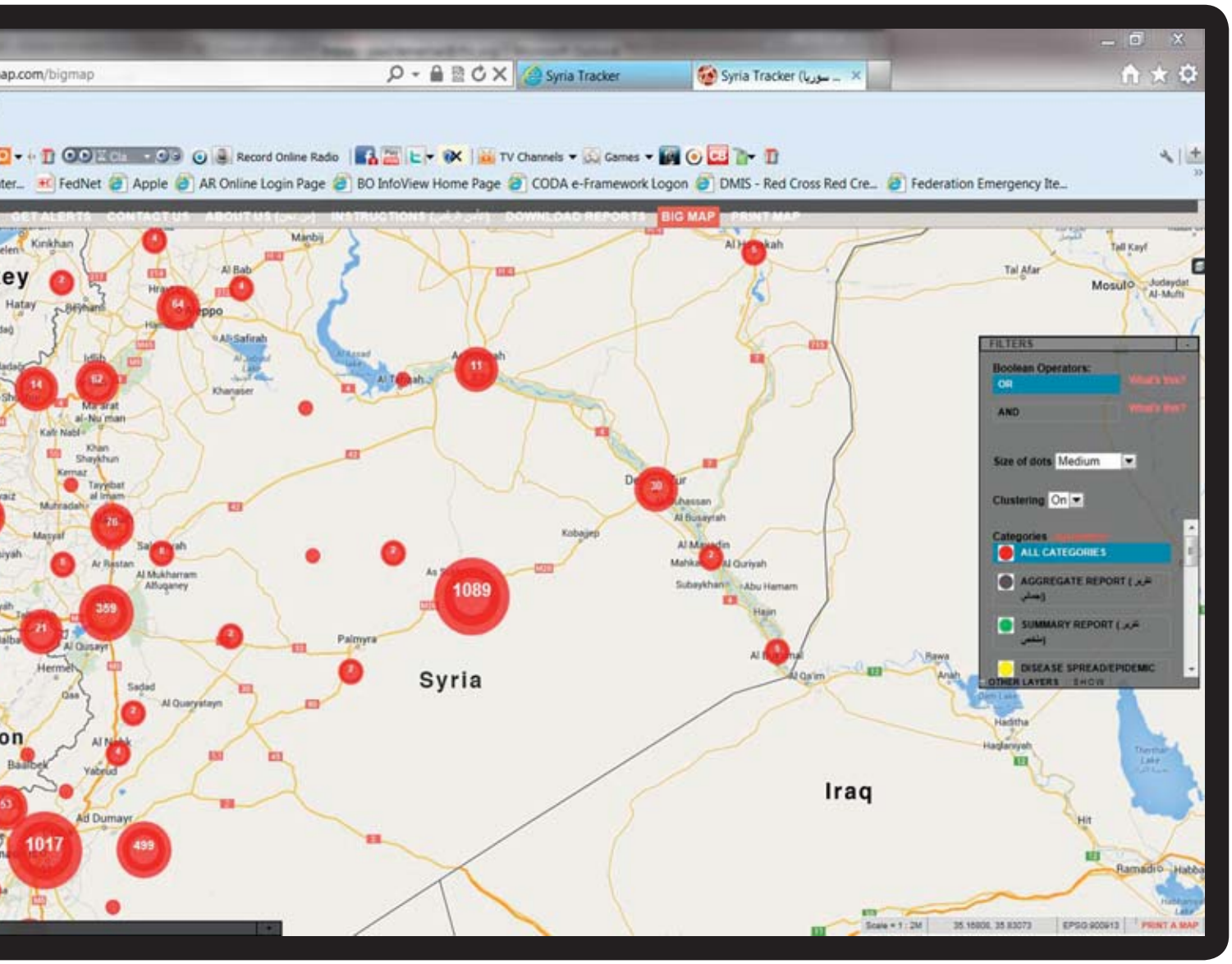
How do you maintain credibility with all sources in a conflict that is so polarized?
Humanitarian Tracker has no political or religious affiliation. The cause is purely humanitarian. The goal is simply to make sure that no victim and no crime goes unrecognized. We maintain that this website is not a place for a political discussion.

But how can you ensure that digital crisis maps do not become another battlefield in a propaganda war?
The whole point of the forum is that anybody can submit a report. You could be government affiliated or you could be an average citizen. You have a voice and you have the ability to submit a report about what is happening to you.

It's true that the overwhelming majority of reports we get tend to be from one side. But we were one of the few who published reports about allega-



This online, interactive map from the Syria Tracker website allows viewers to select the kind of data they are looking for, then get more detail by clicking on the coloured dots. The numbers inside the dots indicate the quantity of reports received from a given geographic area. Other features allow to viewers to categorize deaths and violent incidents by gender and age of victims, location and cause of injury, among other variables.
Image courtesy of HumanitarianTracker.org



tions of rape, a series of attacks on women, by the Free Syrian Army. The decision to publish these reports was unpopular. People asked us, "Why are you taking sides?" But the whole point of Syria Tracker is that we don't take sides. If these people are committing crimes, we want to make sure it is documented.

Do you have any sense of whether or not the reporting you are doing has an effect on the behaviour of combatants?

We hope so. But I'm not really sure that a report might prevent something on the ground. But if that information was brought to an organization that is responsible for bringing people who've committed war crimes to justice, then those reports become very valuable. There is evidence to bring people to justice on both sides. So perhaps accountability later on could be a deterrent.

Have you had any interest from organizations which want to look at the data for evidence of war crimes?

Yes. If there is a crime and we are able to verify it, we have an interest in the people who are responsible being brought to justice. But our main job is just to make sure the data are available to the public, whether it's a humanitarian group that wants to know where there is the most need or someone who wants to know more about a massacre that has taken place.

Can this kind of platform also play a role in protecting civilian populations?

Definitely. For example, we talked to one organization that is interested in setting up a rape shelter in an area where there were definitive cases of targeted rape. So Syria Tracker is taking the information we have been given and other organizations are able to pinpoint the information and take it from there. ■

"Humanitarian Tracker has no political or religious affiliation. The cause is purely humanitarian. The goal is simply to make sure that no victim and no crime goes unrecognized."

Hend Alhinnawi, co-founder of Humanitarian Tracker.

Web extra

Jen Ziemke, co-founder of the International Network of Crisis Mappers, writes about how crisis maps can help humanitarian agencies protect civilians by analysing patterns of violence within the conflict. See **www.redcross.int**.

Does virtual war need rules too?

YOU'RE IN AN ABANDONED warehouse that's been battered by gunfire. As part of a top-secret military operations team, you are interrogating a captured enemy who doesn't want to talk. So you take some shards of glass from a broken window and insert them in the captive's mouth.

This brutal scenario is in fact a sequence in *Call of Duty: Black Ops*, a video game that depicts clandestine operations of a secret, and entirely fictional, special forces team. In order to advance in the game, the player is compelled to give a command to the computer or play station to hit the detainee in the face.

This is just one example of how today's first-person shooter video games put the player in the midst of a virtual, visually realistic and often extremely brutal war scenario. It also shows how many of these games contain scenes that violate the most basic rules or war.

Because millions of people play these video games every day, some worry that the games are influencing users' perceptions about what soldiers are permitted to do during war. "There is no way that people who play these games for a couple of hours every day will not be affected by that experience," says François Sénéchaud, a Swiss military reserve officer who now acts as ICRC liaison with armed forces.

"They are repeating the same actions. This is something the military calls 'the drill'. This is how you instil a reflex in people."

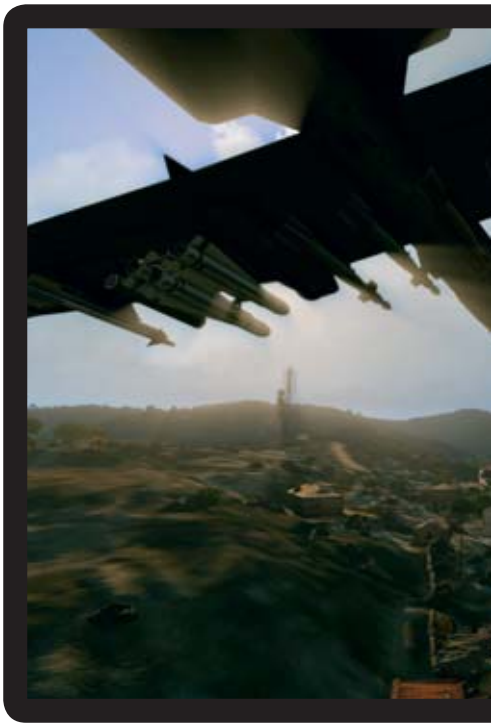
Several studies in recent years have also found numerous virtual violations of international humanitarian law (IHL) including the destruction of civilian property and intentionally directing attacks against civilians, among other examples. Several games also allow players to shoot injured soldiers who are *hors de combat*. Some games even included firing on medical units bearing the Red Cross, Red Crescent or Red Crystal emblem.

Rules of engagement

Even so, Sénéchaud insists the ICRC is not seeking to censor violent video games. Rather, the organization is proposing that video game manufacturers voluntarily integrate IHL into the games themselves.

"Through these games, we are addressing the future combatants, the future law-makers, the decision-makers and also the people on contemporary battlefields."

François Sénéchaud, ICRC.



Sénéchaud argues that would make the games more interesting and realistic, and also encourage awareness and potentially better behaviour if those players ever become soldiers.

After all, many of these games are also used by military units for training and even as recruitment tools. "Through those games, we are addressing the future combatants, the future law-makers, the decision-makers and also the people on contemporary battlefields," he says.

Several video game manufacturers are already on board. Marek Spanel, head of Bohemia Interactive, says his company's game, Arma 3, aims to be "an authentic military experience on the computer", one reason the games are used by numerous military organizations (for example, Australia and NATO countries including the United Kingdom and the United States) as "a very efficient method of training people".

"When we realized there were players who fired at anything that moved, we felt this was just not right," says Spanel. He adds that the Bohemia Interactive team introduced mechanisms to 'punish' players who kill non-combatants or 'friendlies' from their own ranks.

Hearts and minds

Not all gamers are convinced however. When the ICRC first began talking about war crimes and video games in 2011, there was an immediate backlash. Many mistakenly believed that the ICRC was pushing for 'real-world' prosecution of players based on their actions within the game.

"You'd think they'd have better things to do than determine whether or not shooting pixels with other pixels is a violation [of IHL]," one commentator wrote in the gaming blog Polygon.

Since then, the debate has evolved. After the ICRC clarified that it is not trying to censor games, just encourage more realistic consequences for war crimes, debate on gaming blogs took a more positive tone.

"It's heartening to see that instead of demonizing video games, they are trying to improve games and use them for good," wrote one.

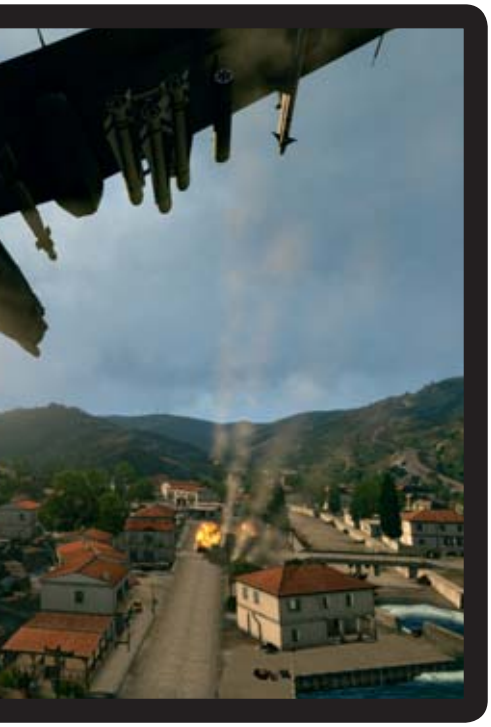
"I'm looking forward to modern warfare [first-person shooter games] that will allow [taking] prisoners, mak[ing] moral choices, etc., instead of systematically ravag[ing] everything," wrote another.

But still not all are convinced. "I can see their point of view and it could certainly lead to some interesting game mechanics and storytelling,'' one gamer wrote. "Then again, video games are meant to be fun and offer an escape from reality. Having my character put in the brig [prison] half way into the mission because I accidentally clipped a civilian hit box, or the enemy was hidden in a room full of civilians, doesn't sound like fun."

While games are meant to be fun, war is deadly serious. As training for war — and even war itself — becomes increasingly virtual, some argue that it's time to begin thinking about how humanitarian law applies in the virtual war-fighting environment. That's why, according to the ICRC, states must at the very least make sure their virtual training and recruitment tools "do not permit or encourage any unlawful behaviour without proper sanctions" lest they too become implicated if war crimes are committed by soldiers trained on something developed for people just trying to have fun. ■

Web extra

In collaboration with 11 National Societies, US-based video game maker Electronic Arts Inc. has built Red Cross emergency response directly into its urban planning game SimCity, allowing players to purchase, download and deploy a Red Cross relief centre, as well as tents and vehicles. For more, see **www.redcross.int**.



Images from Arma 3, a highly realistic first-person shooter video game used by some government armed services for training purposes. The game's producer, Bohemia Interactive, based in the Czech Republic, is among several companies that have integrated elements of international humanitarian law into its first-person shooter video games.
Images: Bohemia Interactive

Humanitarian action 2064

To mark the 150th anniversary of the first Geneva Convention of 1864, we asked artist Pat Masioni to envision how the rules of war might apply in the year 2064, when the convention will mark its 200th anniversary.

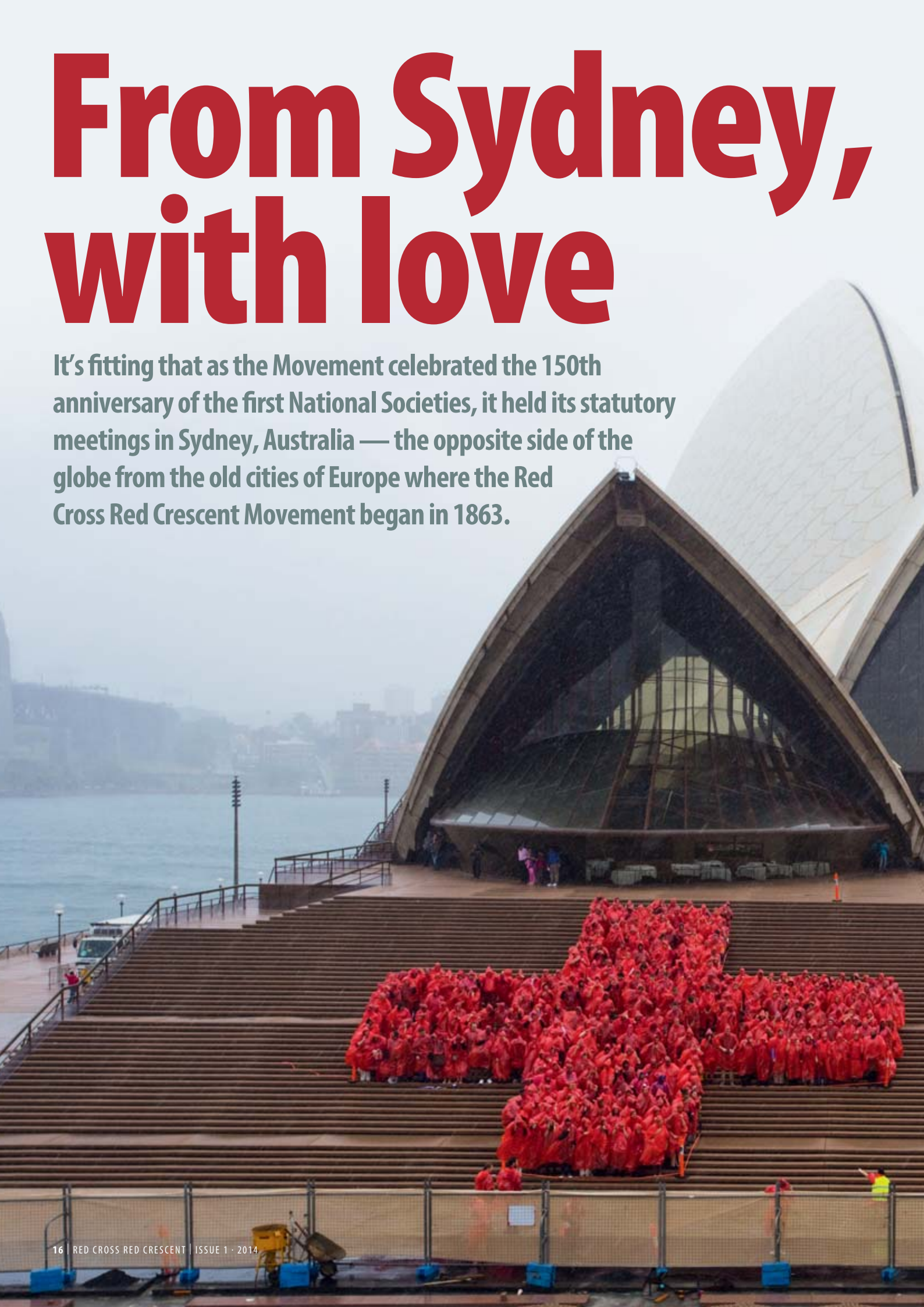
Pat Masioni

TO BE CONTINUED...

Pat Masioni is a Congolese illustrator of graphic novels, including a series about the Rwandan genocide and another about conflict in the Democratic Republic of the Congo. For more information, see **www.redcross.int**.

From Sydney, with love

It's fitting that as the Movement celebrated the 150th anniversary of the first National Societies, it held its statutory meetings in Sydney, Australia — the opposite side of the globe from the old cities of Europe where the Red Cross Red Crescent Movement began in 1863.



It was a rainy, grey day in Sydney when Movement leaders, volunteers and supporters from around the world donned red rain ponchos and brought vivid colour to the steps of the Sydney Opera House, one of Australia's most iconic landmark structures, during the November 2013 Red Cross and Red Crescent statutory meetings.
Photo: Louise M. Cooper/Australian Red Cross

THE GATHERING WAS in many ways a reflection of how far the Movement has come; in geographic, cultural and technical terms, but also in terms of the complex humanitarian crises and issues the Movement seeks to address in the 21st century.

Hosted by the Australian Red Cross, a very tech- and media-savvy National Society with robust domestic and international operations, the gathering gave the 1,000-plus delegates who attended a chance to learn about the specific issues at play in Australia and the region.

"On behalf of the Gadigal, I welcome you," aboriginal elder Allen Madden told delegates as he kicked off the grand opening ceremony. The Gadigal were the original people who lived in the area around Sydney, Madden explained, as the welcome continued with the warm, pulsing rhythm of the didgeridoo and a ceremony in which smoke from particular plants is used to purify or prepare a space for important activities or gatherings.

Meanwhile, the strong representation of Pacific island nations was a reminder that climate change — a central humanitarian challenge for coming decades — will directly affect the future of many nearby cultures. The effect of climate change on the severity of storms was also brought home forcefully by the landfall of Typhoon Haiyan in the Philippines, just as delegates from National Societies around the world made their way to Sydney.

The response to the typhoon became a defining theme of the conference with many of the topics addressed in workshops — humanitarian diplomacy, Movement coordination, beneficiary communications, appeals for funding — playing out in real time as teams from the IFRC, the ICRC and numerous National Societies organ-

ized relief operations, held press conferences and launched appeals.

Similarly, the ongoing conflict in Syria, where the Syrian Arab Red Crescent is a playing a key humanitarian role (with ICRC and IFRC support), was another central theme in press conferences and public appeals for protection and support of humanitarian relief efforts.

The meetings were also a chance to tackle some thorny internal issues, such as cooperation between the IFRC, National Societies and the ICRC, as well as some critical future external challenges, from automated weaponry to nuclear weapons or the diminishing respect for humanitarian workers in many contexts.

The Movement also welcomed two new National Societies (Cyprus and South Sudan) with official admission to the IFRC. The Sydney meetings also marked the first time that the Global Youth Summit was held just before the General Assembly, a deliberate move by organizers to bring the energy and momentum of young people in the decision-making process, according to Ashanta Osborne Moses, chair of the IFRC's Global Youth Commission. "We are only achieving a small portion of what we have the potential to do because our young people have not been fully part of the decision-making process," she said.

Your 'stitch' in the development 'tapestry'

The post-Millennium Development Goals (MDG) agenda was another central, forward-looking theme**.** Given that key promises made as part of the United Nations (UN) 2015 MDG (eradicating extreme poverty, providing universal access to clean water and health care) will not be met before next year's deadline, how can the Movement help turn things around?

Amina Mohammed, UN special adviser on post-2015 development planning, challenged National Societies to help set the agenda. "We want a development agenda that we all recognize as our own, in which you see your stitch in the tapestry of the post-2015 MDG agenda," she told the gathering. "What we don't want is an agenda that's carried from New York to the countries and then we spend the next five years trying to implement it."

Many National Society leaders, such as Anselme Katiyunguruza, secretary general of the Burundi Red Cross, responded by saying that building and sustaining local volunteer networks is a crucial step. "If we want to meet important development goals, we need to transform vulnerable people into people who are empowered to help others," he said. ■

By **Malcolm Lucard**

Malcolm Lucard is editor of *Red Cross Red Crescent* magazine.

Voices from Sydney

The meetings in Sydney were marked by many passionate speakers who addressed issues that will occupy the Movement in coming years. Here are just a few.

Nuclear weapons

Charlotte Nordström, volunteer coordinator for the Norwegian Red Cross. From her statement to the Council of Delegates in support of a resolution calling for the elimination of nuclear weapons.

I grew up after the Cold War. The arguments defending the existence of nuclear weapons are therefore difficult for me to understand. But the scale of human suffering that they cause has never been clearer. That's why exactly one year ago, the Red Cross youth in Norway took to the streets to collect support for our cause and we did it with great success.

I believe we can help break the deadlocks that have persisted for far too long in nuclear disarmament discussions. Prevention is the only viable option. We will not live under the threat that could destroy all life on our planet — and we will not leave this work to others.

Humanitarian targets

Fiona Terry, humanitarian and author, speaking at the Humanitarian Forum, a platform for debate of humanitarian issues before the opening of the statutory meetings, on the increased targeting of humanitarian workers.

Twenty-one years ago I boarded a cargo plane from Melbourne headed for Somalia. I landed in the epicentre of a famine. What we saw there was unimaginable. I was absolutely not prepared. And we had to do horrible things, like decide who would have access to feeding centres because we didn't have enough food for everybody. And the reason we didn't have enough food was because our humanitarian supplies were being stolen by armed militias. Confronted with that, we had to do as we could. Then we realized that the only way we could possibly bring food in — because there were about 200 people dying per day — was to hire 'technicals', which were these pickup trucks with machine guns mounted on the back, so they would protect the food and provide some security.

The ethical dilemmas this raised — paying armed security to protect us and deliver humanitarian aid over the barrel of a gun — was unimaginable. I had worked in northern Iraq and we had nothing like that. And we honestly thought that there could never be a situation as difficult as that which we faced in 1992 and 1993 in Somalia. But we were wrong. Because two decades later I'm back working in Somalia and I am not even able to go back to places where we went behind these 'technicals' 20 years ago.

Yes, we have become as a humanitarian community a lot more risk averse. I don't think people would do today what we did then. But at the same time, we were not being targeted then as aid workers. We might be caught in the cross fire, but we were not killed back then or kidnapped for what we represented. This is the reality today.

Inclusion

Lucy Yaneth Murillo, volunteer and leader, Colombian Red Cross Society. Murillo became paraplegic after a plane accident three years ago. A volunteer before and after her accident, she says the Movement needs to see people with disabilities not just as beneficiaries, but as volunteers, employees and future leaders.

When you have an accident that limits your physical ability, then you feel like organizations such as the Red Cross are not the best organizations to volunteer for because of the kind of work that implies. And discrimination comes from everywhere, even from other volunteers. So it is necessary that people with disabilities find a way of saving lives from another angle. It's also necessary that the Movement makes the inclusion of people with disabilities an absolute priority.

Entrepreneurial spirit

Ben Huh, internet entrepreneur and CEO of the Cheeseburger Network. Huh describes himself as an internet entrepreneur who develops platforms that "help people make other people laugh".

At the macro level, we are moving away from a world defined by hierarchies to one of networks. And it's not that hierarchies will go away or that they are bad.

It's that opportunity for future progress lies more in the acceptance of networks of peers. It's no longer about power structures who say, 'you must do this, you must do that'. It's about organization of people whose collaborative methods of doing business are going to be far more profitable and far more effective over the long term.

Silos and open software

Juliana Rotich, executive director of Ushahidi, which develops free open-source software for use in crises around the world.

The thing to think about from a local level and from a global level is: are you operating in silos? What are the systems and processes to break down those silos so openness can be a guiding principle? Because that's how we can get back to principles of unity and universality. We are learning that closed systems don't give you as much impact and scale, and they are not the kind of invitation for participation and community as you get with the open-source ethos.

The humanitarian torch

Abdulrahman Attar, president of the Syrian Arab Red Crescent (SARC), accepting the Red Cross and Red Crescent Peace Prize for Peace and Humanity on behalf of his National Society and its volunteers.

Let me tell you what a SARC female volunteer said when she was asked what volunteering means to her. She said, 'My college closed its doors and I stopped teaching. I lost my job and my home. But I wanted to help my people and my country. I had nothing left but my soul, but I wanted to give it to SARC and the International Movement, which I truly believe in.' These are the principles of the SARC volunteers. Maybe we, the International Movement, can't solve the world's problems, but we can line up the solutions if we keep the humanitarian torch alight.

Critical mass

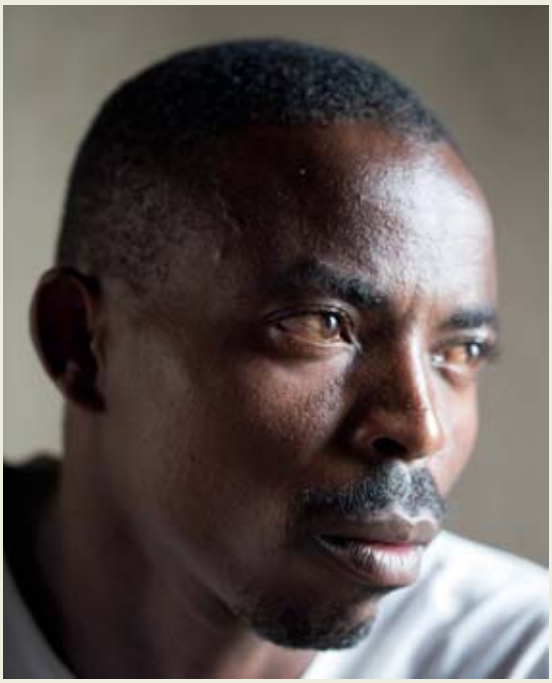
Cheryl Kernot, director of Australia's Centre for Social Impact. Kernot challenged the Movement and large humanitarian organizations to engage and partner with small innovative grass-roots organizations and social entrepreneurs.

There is a critical mass of young people who see the failure of big institutions and governments to address intractable social needs. That failure is a call to action for doing things differently. I want to ask you: does the way you are structured, the way you are governed, aid or assist the achievement of your mission? How quickly can you adapt to the cultural change that resides in the skills of young people and the fact that the IT [information technology] revolution has connected us more than ever with our brothers and sisters around the world? For me, [it's about] the capacity to build collaboration and partnership across sectors, because the question is what is the legacy of humanitarian assistance and aid going to be? Is it a short-term, quick-fix, move-on-to-the-next area of need? Or is it about leaving a lasting legacy of empowerment, economic self-sufficiency, etc.?

All photos: Australian Red Cross

Looking back, moving forward

"It is very difficult to move on, but I have to keep trying," says Beate Mukanguranga, who at 45 still struggles to heal the wounds caused by the genocide that devastated Rwanda in 1994. Mukanguranga survived the massacres that went on for almost 100 days, but like many Rwandan women, she suffered multiple sexual assaults. Her daunting and contradictory challenge of moving on yet not forgetting what happened two decades ago is shared by many of her fellow citizens. "We have to live together and forgive each other so we can build the nation together," says Ildephonse Karengera, a director at the National Commission for the Fight against Genocide. The country has progressed considerably since 1994, but the crisis is far from resolved. "The biggest humanitarian challenge now is not ethnic, but economic," adds Eric Ndibwami, 46, a Red Cross volunteer since 1991, referring to the country's chronic poverty. As Rwanda commemorates the 20th anniversary of the genocide that began on 7 April 1994, *Red Cross Red Crescent* magazine asked citizens and local Red Cross volunteers about their difficulties, hopes and aspirations. Texts by Anita Vizsy; photos by Juozas Cernius.



Suffering on all sides

Jean-Pierre Mugabo, 25, lost his mother during the violence in 1994, while his father died in prison after being implicated in the atrocities. Today, he makes a living from part-time jobs and lives in a house provided by the Rwandan Red Cross as part of a programme to help orphans and vulnerable children affected by the genocide. Now that the country is stable, he hopes that things will get better. "When the country is peaceful, the people are peaceful too and they can serve their country well," he says.

Speaking out for a brighter future

During the months of violence in 1994, thousands of women were subjected to sexual assault. Vestine Mukasekuru, 35, was one of them. Raped many times from the age of 15, she is now a mother of four children, two of whom were born as a result of sexual assault. The father of her first daughter was also the man who killed her entire family. "I knew him. He was my neighbour. Whenever he felt like it he came for me." The second child born after a sexual assault was due to a rape by a government soldier. Today, she belongs to an organization that helps rape victims and their children cope. As a result of counselling from this organization, she is able to discuss what she lived through. "It happened to most of us, but only few are able to speak out." Despite all her difficulties, including some initial discrimination within her community because she had a daughter of the 'enemy', she is positive: "I can see a brighter future. As a result of reconciliation, all things will be possible."

Hurt but not broken

When meeting 27-year-old Jacqueline Gatari Uwamariya, it's hard to imagine this bubbly, colourfully dressed woman — known to everyone as 'Shoushou' — survived unimaginable horrors when just a young girl. Her family was killed and her home burned to the ground when she was only 7 years old. Today, she is standing strong to demonstrate that what happened 20 years ago did not break her spirit. The Rwandan Red Cross provided her with housing and membership in an income-generating livestock cooperative. "The Red Cross gave me the foundations for living and I wanted to give back," she says. "So I became a volunteer." Later, she took a job at the Red Cross and now lives in a new home, one that she built from her own earnings.

A new family

"No one can help you but yourself," says 25-year-old university student Felix Uzabintywari, who lost his family during the genocide. Although the Rwandan Red Cross helped him gain a fresh start — paying his school fees, providing a home and some livestock — he knows he has to stand on his own two feet. "The Red Cross is my family. They've given me the chance for life." Now he says it's up to him to study hard and make the most of the opportunity. The task for Rwandans of all ethnicities, he adds, is to learn to see the common humanity in one another. "If we all have the same colour blood, how could we be different?"

Asking for forgiveness

Innocent Habyarimana, 55, is a father of three children and enjoys the quiet life of a farmer. During the genocide, he took part in the violence against the Tutsi population. Convicted for multiple murders, he spent nine years in prison. Today, he is full of regret and has asked his fellow community members for forgiveness. "I heal myself by making friends and helping the people I once harmed," Habyarimana says, adding that he will never again be led to believe that people are fundamentally different because of their ethnicity. "We are all the same, nobody can come back now and convince me otherwise."

Living on

"I can't preoccupy myself with pain, because then I would die tomorrow," says Esperance Mukandemezo, 62, with a smile. "I must be happy and live on." A Red Cross volunteer since 2006, she says the genocide has left her with a deep and inner urge to help others. Still, complete forgiveness is a daunting task. Mukandemezo herself watched her husband, mother and sisters being killed among many others. "It is difficult to live with people that you know did something bad," she says, adding that reconciliation is crucial. "We are all Rwandan, we must live together... Rwandans are sick. Both perpetrators and survivors. All feel pain. Some feel loss, some regret. We have to find the medicine for the illness and the only remedy is reconciliation."

To read more profiles and interviews with Rwandan Red Cross volunteers and leaders, as well as others involved in the nation's efforts towards reconciliation, see **www.redcross.int**.

Timeline of a tragedy

It was just another typical Saturday morning at Nairobi's popular Westgate shopping centre until members of a Somali militant group turned the mall into a scene of chaos, blood and fear. This is the minute-by-minute story of Kenya Red Cross Society staff and volunteers at the scene — and lessons and memories they will carry with them forever.

07:00: Saturday, 21 September 2013. Ambulance driver and paramedic Alvina Brauhauser arrives at Kenya Red Cross Society headquarters to start her weekend shift on ambulance dispatch duty. She begins by finalizing the deployment of 12 ambulances and staff. "Some were going to wedding parties and one was scheduled to go a children's cooking contest at the Westgate shopping centre," she recalls.

08:30: Red Cross paramedics Daniel 'Buda' Kamau and Mabel Nakweya radio in to say they are at the shopping centre setting up.

11:00: Nick Thou, emergency operation centre coordinator, arrives early for his midday shift.

11:40: The emergency phone — only used if an ambulance radio is not operational — flashes. The call is from Buda, and Alvina immediately calls him back. "He started whispering that there was shooting and that they couldn't find Mabel and he was hiding under a car," remembers Alvina. "I could hear shooting and kids screaming and I could tell from his voice he was getting desperate, which is not like him."

11:50: Emergency calls start coming in from people in and around the mall. They report gunshot wounds or people trapped inside the mall. "The phones were literally getting hot from all the calls," Alvina remembers.

"No one had yet been able to reach the scene of the shooting, so we knew we were the first hope for the injured people."

Nick Thou, emergency operation centre coordinator, Kenya Red Cross Society.

12:15: Buda, still on the line with Alvina, confirms that people at the cooking contest are being gunned down and grenades have been thrown. "I realized this was a major crisis so I called the secretary general and was given direct orders to deploy all our teams and ambulances to the scene," she recalls.

12:20: The Kenya Red Cross Society issues an 'alert level 5', used only for the most serious emergency situations. Nick and a team of first responders leave for the scene.

12:30: The journey in the ambulance is tense and silent. "No one was speaking… we were worried about Buda and Mabel and we had no idea what we were about to come up against," Nick recalls.

12:45: Still on the line, Buda tells Alvina that two women have been shot just metres away and that he can still see the feet of the gunmen from under the car where he is hiding. Alvina reassures him the team is on the way and urges him to keep calm. The call is disconnected.

12:45: Philip Ogola, Kenya Red Cross social media officer, is on his way to a rugby match when Nick reaches him with news of the unfolding tragedy. He pulls over to the side of the road and starts to pool information from Twitter and Facebook on his smartphone.

13:00: Emergency calls continue to flow into the control centre as family and friends turn to the Red Cross to locate loved ones. "All you can do is reassure them help is coming and not create further panic," says Alvina. "Take down the names and numbers and get the job done."

13:15: Amid a scene of chaos and panic, the ambulance carrying Nick and the team pulls up outside the mall. Terrified and shocked people run from the mall and scatter in all directions as gunshots punctuate the air. Nick and his team are forced to duck behind the ambulance.

13:30: Secretary General Abbas Gullet arrives at the scene and, amid the gunfire, gathers the staff and volunteers. A decision is taken to send a small Red Cross team up to the rooftop car park where the cooking contest had been taking place. "No one had yet been able to reach the scene of the shooting, so we knew we were the first hope for the injured people," says Nick.

Kenya Red Cross paramedics lie down beside a parked ambulance outside the Westgate mall in Nairobi after heavy shooting starts again from inside the mall. Photo: Sayyid Azim/Associated Press

Red Cross staff, including Secretary General Abbas Gullet (right), were among the first to reach those wounded in and around the mall with first aid. Photo: Jeff Angote/Associated Press

Numerous people were shot in and around their cars in the mall parking lot. Kenya Red Cross volunteers and emergency services staff, along with passers-by, did what they could to assist the wounded in the first minutes of the tragedy. Within the first hour, the Kenya Red Cross had sent 12 Advanced Life Support ambulances to the scene.
Top: REUTERS/Goran Tomasevic Bottom: Kenya Red Cross

13:30: Now back at headquarters, Philip monitors the event via social media. "People started tweeting to our account from inside the mall; some were hiding, some were trapped on the roof and some needed emergency help."

13:50: Abbas, Nick and the first response team cautiously make their way up the ramp towards the car park. "We had already put on our rubber gloves and prepared out first-aid kits," remembers Nick, adding that Kenya Red Cross staff never use bullet-proof vests. "We went up slowly and crouched down, because shooting was still going on." Nick remembers battling to keep calm. "I just said myself, if I don't do this, who will?"

14:00: Philip and Kenya Red Cross press officer Peter Outa go to the scene. "My phone did not stop ringing with calls from the media, but because everyone was so busy, the only way I could get any information was to get to the scene myself," says Peter.

14:00: The team makes it to the car park. "We could see dead bodies as we came up onto the roof… but we could also hear people calling out for help, so we immediately started triage and evacuation," says Nick.

14:05: Applying a principle known as 'scoop and drive' as taught to Kenya Red Cross personnel by Israel's Magen David Adom, Nick and the team give first aid to the wounded and begin transferring them into the ambulances that were speeding up and down the ramp. Gunshots continue to ring out from inside the shopping centre.

14:10: Buda and Mabel are found, both unhurt. The news is radioed back to headquarters.

14:20: The rooftop team work fast to treat and evacuate the wounded as gunmen roam inside the mall. Police officers and more Red Cross staff arrive. An unexploded grenade is spotted against the back wall of the car park. "We just surrounded it with shopping trolleys and continued treating the wounded," explains Nick.

14:30: Philip and Peter, both trained first-aiders, arrive at the car park and begin to assist the wounded. "I helped give CPR [cardiopulmonary resuscitation] to a woman who had been shot," explains Philip. "She didn't make it and her mobile phone rang just seconds after she died. I answered it. It was her husband."

14:40: As most casualties have been evacuated from the roof, attention now turns to the bodies. A local resident offers the use of his pickup truck so Nick and the team begin placing the deceased into the back of the pickup.

15:00: With the rooftop now clear, Abbas, Nick and the team decide to enter the fourth floor through a fire-exit door with the Kenya Special Forces. "We moved carefully down to the third floor because we could still hear shots being fired," recalls Nick. The team split up and try to locate the wounded or people who have been hiding in shops and guide them to safety.

15:00: Meanwhile, Peter and Philip go back down

Within the first hours of the unfolding tragedy, the Kenya Red Cross set up a tent in a nearby park, where they began collecting blood from thousands of people who had gathered in the area and wanted to help.
Photo: Riccardo Gangale/IFRC

the ramp to the front of the building to help those still fleeing. "The shock really hit me when I saw people running through the doors crying," Peter says. "The children were so scared. I knew I had to keep it together because people were looking to us for strength and hope."

15:15: Team members reassure people it's safe to leave and guide them to the exits. A number of people, including police officers, have suffered gunshot wounds and need immediate assistance. "The priority was to stop the bleeding with padding or tourniquets, and get people on stretchers and out to the ambulances," says Nick. A young man dies as Nick tries to help him.

16:30: With all visible casualties and bodies now out of the building, they leave the building and join volunteers outside who are waiting to receive and guide the last survivors to safety. Exhausted and numb, Nick joins his colleagues the Red Cross trauma centre, set up in a building across the road.

17:00: Mabel arrives back at headquarters. "I just hugged her and she cried," remembers Alvina. ■

By **Jessica Sallabank**
Jessica Sallabank is a freelance writer based in London and former IFRC media spokesperson.

Life after Westgate

For the Kenya Red Cross Society, the unforeseen and shocking events at the Westgate shopping mall have left an indelible mark on all those deployed at the scene that day. Here are some of the lessons learned.

For Nick Thou, coordinator of the Kenya Red Cross Society's emergency operations centre, communication proved invaluable. "Communication was critical," he says, explaining that aside from providing information to the public and between colleagues, clear and calm communication was also fundamental in maintaining control of the situation and avoiding panic. "When giving first aid, always introduce yourself, remain calm and reassure the person that help is on the way."

Preparation is key to the success of any emergency response and so first responders should have refresher training courses, especially in casualty stabilization in crisis or terrorist incidents, crisis management and triage, and emergency medical training, he says.

But what happens after a major crisis is also critical. Many staff and volunteers involved in the Westgate attack experienced shock and post-traumatic stress. Some still avoid crowded places and flinch at the sound of loud bangs. Others faced huge difficulties in coming back to work. "The Westgate attack was an eye-opener for the whole team," says Alvina Brauhauser, ambulance driver and paramedic. "That's why our emergency medical crews and volunteers have undergone post-psychosocial debriefing, which has helped."

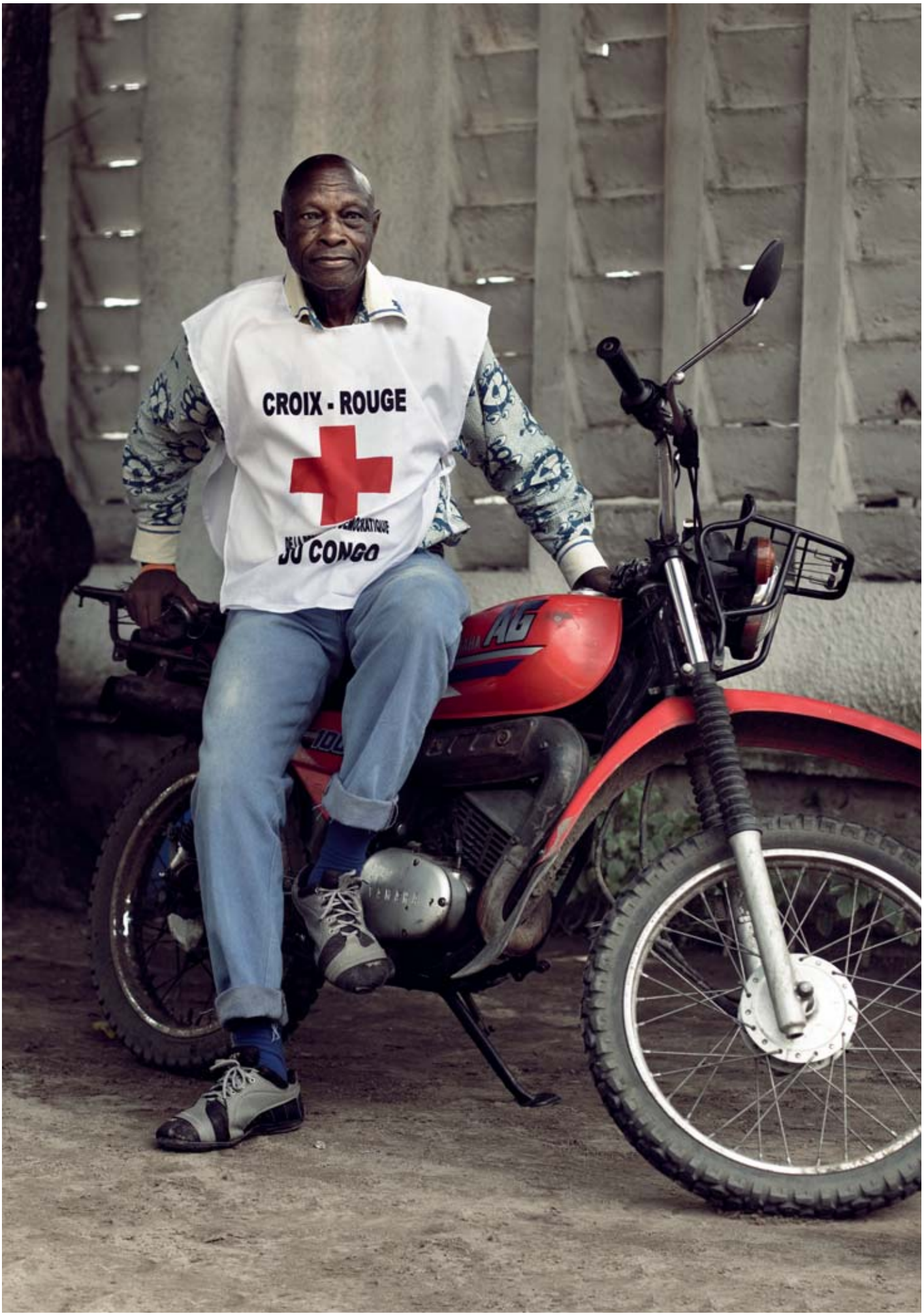


Photo: Aapo Huhta/IFRC

Our stories, our history

To mark this year's World Red Cross Red Crescent day, people around the world tell of their personal connection to the Movement. Here, volunteers of Africa's oldest National Society share their stories and give their views on humanitarian action.

DURING THE LAST HALF CENTURY, the people of the Democratic Republic of the Congo (DRC) have endured a succession of devastating crises — internal conflicts, displacement, major influxes of refugees, natural calamities — in addition to chronic poverty and poor health conditions. As a result, the country is home to one of the world's largest and longest-running international humanitarian and development operations. But reaching vulnerable people in remote, conflict-affected areas is no easy task in a country with limited infrastructure and a territory larger than France, Germany, Norway, Spain and Sweden combined.

But that's where the volunteers come in. Despite limited resources, the National Society has built up a volunteer corps that allows it to reach vulnerable people in all the country's 11 provinces.

"This is what makes us strong and we are proud of it," says 72-year-old volunteer and HIV/AIDS coordinator Paul Panzu (left). "For example, the Equateur Province is landlocked, but we manage to provide assistance to refugees from the Central African Republic who arrive in the north of the province."

The National Society has also made important contributions: working to prevent soil erosion that threatened local communities; promoting humanitarianism and non-violence; improving hygiene; providing first aid; reconnecting families separated by conflict; and offering psychosocial and economic support for former child soldiers and children from broken families.

But there are gaps. Much more needs to be done, they say, to better coordinate humanitarian action, work with communities to develop long-term solutions, get much-needed equipment into the hands of first responders, expand the network of volunteers, enhance professional capacity and protect volunteers from harm.

"The volunteers are well cared for, but it is not enough," says 22-year-old Thomas Kalonji Kananga, a trainer and youth coach. "We need the Movement to strengthen its support, especially regarding the provision of equipment and advocacy for volunteers, so they can freely access victims and not be targeted by armed groups."

Violette Lakulu Nkwewa

National trainer and coordinator of the women's brigade in the city and province of Kinshasa

As a young girl, Violette Lakulu Nkwewa was inspired by her older brother's involvement in the Red Cross. "I loved the group of young volunteers he belonged to," she recalls. "They were always together and they all spontaneously brought relief to victims, mostly related to car accidents.

"This was reinforced when I saw the volunteers help someone who had fallen and seemed old and abandoned," says Nkwewa, now 47. "They washed him and he recovered. He was not actually an old man, but a young one, weakened by disease. This gesture moved me and strengthened my conviction."

Joining as a junior volunteer at the age of 11, Nkwewa was trained in basic emergency response and over the years continued to expand her skills. "Some people were surprised that a woman could serve as a rescue volunteer, but I always told them that volunteering or rescuing was not restricted to men," she says. Now, with 36 years experience, she serves as a national trainer and coordinator of the women's brigade for the city and province of Kinshasa.

She is most proud of her National Society's work helping child soldiers and children from the street. "Many children have now become useful to society; they finished their university studies and work," she says. "I am also proud of the first-aid volunteers, especially the women, who have always been the first ones on the scene."

But the National Society can improve, she says, by strengthening its capacity to respond to disasters, providing volunteers with adequate equipment and training, and finding the resources to offer a desperately needed ambulance service.

Photo: Red Cross of the Democratic Republic of the Congo

'My story'

That's the theme of World Red Cross Red Crescent Day on 8 May. Do you or someone you know have a story to share about their connection to the Red Cross and Red Crescent Movement? If so, let us know via **rcrc@ifrc.org**.

Her toughest moment as a volunteer came when she was taken hostage by the former child soldiers she was supervising. "The children were complaining that they hadn't received any financial support to enable them to resume normal life, so they offloaded their frustration onto me, taking me hostage for more than 24 hours. As I was on good terms with them, they didn't do anything wrong to me. I used my powers of persuasion until the authorities of the Red Cross came to release me."

Kikeki Di-Bikeka

Volunteer and former head of the provincial Red Cross of Kinshasa

The year was 1950 and 24-year-old scout leader Kikeki Di-Bikeka and his troup needed to learn life-saving skills as part of their training. "The scout movement asked a Belgian nurse and Red Cross member to train us," he says, recalling his first encounter with the Movement. "At that time, the Red Cross was only open to white people and was not known as a volunteer organization by the Congolese people. Rather, it was seen as a health service."

Two years later, a Belgian Red Cross volunteer named Leon Stouff (pictured below), who was encouraging the admission of indigenous Congolese to the Red Cross, recruited Di-Bikeka as a volunteer. "Stouff's strategy was to reach out to adults through an awareness programme on hygiene and health called 'Small Samaritans' carried out by children at the Salvationists' [Salvation Army's] schools," he recalls, adding that the corps of young people grew to include 1,600 children and teens after just one year. (See www.redcross.int for a story about Leon Stouff, as well as Belgian Red Cross actions in the Democratic Republic of the Congo.)

As part of that effort, Di-Bikeka helped organize a tournament which brought even more public attention to health issues as well as support for the National Society in the community, among colonial authorities and within the Movement.

"The fact that I was recruited as the first Congolese to organize the membership of black persons empowered my humanitarian action," says Di-Bikeka, who is now 87. "I had to organize adult trainings and create rescue services fitted with 105 well-equipped vehicles and mobile clinics.

"We were always close to the community. This strengthened our image and trust within the community. Where there was an emergency, the Red Cross was seen. This momentum has preserved the National Society until today, and it makes it one of the few, if not the only, organization to be close to the populations in very difficult situations — and this in spite of insufficient resources."

Though the National Society has accomplished much, he laments that the ambulance corps no longer exists. The National Society is still not living up to its potential because the people-power of volunteers is not matched with sufficient resources and support in terms of equipment, health care and sustainable funding. "I'm sorry that after all these years, the Red Cross of the Democratic Republic of the Congo is still a beginner National Society that only intervenes with support from providing National Societies," he says.

"At that time, the Red Cross was only open to white people and was not known as a volunteer organization by the Congolese people. Rather, it was seen as a health service."

Kikeki Di-Bikeka, volunteer and former head of the provincial Red Cross of Kinshasa.

The National Society and the Movement, he says, need to do a better job raising funds, spreading its message and strengthening advocacy with parliamentarians and other officials for policies that would, for example, use a small percentage of the state budget.

Like most volunteers here, Di-Bikeka has lived through some difficult times. "In 1962, during the political crisis for an independent Congo, I was responsible for food assistance to war victims throughout the republic. Once I arrived in Kisangani, a stronghold of opponents to the government in Kinshasa, I was arrested along with the local authorities, the people who were accused of having caused food poisoning. I was saved by the intervention of a volunteer."

After all these years working as a volunteer, does he think that all the humanitarian interventions in the DRC are making a difference? "What is positive is that victims are assisted and their suffering is alleviated," he says. "The downside is that in crisis, ordinary people do not assist each other. They expect organizations to act. And even the organizations sometimes lack the resources to assist most of the vulnerable people or the assistance does not meet their real needs."

Thomas Kalonji Kananga

Volunteer, facilitator, trainer and coach for youth

For 22-year-old Thomas Kalonji Kananga, the Red Cross spirit runs in the family. So when he decided to volunteer at the age of 10, there were no objections from his parents, who were also Red Cross volunteers.

But not all parents are so supportive. "Many parents reduce the mission of the Red Cross to the collection of dead bodies and are reluctant to let their children join," says Kananga, who works in hospitals, old people's homes and vulnerable communities as well as with young people. "To support the youth who approach me, I personally meet with their parents to better inform them about our activities. Most of the parents end up consenting."

For his part, the decision to volunteer has deepened his love for his fellow human beings, improved his own self-control and helped him understand people's problems and address their concerns.

Because of conflict, poverty and other issues, many young people in the DRC lack the family support, employment, education and supervision that can help keep them on track. Activities for youth are critical in helping them avoid drugs, crime and violence, he says.

The trick is to make youth activities sustainable, by increasing the number of youth supervisors, strengthening their capacity and having more partnerships and experience-sharing with young people from other National Societies and humanitarian organizations.

"Many challenges await youth across the world, and particularly in the DRC," he says. "We therefore have a mission to manage our peers properly so they do not let themselves be carried away by bad influences." ■

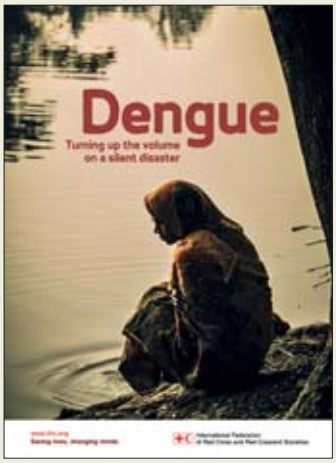
To read interviews with other volunteers of the Red Cross of the Democratic Republic of the Congo, please visit our website at **www.redcross.int**.

Photos: Red Cross of the Democratic Republic of the Congo

Resources

ICRC materials are available from the International Committee of the Red Cross, 19 avenue de la Paix, CH-1202 Geneva, Switzerland. www.icrc.org
IFRC materials are available from the International Federation of Red Cross and Red Crescent Societies, P.O. Box 303, CH-1211 Geneva 19, Switzerland. www.ifrc.org

PUBLICATIONS



Dengue
Turning up the volume on a silent disaster
IFRC 2014

Over the past 50 years, dengue fever has spread from nine countries to over 100 countries, while the disease burden has risen from 15,000 cases per year in the 1960s to 390 million today. Despite this, global media attention has been almost non-existent, financial support for dengue-related projects has remained low and episodic. With this report, IFRC is urging for a shift in approach: from responding to isolated outbreaks to investing in long-term, integrated programming including community-level initiatives aimed at sustainable behavioural change.
Available in English and Spanish

Forensic science and humanitarian action
ICRC 2014

This six-page, fold-out brochure describes how ICRC provides advice, support and training for local authorities and forensic practitioners in searching for, recovering, analysing, identifying and managing the remains of large numbers of victims of armed conflict, disasters, migration and other situations. The brochure is released along with two other documents, *Forensic identification of human remains* and *The ante-mortem/post-mortem database*. The first outlines the forensic process of identifying human remains, with an emphasis on the scientific matching of data. The second describes how to use the database, developed by ICRC and partners, as an electronic tool to facilitate the identification of remains by supporting the archiving, standardization, reporting, searching and analysis of forensic data.
Available in English

Ambulance and pre-hospital services in risk situations
ICRC 2013

This report sets out ways to make pre-hospital care and ambulance services operating in areas of armed violence safer. Written by the Norwegian Red Cross, with support from the ICRC and the Mexican Red Cross, the report summarizes field experience in more than 20 countries.
Available in English

Haiti earthquake: Four-year progress report
IFRC 2014

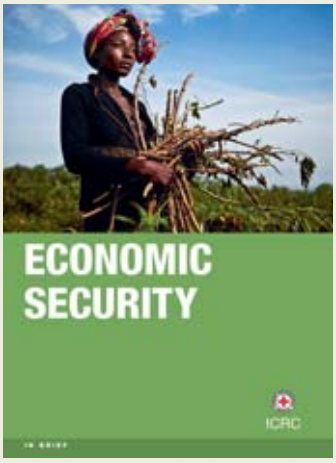
Over the last four years, amid overwhelming suffering and destruction, the Haitian people have worked tirelessly to rebuild their homes, communities and lives. This report shows how the IFRC and National Societies have provided basic support such as food, water, shelter and health care, and how many long-term projects, aimed at helping communities meet their own needs, are finally coming to fruition.
Available in English, French and Spanish

Bangladesh: Physical rehabilitation services for people with disabilities
ICRC 2013

Physical rehabilitation helps disabled people regain their mobility, enabling them to live in dignity and play an active role in society. In Bangladesh, the ICRC and the Centre for the Rehabilitation of the Paralysed run a physical rehabilitation programme that helps vulnerable people with disabilities rebuild their lives. The leaflet describes the services that this programme offers for disabled people and technicians.
Available in Bangla and English

Economic security
ICRC 2013

The ICRC's work to promote economic security is intended to ensure that households and communities can cover their unavoidable expenditures and maintain or restore sustainable livelihoods. This leaflet provides a comprehensive overview of the range of ICRC activities in this area, from emergency distributions of food and household items to establishing programmes for sustainable food production and microeconomic initiatives.
Available in Arabic, English and French



MEDIA

The power of humanity
IFRC/ICRC 2013

This powerful and dynamic 3.5-minute video, released by the IFRC and the ICRC for the statutory meetings in Sydney, blends historic film footage with images from current-day disasters and conflicts to produce a memorable montage set to Charlie Winston's bluesy and soulful song, *I'm going to put my whole world in your hands.*
Available on IFRC YouTube channel

Together, we are the Federation of Red Cross and Red Crescent National Societies
IFRC 2013

This 3.5-minute video, released at the statutory meetings in Sydney, offers a brief and broad look at the services provided globally by the IFRC and its member National Societies.
Available on IFRC YouTube channel

Combating TB, HIV and malaria in detention — Uganda's experience
ICRC 2013

Morbidity and mortality rates for these three infectious diseases are normally much higher in prisons due to overcrowding, unsanitary conditions and inadequate screening and treatment. This film shows how successful three prisons in Uganda have been in significantly reducing the spread of tuberculosis (TB), HIV and malaria among detainees. The pilot health-care projects, run by the Ugandan authorities with the support of the ICRC, resulted in significantly increased cure rates of TB, a drop in the number of malaria cases and lower AIDS mortality rates than in the general population.
Available in English

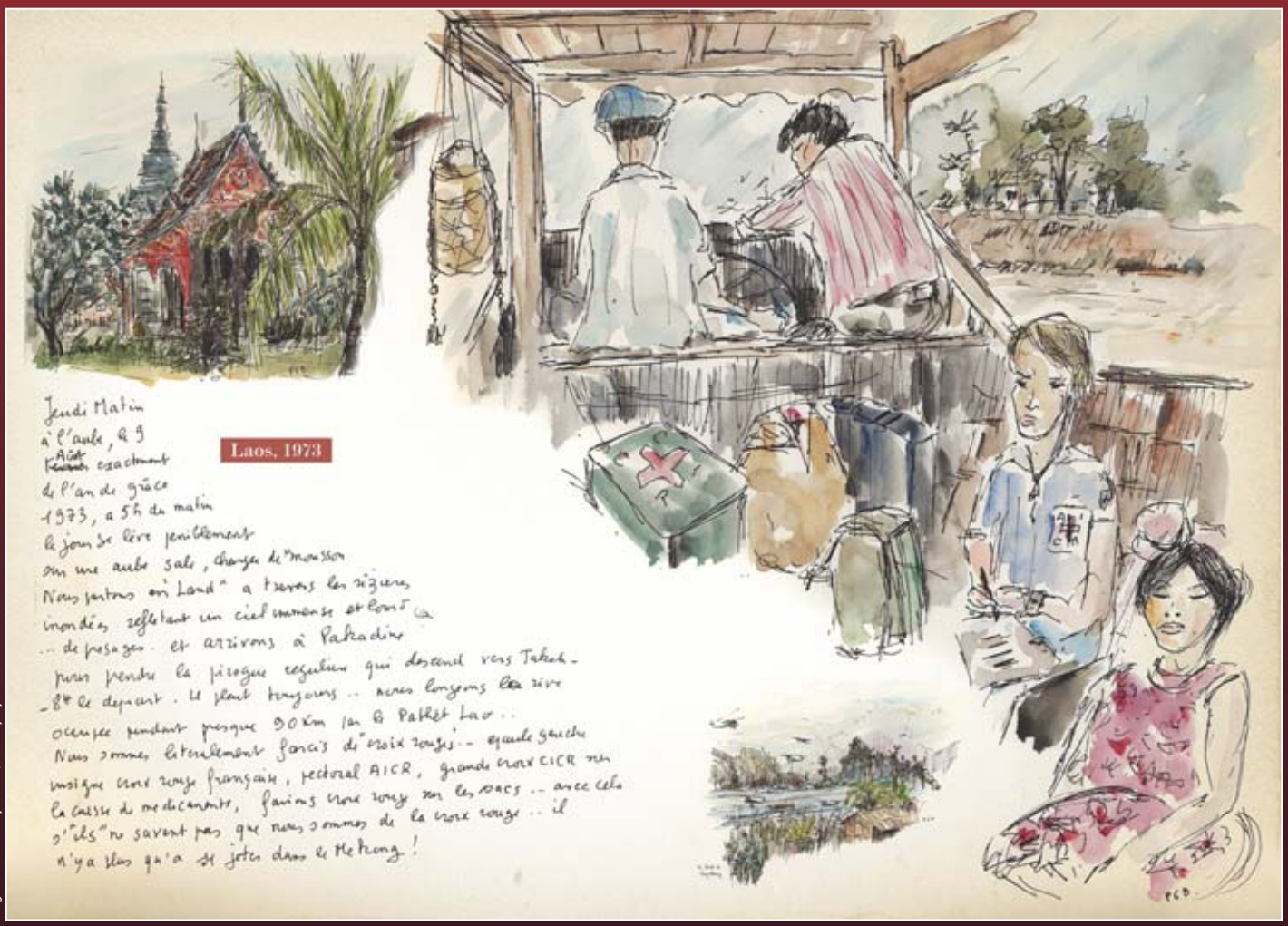


Image: Pascal Grellety Bosviel, courtesy Elytis Editions

During his five decades in the field Pascal Grellety Bosviel recorded his experiences in watercolour paintings, such as the ones above, from his time working in Laos. These paintings and many more, from nearly all corners of the globe, are included in his recently published book, *Toute une vie d'humanitaire*, produced by the Paris delegation of the ICRC as part of its 150 years of humanitarian action commemoration.
To read more, visit www.redcross.int.