

RISK ZONES

BEFORE / **DURING** / AFTER





Table of contents

04

The conflict
in Ukraine

16

Flooding in
Pakistan

18

Emergency
Response
Units

24

Disaster
types

26

Drought
in Kenya

36

Help from
satellites


40

The curse
of four
crises

42

Risk Zones
learning
material

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A drone image of the village of Kalabaydh in Somalia, which is suffering from a drought and a food crisis.

Image: Somali Red Crescent Society

We must not fail

I am writing this editorial while visiting Kenya, which is undergoing the worst crisis brought on by drought in four decades. The United Nations' Climate Change Conference in Egypt, which was concluded only a week ago, decided to launch a special fund to provide compensation to developing countries for the negative effects of climate change.

The COP27 conference represents the highest level of climate policies, a strive towards a shared understanding of the situation, international commitments and as extensive cooperative efforts as possible. The effects of the decisions made will hit Kenya the hardest. Here, the strategies, commitments and plans ought to be implemented in practice.

In the global forum, debates usually take place according to the lowest common denominator. Representatives of small island nations at risk of being engulfed by the oceans and delegations from countries whose existence is largely dependent on using hydrocarbons sit in the same auditoriums. Governments clearly do not share the same understanding of the bigger picture, even though the scientific consensus regarding the prevailing trends is unequivocal.

Reaching a mutual decision on the Loss and Damage fund was extremely difficult in Egypt, and the Paris Climate Change Conference commitment to limit global warming to 1.5 °C could not be renewed at all.

Climate politics involve several layers. We should keep global warming below the critical 1.5 °C level, but regardless of how successful we are, we should prepare and adapt to the inevitable consequences of climate change. Simultaneously, those who are the most directly affected by climate change must be able to cope with the impacts of the resulting disasters.

Kenya is part of the regions of East Africa and the Horn of Africa, where the negative effects of climate change are constantly present. People here will tangibly feel how good or bad our decisions have been. Right now, our score is pretty poor.

Instead of having managed to reduce our greenhouse gas emissions, their amount in the atmosphere has continued to rise. Moreover, recent calculations show that current funds aimed to prepare for and adapt to climate change have a deficit of up to 85 per cent when compared to the level of needs.

In addition to insufficient funding, two other large-scale problems exist. Firstly, only a fraction of the climate funds are targeted at those countries that suffer or will suffer the most. Secondly,

the least amount of resources are directed towards local action, even though the effects at this level would be the greatest. Therefore, the Red Cross is aiming to enhance these local operations.

Kenya is one example of the countries that are experiencing the outcomes of bad decisions. The UN has been compiling long-term statistics on the financial aspects of humanitarian distress. Never in the history of these statistics has the humanitarian aid funding met the needs; instead, aid work has been carried out for a long while with what little funds are available, while being fully aware that far too many needs are left without a response.

Resolving the problems resulting from climate change requires that we take advantage of all the opportunities to do so. We must not fail to cut back emissions, because the preparation and adaptation measures required must not become unreachable. Unless we invest sufficiently in preparation and adaptation, the resources will not even cover a response to the human suffering that the failure would cause.

We are faced with several simultaneous, overlapping, consecutive and mutually correlating crises. The food crisis that is currently taking place in the Horn of Africa is a cumulative effect of climate change, loss of biodiversity, the coronavirus pandemic and the conflict in Ukraine.

The inability of the climate conference to renew the 1.5 °C commitment shows that some of us are still not looking far enough into the future. However, humanitarian operators such as the Red Cross, continue their work so the effects of this indecisiveness would remain under control at a local level as much as possible.

We are putting in the effort so that the impact of climate change that we see at a local level will ultimately be understood around the global negotiation tables. Here in Kenya we have not yet given up hope.

Kristiina Kumpula
Secretary General



Image: Jarkko Mikkonen

Aid work on an industrial scale

When millions of people are on the move, the scale of the aid operation also goes up. Russia attacked Ukraine on 24 February 2022. By the following summer, roughly six million Ukrainians had fled the country and nearly eight million were refugees in their own country.

In December 2022, the situation has evolved further: the total number of refugees has now increased to 19 million. Because Ukraine's heat and electricity generating plants have been systematically bombed, the oncoming winter of 2022–2023 may see this number rise by several million more.

Such a high number of people has never been in search of shelter and safety from a war in Europe since the Second World War.

How can all of these people on the move be effectively helped and who will do it? Where can a person who has left their home sleep, while they are still on their way to somewhere? How will they know where they should go? What will they do when they need to eat and drink?

THE WORLD OF LOGISTICS

This article delves into the complexities of the chain known as logistics. At the beginning of this chain is someone who donates money or supplies for to be used to help people in trouble. At the other end, this money or supply item should reach the person who most needs help and the donor should not have to worry about whether the help ever reached its destination.

The first emergency response logistics unit of the Finnish Red Cross travelled to Ukraine at the beginning of March on the invitation of the International Red Cross. The participants included long-standing logistics experts with extensive experience in disaster aid from Africa to America and from Europe to Asia.

EVERYTHING REVOLVES AROUND A CENTRAL WAREHOUSE

The logistics unit's duty is to organise the transport and storage of the International Red Cross's material aid and to build a chain that can continue to operate for years to come, if necessary.

The chain must be planned in a way that allows all the supplies to reach the right place at the right time, so that everything can be traced.

One of the central warehouses of the International Red Cross for the operation in Ukraine is located in the Polish city of Lublin, near the Ukrainian border.

On an early morning, Polish Red Cross volunteers are packing cardboard boxes onto lorries that will travel to Ukraine: rice, pasta, and cans of meat, fish and vegetables.

Next to them rise towers of boxes containing other aid supplies, such as hygiene products for babies and adults – tens or even hundreds of thousands of units of them. This is aid work on an industrial scale. Logistics is key.

Supplies leave the warehouse depending on the need and orders:

THE CHAIN MUST BE PLANNED IN A WAY THAT ALLOWS ALL THE SUPPLIES TO REACH THE RIGHT PLACE AT THE RIGHT TIME, SO THAT EVERYTHING CAN BE TRACED.

sometimes to refugees in Ukraine's neighbouring countries, sometimes to Ukraine itself for internal refugees.

For example, during natural disasters aid work is usually carried out in one or two countries at the most, but this is not the case with the Ukrainian operation. Immediately after the conflict began, Ukrainians fled to Poland, Slovakia, Romania, Moldova and Hungary, where they were in need of rapid emergency aid. Due to the events at the front, people have continued to move: some have returned while others have carried on further.

This has called for rapid and extensive action from national Red Cross societies. They have had to offer food and drink, organise emergency shelter, and provide first aid and emotional support as well as hygiene supplies and clothes. Teams of disaster relief volunteers from the Ukrainian Red Cross stayed at several border crossing points for many weeks, helping refugees travel onwards. A high number of refugees still remain in Ukraine's neighbouring countries.



Ukraine

- Capital city: Kiev
- Area: 603,549 km²
- Population: 43,637,000
- Population density: 72.3/km²





The large Red Cross warehouse in Lublin, Poland, is full of aid supplies on their way to Ukraine: hygiene sets, pasta, rice and cans of vegetables, meat and fish. Top-level logistics experts ensure that the materials will reliably reach those who need them most.

How does emergency aid work?

The Finnish Red Cross has several Emergency Response Units. Their official name is often shortened to ERU in the aid workers' everyday speech. The FRC has ERUs specialised in logistics, health and telecommunications. Their equipment is located in FRC's central warehouse in Kalkku, Tampere, and they have members of the delegate reserve pool all around Finland at their own workplaces.

When help from a large organisation is required, the members of the aid workers' reserve receive a message asking about their willingness and ability to participate. At that point, the Red Cross or Red Crescent Society of a country facing an emergency has concluded that it requires assistance; getting involved without a request from the locals is not possible.

The work of the ERUs is coordinated by the International Red Cross. The units will only stay at a location for a few months and then hand over the system they have established to their local counterpart society.

The Emergency Response Units' rotations never last for months, only for some weeks. When aid workers arrive at the scene immediately after a disaster has occurred, their workdays are long, the hours are not counted and days off may not materialise. Therefore, the teams are swapped every 4–6 weeks.



The Finnish Red Cross logistics centre contains fully kitted out emergency aid units that are ready to deploy if the alarm goes.

Reima Larki is an admin delegate at the Red Cross warehouse in the Polish city of Lublin. He is responsible for managing the warehouse operation's finances and various permits, contractual matters and bureaucracy.



NEW CIRCUMSTANCES

'Operating in multiple countries changes the operation, making it difficult to know the whereabouts of those that need help. They may be staying at reception centres or in private accommodation. Distribution does constantly take place in all the countries affected by the crisis in some way. We are currently creating a logistics chain from Poland to Ukraine for the future, because this will be a very long operation. Personally, I think that the work will only reach the peak after the war has ended,' says **Jussi Halonen** who ran the second rotation logistics team in Ukraine and Poland.

Halonen also sees other differences when compared to his previous experiences from Haiti, Pakistan, the Philippines, Jordan, Indonesia, Nepal, the Bahamas and Tunisia.

'We are now working in fully organised states that operate according to normal rules of logistics and red tape. In natural disaster areas it is often the case that the materials are received in the field, cleared for customs and distributed according to your own system. Here, things are completely different. For example, we are using commercial warehouses that have their own procedures which we must follow.'

Admin delegate **Reima Larki** also has an office in the backroom of the warehouse in Lublin. Every conceivable contractual and financial matter, without which supplies would not move anywhere, goes through him.

'The situation becomes more complicated when several countries are involved, one of which is at war. First of all, there are three currencies: the euro in Europe, the zloty in Poland and the hryvnya in Ukraine. That is one of the things that must be accounted for in the daily operations,' says Larki.

This is his 12th assignment, and in some ways easier compared to many of his previous ones.

'We are in Europe, the time difference to Finland is only one hour and operating in an EU country is simple. Natural disasters tend to cause a lot of damage, but here the internet and other services are working.'



Communications delegate Leena Reikko reports on the aid work during the conflict in Ukraine, mainly carried out through donations.

AN UNUSUAL COMMAND CENTRE

A conference hall in a hotel in Lviv is serving as the Red Cross logistics centre, although it does not look like the headquarters of a busy operation. The tables are far apart from each other and the people sitting at them are hunched over their laptops or talking on their phones. One person is trying to find out how a civilian car can best be driven from a warehouse in Poland to Ukraine without a long wait, while another is searching for a sufficiently large storage space. Lviv is being turned into a warehouse hub, where supplies could be taken to without an extra stop in Poland.

‘Compared to my previous assignments, this is a very large operation. The amount of supplies being ordered is incredible, as many as hundreds of thousands of units,’ says logistician **Ari Seppälä** from Lviv.

Another notable difference to the other assignments is operating in a country that is at war. Lviv has been relatively calm, but even here the air raid sirens cause disruption to work during the day and sleep during the night.

‘I worked in refugee camps in Jordan and Greece during the Syrian crisis, but the crisis itself was far away. In Ukraine, the air raid sirens go off daily. I have never been this close to a war before,’ says Ari Seppälä. However, he immediately adds that he does not feel scared, because he trusts the organisation’s safety arrangements. Seppälä ought to know, because outside of this role he works as a security chief for Suomen Rakennuskone at the Kevitsa mine in Sodankylä in Finland.

The situation and circumstances can change rapidly in a country that is at war. In the spring, finding fuel in Ukraine became considerably more difficult, which caused a lot of trouble. Ukrainian men are not allowed to leave the country, which in turn has made it hard to find drivers. Some of the work entails picking up aid supplies from

warehouses in Poland, and driving them across the border to Ukraine.

‘When it comes to natural disasters, the first month for aid distributors is typically quite free and supplies can easily be brought into a country. War changes that too. The Ukrainian officials are, naturally, very strict about who may bring things into Ukraine and what those things may include. The checkpoints are very tight, and everyone must be able to show proof of what they are doing,’ Jussi Halonen explains.

AID ARRIVES

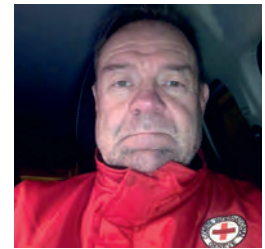
The crisis in Ukraine has prompted a huge amount of willingness to help, and a lot of aid material has been collected for people suffering from the crisis. Every consignment takes a lot of work on arrival before the aid can reach those who need it the most.

‘Everyone can help in a way that best suits them, but small operators may run out of resources or aid can get caught up somewhere where it can become a problem. We are a large and robust organisation with plenty of professionals and a high level of expertise. When I leave this post, another professional will take my place. This ensures continuity,’ **Keijo Eklöf** explains.

The transparency of the operations will also guarantee their continuation.

‘As logisticians, our duty is to make sure that materials are in the right place at the right time, and that we can report this all the way to the donors. Maintaining this transparency is of utmost importance,’ Jussi Halonen emphasises.

In May, the FRC transferred three million euros to the International Red Cross’s cash aid programme to help both internal refugees and those who have fled to the neighbouring countries. The aid is provided on a prepaid payment card that a person can use to acquire the aid that best suits their personal circumstances. This allows them to retain their autonomy and dignity even in a vulnerable situation. ■



Keijo Eklöf

A Finnish aid worker for the International Committee of the Red Cross (ICRC), Keijo Eklöf, took this selfie while sitting in the cabin of the lead vehicle of an aid convoy, waiting for the other lorries to pass through a roadblock. In the dark and wet Ukrainian night, Keijo typed in his thoughts on his mobile:

‘I’m sat in the lead vehicle waiting for the rest of the convoy behind me to get through the roadblock.

‘A light but continuous flow of cars is travelling in the opposite direction towards the border. From what I can see in the dark, they seem to have women and children onboard. Whatever room is not taken up by the passengers has been filled with bags, sacks and luggage.

‘Part of Ukraine’s energy infrastructure has been damaged, and millions of people are without water, power and heat as we speak.

It is raining for the fifth day in a row, and the temperature is -2 degrees. The road and car are covered in sleet and ice. There is not even a moment’s respite from the wind. When the engine is turned off, the air inside the vehicle cools down in 15 minutes. The winter hasn’t even begun yet, but the wind can penetrate everything and I have no desire to go out.

After waiting for a while, we push on in a convoy and arrive at our accommodation, where the hallways and corridors are cold. The temperature in the rooms is perhaps 14 degrees, and the power goes out a few times over the first hour. The shower’s not inviting, because there is no hot water.

I find out where the emergency exits and air raid shelter are, in case the sirens go off tonight. However, we aid workers are privileged when compared to many of the locals.

For countless others, this constant insecurity has been forced on them by inescapable circumstances. Some are looking after their loved ones, some are trying to keep their businesses running, and some do not have the strength to leave. The reasons vary, and every decision to leave or stay must be equally respected.’

EVERY CONSIGNMENT TAKES A LOT OF WORK ON ARRIVAL BEFORE THE AID CAN REACH THOSE WHO NEED IT THE MOST.

The unforgettable Uzhhorod

Aid worker Sirpa Miettinen kept a journal during spring 2022 in Ukraine.

MONDAY 11 APRIL 2022

A few days ago, I learnt that I've been accepted as a health delegate to the Austrian Red Cross team in Ukraine. The Austrians have a long history of supporting the Ukrainian Red Cross, particularly since the events of 2014. In spring 2022, the Austrians arrived in Transcarpathia, around the border with Hungary and Slovakia, soon after the Russian occupation had begun. They provided emergency aid to Ukrainians arriving in the area, fleeing the war.

The Austrian team required a health care professional, because the population in the region had nearly doubled and the primary health care services had been insufficient even under normal conditions. The war was now causing further problems, and the Ukrainian Red Cross had asked for support.

My role will be to find ways in which the Austrian Red Cross can improve health care in the area. I felt slightly nervous about the new situation, because even though I have served the International Red Cross and the FRC before I would be joining an aid team of a different national

Red Cross Society for the first time.

The travel plans have changed many times already, but the evening briefing reveals that photographer **Ville Palonen** and I will be travelling the day after tomorrow. He seemed like a nice guy on Teams, and later turned out to be an absolute ace. At some point, we will be joined by spokesperson **Leena Reikko**, which is very happy news. She is an old and dear friend from my previous assignments!

One of my colleagues has heard about my leaving, and is asking if I'm mad and am I not scared to be going to Ukraine. My answer is, no. I'm not scared. In fact, in Ukraine I'll be able to do a job that I know and have trained for.

TUESDAY 12 APRIL EVENING AFTER A SHIFT

We received confirmation that Ville and I would take a Thursday-morning flight to Vienna and spend a day there. We would receive our induction from the Austrian Red Cross there and continue on Friday with a rental car to Slovakia, close to the Ukrainian border.

My head feels like a knick-knack shop rampaged through by a cartload of monkeys. News from Ukraine echo at the back of my mind while I search for the latest media updates on the war, Ukraine, Transcarpathia and the operation. At the same time, my thoughts are still heavily occupied by my normal job as a vocational school teacher.

Get your things together, quickly! Oh no! The mice have destroyed my trusty old travel bag that has wheels. The replacement bag has no wheels. I follow the age-old wisdom of packing less: Layout everything you think you will need. Remove half of those items and then half of the remaining ones.

I'm left with minimum gear, including normal clothes, personal hygiene items, and an underlayer of wool and silk, as well as woolly socks as a precaution. There is a war on, so a headtorch and tent lights with replacement batteries, and a few backup power sources are needed in case of a blackout. I also throw in a sleeping mat and a light rugged sleeping bag in case I need to travel around.

And that's it!

WEDNESDAY 13 APRIL

Put the bag in the car. I feel the same as many times before after having packed my bags: whatever awaits me at my destination is still a complete mystery. On my way to the airport, I write my final notes on the teacher-student mssg platform Wilma and make my husband memorise the care instructions for the dogs.

**MY HEAD FEELS LIKE A KNICK-KNACK SHOP
RAMPAGED THROUGH BY A CARTLOAD OF MONKEYS.
NEWS FROM UKRAINE ECHO AT THE BACK OF MY MIND
WHILE I SEARCH FOR THE LATEST MEDIA UPDATES ON
THE WAR, UKRAINE, TRANSCARPATHIA
AND THE OPERATION.**

A small boy's painting on the door of a Red Cross office says it all: MIR (peace) and a speech bubble above the adults and child that says: 'We are hoping for a peaceful sky, so that families could be together.'





Before reaching the airport, I receive a few more background information packages from the FRC and manage to sort out a couple of work-related things more.

How easy everything is for me thanks to a family that can manage all the household routines, such as the bin, the fridge and unfinished chores, when I go. Some of my fellow delegates have to figure out many other things as well, while I can leave a chaos behind me!

My passport is running out, but I

make it to the police station in time and manage to get myself an express passport. It's a lovely pink colour!

THURSDAY 14 APRIL

Meeting Ville at the airport early in the morning. He has brought me a laptop and a phone. We have both tested negative for COVID-19, so off we go to the gate and fly away. We are warmly welcomed to the Austrian Red Cross headquarters in Vienna and receive a great induction that takes several hours.

Aiding fellow human beings for the 19th time

Nurse Sirpa Miettinen teaches practical nurses at Vocational College Tredu in Kangasala, near Tampere. She is also one of the most experienced humanitarian aid workers in Finland. For the spring and summer of 2022, Sirpa worked in the Ukrainian city of Uzhhorod for the Austrian Red Cross operation, being in charge of the operation's health care component. This was her 19th assignment abroad.

Sirpa's shortest aid gig was connected to the tsunami in the Indian Ocean in 2004. She flew to Phuket in Thailand with the Finnish Red Cross rescue expedition and immediately returned to Helsinki, tending to the injured Finnish patients on the plane. Her longest assignments have lasted for a few years, usually under the Red Cross symbol.

In Ukraine, Sirpa was placed in Uzhhorod, a city at the border with Hungary and Slovakia. Its normal population is 125,000, but the number has doubled due to people fleeing the war. There, her task was to receive the Finnish Red Cross's health clinic and initiate measures for establishing nine mobile clinics that could serve the region more extensively. Since then, the mobile clinics have been launched and are now in operation.



Sirpa Miettinen.

Here is the situation in a nutshell: the population in the area has nearly doubled since February as people have fled from the battles in the east. Everything connected to normal life is on short supply. The health care services have been coping so-so, but soon we may have a timebomb on our hands.

FRIDAY 15 APRIL

A drive in a rental car from Vienna through Slovakia towards the Ukrainian border. Ville drove, I was the navigator. The trip went well and the scenery was gorgeous. We only got lost twice... As the night fell, we met with our team leader, **Wolfgang**, in Kaluža, about 35 km from the border of Ukraine.

He told us about the city of Uzhhorod and our future office on the Ukrainian side. Everything, and I mean *everything*, must go through the Ukrainian Red Cross (URCS) district leader, Mrs **Ivanna**, and nothing happens without her permission.

This means that the delegates were immediately faced with a situation in which the local URCS people were forced to do things they were unfamiliar with, at least on this scale, including procuring, storing and distributing emergency aid to refugees, and managing supply logistics, not to mention sensible distribution and tracking systems.

The studio that serves as our accommodation is super cute, though, and has a view over the lake from its balcony. You can hear the birds singing their springtime songs. There are also nice jogging routes nearby. The room also has a small kitchenette. However, the fridge is completely empty, and no one remembered to tell us to buy at least some breakfast stuff.

SATURDAY 16 APRIL

There is luckily a coffee machine in the building's lobby! Talking to me in the morning before I've had a cup or two of coffee on my own is pretty pointless. As it was Easter, everything was shut when Wolfgang, Ville and I were looking for somewhere to have breakfast.

We decided to drive to Uzhhorod. We spent an hour at the border.



'Well, that went faster than usual,' said Wolfgang. As we arrived in the city and I was looking around, I told Ville: 'I already feel at home in this place.' What a beautiful city, full of history and nature!

We visited the office, which is located in the same building as the district office of the Ukrainian Red Cross. We just had time to introduce ourselves to the employees and volunteers who were there.

Back to Slovakia for the evening (now over 2 h at the border). Same as in the morning: long queues of refugees trying to cross to Slovakia on foot. Local Red Cross volunteers on both sides of the border were there to assist them, providing first aid, food and drink, and helping with luggage, children and the elderly.

SUNDAY 17 APRIL

I finally managed to get online and access my emails. The phone works

too (I think)... The day is spent at various induction meetings on Teams. Because of Easter, we did not go to Uzhhorod today.

I'm dutifully installing eTrivoga on my phone. It will alert me of an air raid, in case I don't hear the sirens, although there is a delay, and the alert will come through about a minute after a warning by the city's sirens. But it'll probably be useful if we're in a car and can't hear the sirens.

MONDAY 18 APRIL WEEKS 16-17

We had to choose whether to stay in Kaluža or go to a hotel in Uzhhorod. Of course we preferred the option of a hotel, rather than waiting at the border several hours every day, travelling to and from Slovakia. We got our stuff together and drove across the border!

No basements or similar shelters exist anywhere nearby for air raids. We were told to go to the toilet if

Valentina Mitrovtsij is the chair of the Ukrainian Red Cross's Uzhhorod branch. The branch's service centre is visited by hundreds of clients every day.



Maria Kitchenko overseeing the packaging of food bags at the Red Cross warehouse in Chop, Ukraine. When everything is ready, the aid is distributed to those in need in and around the city of Rakhiv.

I WONDER WHERE ON EARTH THESE PEOPLE, WHOSE LIVES AND EMOTIONS HAVE LIKELY BEEN SHATTERED, ARE ABLE TO GET ALL THAT ENERGY TO HELP OTHERS IN SUCH A CHEERFUL, KIND AND EXTREMELY EMPATHETIC WAY.



The Austrian Red Cross delegates Wolfgang Stöckl (left) and Theresa Meyer (right) having a meeting with Sirpa Miettinen.



Oleksandr Bodnar is the Red Cross's emergency response team leader in Uzhhorod. Since February 2022, they have been working 24/7. It has been a demanding experience, but the team has carried out its duties in good spirits.

there is an alarm... Surely not! There's room in there to sleep on the floor with your head between the bowl and the shower cubicle, and your legs curled up underneath the sink. Must think of something else. Perhaps some nook in the hotel's corridors without any windows.

In case the windows shatter and the thick curtains cannot hold back the shards, I will create a foxhole for myself between the bed and the wardrobe by using my sleeping mat (which I luckily brought with me). When I'm finished, the filled up mat stands against the wardrobe with a silk duvet cover draped around it. I will also be able to pull more blankets and pillows into my floor bunker from the bed next to it.

We have time to walk around the city a while. Uzhhorod is a really beautiful place, its old parts in particular, built on both sides of the river Uzh. Old and new architecture coexist in

harmony, and everywhere you can see bigger and smaller pieces of art, forged by blacksmiths. Even when taking a familiar route, you always notice something new and nice. All the shops seem to be open, and they also have plenty of stock. Various payment methods can also be successfully used.

The team and work with the Austrian Red Cross feel amazing and completely natural, like working with Finnish colleagues: a team leader and delegates for cash aid, water and sanitation.

Led by the International Federation of Red Cross and Red Crescent Societies (IFRC), the region is undergoing a health care assessment of identifying its resources and requirements, waiting for the findings and joining in as needed. Currently, we are waiting.

This gives us time to become more familiar with the URCS's current operations. What I find surprising

is that the number of volunteers is so high. For example, the Uzhhorod branch created a distribution point in front of their office, in the courtyard of a museum. The locals brought in clothes and other supplies, and their distribution was organised highly professionally into stalls so that refugees could easily pick up things for babies, toddlers, teenagers and adults.

The branch was also handing out hygiene and food parcels from the Austrian Red Cross. Furthermore, the volunteers handling the distribution and the related record keeping were themselves mostly refugees who had arrived in the area. I wonder where on earth these people, whose lives and emotions have likely been shattered, are able to get all that energy to help others in such a cheerful, kind and extremely empathetic way.

I spotted a water colour painting by a small boy on a door. He had brought it to the branch once when



Red Cross Volunteers at work at the Red Cross service centre in Uzhhorod. Ludmila Barkovska sorting clothes in the foreground, while Oleksiy Krakov hands out ten-kilo food bags in the background.

Alina Lavrenko is a business woman from Uzhhorod. She has donated 450 pairs of shoes and 600 items of clothing to help internal refugees in Ukraine.

fetching aid supplies with his mother. The word MIR (peace) has been painted on the water colour sky in big letters. On the left, the image has two adults and a child, and the speech bubble above their heads reads: 'We are hoping for a peaceful sky, so that families could be together.' In the centre of the picture, between the ground and the sky, is a No entry traffic sign, which speaks volumes. It made me cry...

It is also a huge privilege to meet the region's first aid team, see them train and hear about their work, which currently includes assistance at the seven border crossing points of the region. They tell me that Mrs Ivanna is a strong and strict leader, but looks after her employees and volunteers fiercely like a lioness. I take my hat off to her!

This April in Ukraine is colder than in decades (good thing I brought my thermals and gloves with me). Every now and then I have to leave the office to warm up outside, even though I'm wearing layers.

I've now experienced my first air raid alarm too. We moved from

the office into the windowless lower-floor corridor, because we have no air raid shelters close by. The volunteers and employees offered us coffee and carefree chatting.

The Transcarpathian health care programme includes the URCS service centre, as well as mobile clinics for each local branch in the region. The Austrian Red Cross has resources to invest in these (as it has been doing in east Ukraine since 2014).

However, the local-level operators do not have the skills or the resources needed. Staff could be hired with support from the Austrian Red Cross or the IFRC, but the systems of the Ukrainian Red Cross and the local authorities are still unclear. The headquarters are going to send guidelines. Until then...

Leena the communications delegate has arrived in Uzhhorod. We got to spend a few evenings together, catching up and reminiscing about the past. Then she and Ville travelled to Lviv and ultimately back to Finland. I stayed. Everything's fine at home.

WEEK 18

I am slowly beginning to understand the extent of the difficulties that Ukraine's health care is currently in. First of all, half of the hospital beds must be reserved to care for patients from the areas where the fighting is taking place. Secondly, the primary health care and family physician system are in chaos, because both the doctors and clients are on the move and the system is not agile enough to sustain changes.

There may be some resources left for the refugees, but the medicines used to treat basic illnesses will soon run out. The maternity and child health clinics are also running out of capacity. On top of that, you have mental health, substance abuse and drug problems, as well as STDs, which were massive issues even before the war.

We have begun to review which standard-list supplies might be available for the mobile health clinics either locally or in Ukraine in general. The lack of interpreters has been one of the major problems. Young people with first aid skills, most of whom are university



students of various fields, do speak English, but Mrs Ivanna does not want them to be used as interpreters for URCS operations. That's perfectly understandable.

The city is now more beautiful each day, and I'm falling deeper and deeper in love with it! Many trees are blossoming, and when some of them stop, others open up their buds. Tourists have always travelled here to admire these flowers and take selfies under the trees. In the wintertime, travellers have been attracted here by the area's numerous ski resorts. In addition to that, the mountains have amazing national parks and hiking trails. I wish I could go up there, even for just a moment!

WEEKS 19–20

Oleksei has been chosen as the URCS's project manager for the Transcarpathian health care programme. He is a nice and capable fellow, who also speaks excellent English. The only thing is that he has no skills in health care.

We have finally managed to hire a full-day interpreter, **Nikita**, for the Austrian Red Cross. Him and

I have had long philosophical discussions about what neutrality and impartiality mean in Ukraine and for the Ukrainians under the current circumstances. A difficult topic.

I brought up an example from health care and a question that my students had asked me: 'If you had to treat a paedophile who had kidnapped children and abused them sexually, would you really provide them with good care?'

Yes, I would. And I might even care for them more efficiently than other patients so that they would be guaranteed to recover and go in front of a court to answer for their actions. That does not mean I would condone what they have done. We are not judges.

More daily meetings... This bureaucracy is beginning to feel frustrating, because we are constantly running into new problems with hiring staff for the clinic and the mobile clinics. But the region's health care and other authorities have promised to take care of it, and we have to trust them.

I bought some luxuries for my room: a kettle that allows me to boil

water for instant noodles, tea or instant coffee, for example. Just being able to have coffee at my own pace is a big deal for me!

WEEK 21

The lack of vehicles is one of the biggest issues in the launch of the mobile clinics. Vehicles are also needed for other operations, such as distributing aid to schools, daycare centres and sports venues – places where refugees are staying. Moreover, cars are necessary to transport patients to their appointments and examinations. The Austrians have promised to donate old ambulances.

Mrs Ivanna wanted to launch the mobile clinics at the same time at all nine branches. I suggested that we begin with a single pilot (once we get a car and sort out the hiring issues with the Ukrainian Ministry of Health), learn from that experience and then expand the operations.

Since there were so few cars available initially, she agreed. The Uzhhorod branch's area was chosen as the pilot location. There, we began unofficial talks under Oleksei's leadership.

A Red Cross hygiene parcel contains washing powder, soap, shampoo, toilet paper, toothpaste and other vital products.

A ten-kilo Red Cross food bag contains oil, juice, pasta, tomato sauce, sugar, salami, chewing gum, biscuits, instant coffee, and cans of meat, beans and sweetcorn.



WE ARE ONLY HERE TO OFFER HELP, SUGGESTING OPTIONS AND PROVIDING SUPPORT WHERE REQUIRED. ONLY IF THE LOCALS CAN SAY 'WE DID THIS OURSELVES' HAVE OUR EFFORTS BEEN SUCCESSFUL.

Finally, we have also received instructions for the mobile clinics in Ukrainian! That has allowed the extremely over-worked Oleksei and his wingman, the senior medical officer, to start acquiring equipment for the mobile clinics.

The district office still hasn't got anyone besides Oleksei to begin working on the mobile clinic plan. Mrs Ivanna continues to refuse to hire new staff, and instead she's waiting for the funds to be first transferred from the headquarters to the district's account. But there is some sort of a hold up there. I think that this slow progress is an attempt to weed out the relatively large-scale problem of corruption in the country, which is why things are not rushed, just to be on the safe side. I don't know.

Oh well, let them deal with things in their own way and on their own. I have always believed when working for these aid projects – even in poorer countries – that we're only here to offer help, suggesting options and providing support where required. Only if the locals can say 'we did this ourselves' have our efforts been successful.

WEEKS 22–23

The Austrian Red Cross's water and sanitation specialists gave a training session to the volunteers on the art of water purification the other Sunday, which was everyone's day off. It was very interesting, and I'm sure we all learnt something new.

In the past, the volunteers have also received training for example in psychosocial first aid, which they provide as part of all of their operations.

Special attention is paid to child refugees. A safe area has been created for children at the clinic, which they can use if their guardian is seeking help with a health concern, but also at any other time as well.

The volunteers of the Ukrainian Red Cross also arrange regular club

activities for children at the reception centres. These include playing, singing, fun and games, but more serious topics can also be discussed, as necessary. Highly important work!

During my assignments, I've often seen how children who have gone through hardship no longer feel entitled to sing, laugh or be creative. Once they get over that hurdle, they are able to feel better, despite everything that's happened and the upset and worried grown-ups around them!

WEEK 24

After several delays, the Austrian Red Cross's ambulances have arrived across the border from Hungary to Ukraine. Some of them are meant to continue onwards, two will remain in Transcarpathia. The red tape at the border caused some hassle, but lessons were learnt for importing more vehicles in the future.

My assignment was supposed to end, but I've promised to carry on until my replacements gets here. One has been found, and we've had several calls on WhatsApp. A wonderfully cheery and happy person. I'm sure they'll do fine.

I told them to pack some instant noodles and porridge in their bag for the occasional private mealtime in the hotel room. And a nail brush! In warm weather, your feet need to be carefully washed and cared for. Even if you can find a nail brush here, it'll be so soft as to be more suitable for basting.

WEEK 25

Often during these assignments, I have felt that I'm surrounded by people far wiser than myself and able to learn more from the locals than what I have been able to give back. That's the way I'm feeling now.

The history of the area with all its twists and turns is incredible. It has lived through countless wars and regimes, often relying on its own cultural history. Art has always been important here. In one of my travel

photos, I'm sitting in one of Uzhhorod's lovely parks between the bronze statues of two highly esteemed artists – I'm sitting with them. Back in the day, they had an important role in promoting arts education and professional artistic skills here. Their work can still be seen today.

WEEK 26

My assignment is over. My replacement is here and has been briefed. A train from Ukraine to Budapest in Hungary. My back protested to me dragging my wheelless bag onto the train, changing trains twice and carrying the said bag from Budapest station to the taxi stand.

Met up with a friend in the city who just happened to be visiting. My friend is from Hungary and able to talk about the country's history in detail. On the way to the ferry restaurant, we passed the Jewish holocaust memorial. The artist has captured the shoes of civilians left by the Danube when their owners were shot.

Again, it made me well up. Will humanity ever learn?

THOUGHTS FROM NOVEMBER/DECEMBER 2022

I'm following the news closely. The Ukrainians are incredibly unwavering and unyielding. So far, six mobile clinics have been established in Transcarpathia! However, the upcoming winter, coldness, and the lack of food and water are a concern. How will they cope? How many people will, once again, begin to migrate?

On my return, I picked up my new passport, which is now an appropriate colour, from the police station without any queuing. I went to a chiropractor a few times to sort out my aching back. I also bought a new wheely bag. In addition, my guide dog had puppies while I was away, and all seven future guide dogs have now moved out. Two of them to the Finnish Guide Dog School's partner establishment in Slovakia.

Life goes on. ■

Anastasiya Streltsova (left) and Daryna Kopytko fled Bucha, which has since become known for war crimes, on the second day of the war in February 2022. The women have lived in Uzhhorod since then and are happy to have received Red Cross aid parcels.

THE HIMALAYA, KARAKORAM MOUNTAINS AND THE TIBETAN PLATEAU

Billions of people are completely dependent for their water management on those Asian river systems that originate from the glaciers of the Himalaya, the Karakoram mountains and the Tibetan Plateau.



Pakistan is only the beginning

At the start of summer 2022, Pakistan was experiencing temperatures exceeding 50 degrees, the same as the rest of South Asia. The sweltering heat made people, livestock and crops suffer.

However, at the start of September, the drought was turned upside down. All of a sudden, a third of the country was overtaken by historically severe flooding. Close to 1,800 individuals were confirmed to have lost their lives, and a total of 33 million suffered from the consequences of the floods, as millions lost their home

and livelihood. One in seven Pakistanis continue to feel tangible effects of the flooding in their lives, but ultimately no one can avoid becoming part of the 2022 story of floods. The overall cost of the damage incurred is estimated to be 15 billion euros.

Climate change is making itself known to the Pakistani people in a cruel way. However, Pakistan is only the beginning. In addition to the rising heat, the eyes in South and Central Asia are focused on the melting glaciers of the Himalaya, Karakoram mountains and the Tibetan Plateau.

What is happening to the water?

In addition to the changing climate and melting glaciers, monsoons are looking for new open slots in the calendar, disrupting the cycles of nature. The large Asian rivers are no longer running in their familiar beds; instead of irrigation and household water, they are offering either devastating floods or droughts increasingly often.

Billions of people live in the areas influenced by the large Asian rivers drawn on the map. However, climate change and its consequences are changing their living conditions, and



Pakistan

- Capital city: Islamabad
- Area: 796,096 km²
- Population: 235,409,000
- Population density: 295.7 / km²



THE LARGE ASIAN RIVERS ARE NO LONGER RUNNING IN THEIR FAMILIAR BEDS; INSTEAD OF IRRIGATION AND HOUSEHOLD WATER, THEY ARE OFFERING EITHER DEVASTATING FLOODS OR DROUGHTS INCREASINGLY OFTEN.

The floods in Pakistan affected 33 million lives. More than a million buildings and 3,000 kilometres of road and bridges were destroyed. Around 1,800 people died. The financial damage was worth approximately 15 billion euros.

the change will be quite radical in the long run. By the end of the century – or sooner if we carry on this way – a considerable portion of the area will become very difficult to live in. Some of these environments may even become unsuitable for humans to inhabit.

In the worst-case scenario, this will mean that hundreds of millions of people must find new homes in viable living environments. Such environments are primarily located in the northern hemisphere.

As climate change causes changes

The FRC's aid worker, Tuuli Turunen, has a busy work schedule in the city of Karachi. Being a logistics specialist, Tuuli ensures that aid supplies are received, stored correctly and delivered onwards to people suffering from the floods.



An FRC aid worker, Tuomas Laibert, and Nasir Khan from the Pakistan Red Crescent were unloading a new shipment of aid supplies at the Karachi warehouse with the rest of the aid work team. The material aid will be delivered to people suffering from the flooding in Pakistan. The aid includes kitchen utensils, tents, blankets, mosquito nets, hygiene parcels and tarpaulins.



A Pakistan Red Crescent volunteer, Muhammad Khan, is writing down Muhammad Navaz's information on a phone application. 'The type of help that people in the village of Habibullah require due to a serious flood is being assessed,' says FRC aid worker Rami Syed who took the picture and is reporting from the location.



An FRC aid worker, Gyöngyi Kovács, is an experienced professional in his sector. Normally, she works as a professor of humanitarian logistics at Hanken School of Economics in Helsinki. With this selfie, Gyöngyi Kovács sends her regards from the province of Sindh in Pakistan, which has suffered from devastating floods and where aid parcels were distributed to those who needed help the most. 'My duties include finetuning the logistics process, so that the aid supplies can be distributed even better.'



to the planet, and increases the frequency and intensity of various disasters, we must prepare for a not-so-distant future where systematic relocation is a reality. The alternative is uncontrolled climate migration. We can already see this crossroads ahead of us.

Currently, we are experiencing one disaster at a time. The Finnish Red Cross is taking part in the aid operations in Pakistan as part of the International Federation of Red Cross and Red Crescent Societies. The FRC's disaster relief fund sent

100,000 euros at the start of September to help cover some of the costs of the International Red Cross's sizeable aid operation. Furthermore, the FRC has sent logistics professionals to Pakistan to ensure that the massive aid operations are running, and that those who need help the most receive it reliably in the right form at the right time.

In addition to the immediate humanitarian aid, the Red Cross and Red Crescent will help with rebuilding and preparations for the next disaster. ■

Text: Pekka Reinikainen
Images: Mirva Helenius,
Jarkko Mikkonen, Maija Tammi

The Red Cross's
secret weapon:

the Emergency Response Units (ERU)

The International Red Cross send ERU teams to help victims of natural disasters, other crises or conflicts if a local Red Cross or Red Crescent Society requests assistance, help is needed urgently and a Society's own resources are insufficient.

The Emergency Response Units coordinated by the International Red Cross supplement the emergency aid provided by a country's authorities and local Red Cross or Red Crescent Society, typically for approximately four months.

The Red Cross ERUs are service combinations governed by shared international standards. The units operate independently or as part of services offered by local authorities, and they provide support to international Red Cross aid operations. The

units involve trained staff members and material aid, and they operate on specifically allocated funds and resources. Their operation is initiated by aid workers, together with local workers.

**THE INTERNATIONAL AID
WORKERS OF THE FINNISH
RED CROSS ARE TRAINED PRO-
FESSIONALS WHO HAVE GAINED
UP-TO-DATE SKILLS THROUGH
THEIR PERSONAL CAREERS.**

National Red Cross Societies around the world maintain various types of ERUs. Back in the day, the Finnish Red Cross took part in launching the global ERU operations of the entire Red Cross, and it

maintains an extensive level of preparedness for the use of ERUs.

The international aid workers of the Finnish Red Cross are trained professionals who have gained up-to-date skills through their personal careers. The FRC's aid worker reserve includes over 1,300 professionals from various fields. Around 600 of them have been trained for emergency response tasks.

When disaster strikes, the members of the reserve receive a text message alert, and by responding to it they can register their interest in joining an assignment. The staff members are selected from amongst these individuals and deployed for 4–8 weeks at a time, depending on the assignment and the requirements of the unit to be sent out.

At its shortest, the time between



National Red Cross Societies that maintain ERUs

	Austria	Benelux	Denmark	Finland	France	Germany	Italy	Japan	Norway	Spain	Sweden	Switzerland	UK	USA	TOTAL NUMBER OF ERUS
TELECOMMUNICATIONS	x		x	x						x				x	5
WATER AND SANITATION Module 15	x				x	x				x					4
VATTEN OCH SANITET Module 40	x				x	x					x				4
VATTEN OCH SANITET Module 20 (vatten)	x					x				x	x		x		5
RAPID DEPLOYMENT EMERGENCY HOSPITAL				x		x			x						3
FIELD HOSPITAL				x		x			x						3
PRIMARY HEALTH CARE CLINIC Fixed and/or mobile				x	x	x		x	x	x					6
LOGISTICS			x	x	x					x		x	x		6
BASE CAMP			x				x								2

the alarm and deployment has been mere hours. Such swift action is made possible by procedures negotiated with employers in advance.

While in the reserve and training for their tasks, a reserve member is referred to as a volunteer. However, when deployed on an assignment, they always become a hired FRC aid worker for the duration of their assignment.

Whenever possible, the majority of ERU workers are recruited from amongst experts from the area where the disaster struck. Local workers and volunteers know the circum-

stances and culture of their area better than anyone, and can speak the local languages. Simultaneously, they will learn to use an ERU's devices and equipment.

Emergency Response Units are constantly kept ready to deploy, apart from the actual staff. This work takes place at the Finnish Red Cross's logistics centre in Kalkku, Tampere. Materials are acquired by using funds donated to the FRC's disaster relief fund, for example. The FRC will remain responsible for the operations and costs of an Emergency Response Unit it has deployed for at

least a month. If necessary, the units' operating times can also be extended.

At the end of an operation, the FRC hands over a unit's devices and equipment either to the local Red Cross or Red Crescent, or the country's authorities. This helps improve the locals' ability to respond to the next disaster.

To replace the equipment etc. of a unit deployed and donated to a disaster area, the Finnish Red Cross puts together a new unit that meets the needs of the next disaster.

A care centre was erected in Kenema, Sierra Leone, when the area was suffering from an Ebola virus epidemic in 2014.

TO REPLACE THE EQUIPMENT ETC. OF A UNIT DEPLOYED AND DONATED TO A DISASTER AREA, THE FINNISH RED CROSS PUTS TOGETHER A NEW UNIT THAT MEETS THE NEEDS OF THE NEXT DISASTER.



Experienced ERU aid worker Riitta Mäki-Vaurio dressed in PPE before stepping into an Ebola treatment centre.



The telecommunications ERU team setting up a satellite dish in the Nepalese village of Melamchi, which suffered badly from an earthquake in 2015.

THE ERUS MAINTAINED BY THE FINNISH RED CROSS INCLUDE:

HEALTH CENTRE

An FRC health centre is sent to a disaster area if it lacks primary health care services either partially or completely. These health centres can operate at a fixed location or as mobile centres.

A total of 10–15 aid workers travel with each health centre, depending on whether the centre is fixed or consists of mobile parts. Additionally, local professionals are hired for various roles.

A health centre manages first aid, prevention and treatment of infectious and any tropical diseases, child health services and children's vaccinations, pregnancies and childbirth, assessments of local population's state of health and nutrition, and health advice. A health centre can also be modified to respond solely to epidemics, such as cholera.

A fixed health centre can serve an area with a population of around 20,000–30,000 people. It can care for 50–200 patients in a 24-hour period. The health centres also have hospital beds.

A mobile health centre adapts to the local conditions and can equip between one and three mobile units to circulate around the operating area, offering primary health care, advice, as well as preventative care and health education.

If necessary, patients are sent from a health centre for further treatment in a hospital.

FIELD HOSPITAL

Finnish Red Cross field hospitals are sent to disaster areas that have insufficient hospital services available due to having

been destroyed in an earthquake or devastating floods.

A total of 35–45 aid workers travel with a unit. Additionally, plenty of local staff are hired for various roles.

In addition to primary health care, a field hospital provides specialised medical care services. It has 24/7 wards for surgery and traumatology, internal diseases, infectious diseases and children's diseases, as well as tropical diseases, where necessary. Furthermore, it provides gynaecology and maternity care services, including a labour ward. A hospital's auxiliary services include an operating theatre, a laboratory and X-ray services, physiotherapy and psychosocial support services.

A hospital supports local health centres and is able to serve an area with a population of 200,000–300,000 people. Each hospital is able to care for 150–250 patients in a 24-hour period and may have up to 160 hospital beds. At its highest, the capacity equals that of a Finnish regional hospital.

These hospitals can be modified according to the requirements, focusing for example on surgery.

LOGISTICS

An Emergency Response Unit dealing with logistics facilitates a fast and safe delivery of aid supplies to the recipients in a disaster area. A logistics unit is also responsible for managing the overall logistics requirements of an aid operation.

One unit consist of 4–7 professionals of various logistics sectors who, after having received an alarm, will travel to a disaster area to coordinate the reception and delivery chain of the International

Red Cross's aid supplies. Logisticians take care of the import, storage and transport of aid supplies to and in a disaster area.

A unit is either placed directly in a disaster area or some other location suitable for the transport and storage requirements, such as a harbour or an airport. A logistics unit is a vital part of an aid distribution chain.

Local staff are hired for the logistics units, according to the conditions. The Finnish Red Cross logisticians cooperate with the logisticians of a local Red Cross or Red Crescent, or the International Red Cross.

A typical aid worker composition of a logistics unit includes a team leader and delegates responsible for managing the distribution chain, the flight operation and its logistics, as well as storage and transport.

A logistics unit that includes a forklift, vehicles, and office and storage tents weighs around 8,000 kilos and fills up roughly half of a large lorry. Without the vehicles and the largest storage tents, a unit can be transported to a location on a normal commercial flight.

TELECOMMUNICATIONS UNIT

The Finnish Red Cross's Emergency Response Units that focus on telecommunications support aid operations by ensuring functioning IT services and telecommunications connections. A unit consists of 2–4 IT and telecommunications specialists.

During disasters, telecommunications connections tend to become overburdened, and in a worst case scenario the whole system can collapse. Telecommunications are vital for managing a

Dipendra Sakya, 35, is talking to aid worker Jess Letch from the Australian Red Cross at a camp built for the disabled in the Nepalese earthquake area of Lalitpur.



Boys feeling happy at a water fountain built by the Red Cross in the Philippines; in the Leyte region after Typhoon Haiyan in 2013.

disaster, so that aid can be delivered and coordinated efficiently.

Where necessary, a unit provides an aid operation with an independently operating telecommunications network with local services, which include file sharing, printing and scanning of documents.

An internet connection is created through the most cost-efficient means possible by using local service providers, mobile networks or satellite connections. If required, a local radio network can also be built for phone connections.

A telecommunications unit hires local staff and works with the local authorities, telecommunications professionals and the Red Cross or Red Crescent employees, depending on the circumstances.

Typically, a telecommunications unit's staff consist of a team leader, and computer, telecommunications and radio network specialists. A unit with all its equipment weighs approximately 1,600 kilos and takes around six cubic meters of transport space. It can be transported to its intended location by a normal commercial airliner, if necessary.

OTHER EMERGENCY RESPONSE UNITS IN THE INTERNATIONAL RED CROSS'S ERU SYSTEM:

BASE CAMP

A base camp serves the needs of a larger aid operation. It provides the necessary basic infrastructure to the participants of an aid operation: accommodation, food, clean water, self-generated electricity,

laundry services and even workspace.

Base camps come in different sizes. The smallest one has services for ten people, while the largest can serve up to a hundred aid workers. The biggest setup is able to provide a complete food supply for up to 200 people – a total of 600 meals a day.

The largest base camps take a team of five delegates and the local professionals they have hired to run. The base camp structures have been designed to last for over a year, if necessary, and up to 70% of everything a base camp includes can be recycled.

AID DISTRIBUTION

An aid distribution unit is a tool used to identify the greatest needs, target the aid correctly, register aid recipients, distribute aid in an organised manner to pre-registered recipients, and assess and report on the distribution success.

An aid distribution unit distributes food, cash aid and aid supplies in connection to household things and accommodation. The number of aid workers is 4–5, and they work as part of the IFRC's aid operation, helping the local Red Cross or Red Crescent Society.

M15 WATER DISTRIBUTION

As the name implies, an M15 water distribution unit is able to manage a water supply for 15,000 people. It generates 225,000 litres of purified water a day, is able to store 200,000 litres and transport 75,000 litres of clean water every day across a wide geographical area. Furthermore, a unit can provide 5,000 people with basic sanitation services.

One unit consists of 4–6 delegates.

Its equipment weighs 22 tonnes, and its transport requires 160 cubic metres of space.

M40 WATER DISTRIBUTION

One unit can generate and purify 600,000 litres of water a day for 40,000 people, and it is capable of storing 75,000 litres. Fixed water tanks are used for the storage. These units have their own transport, with which water can be transported to more distant locations as well.

In order to work, a unit requires the presence of a surface water source. Its staff consists of 4–6 delegates and a group of locally hired people.

MSM20 SANITATION UNIT

An MSM20 is able to provide hygiene education and sanitation services to 20,000 people for four months. It builds latrines, manages solid waste and prevents pathogens. A unit's operations prevent illnesses involving diarrhoea, cholera and diseases caused by other pathogens. Its staff includes 5–6 delegates. In addition to that, local workers are hired.

Graphic designer Mikko Saarainen has drawn a centre-spread image of an imaginary earthquake area. It shows a huge number of the earthquake's consequences and instances of damage. Furthermore, the drawing also illustrates how the Red Cross responds to earthquakes.

Study the picture and find the main elements.





Disaster types

Earthquakes

An earthquake involves sudden and fast shaking caused by the movement of the tectonic plates or their sections underneath the ground or the ocean, or by volcanic activity underground. Earthquakes strike suddenly without a warning, and they may occur at any time. They can lead to death, injury, damage to property, loss of shelter and livelihoods, and disruptions in the critical infrastructure. Most of the deaths are caused by collapsing buildings or secondary hazards, such as fires, a tsunami, flooding, landslides and a release of chemicals or toxic substances.

Landslides

A landslide refers to the movement of rocks, debris, soil or mud down a slope in massive quantities. Although most landslides are caused by gravity, they may also be a result of rainfall, earthquakes, volcanic eruptions, pressure in a water table, erosion, instability of slopes due to deforestation, cultivation and construction, as well as the melting of snow and glaciers. Mudslides are rapidly moving landslides, and they are particularly dangerous because of their speed and volume. Some mudslides have been found to have moved faster than 160 kilometres per hour.

Avalanches

An avalanche is a rapid flow of snow, ice and/or rocks, or a combination of these, down a slope or a mountain. Avalanches can be set off by natural forces, such as rainfall, earthquakes or a reduction in the snow cover in cold areas at a high altitude. They may also happen due to human action, for example if a person skis, walks or rides a horse across a critical snowy area. Slab avalanches, formed when a large section of strong ice or snow begins to slide off a weaker snow layer, are the most dangerous. Avalanches can cause massive blockages, destroy entire buildings and lead to serious injury or death.

Heatwaves

A heatwave is an extended period of unusually high temperatures and, often, high humidity. They are expected to become more common and frequent in the future, due to climate change.

People experiencing a heatwave can suffer a shock, dehydration or serious heat illness. Heatwaves can also make chronic cardiovascular diseases worse. Heatwaves have been found to increase mortality rates, particularly amongst individuals who are already unwell. The worst levels of heat can overwhelm the body's ability to regulate its temperature, leading to hyperthermia and death.

Wildfires

Wildfires (bush or forest fires) are extensive, uncontrollable and potentially devastating fires that can affect both rural and urban areas. They can spread quickly, change direction and even 'jump' long distances when the wind picks up embers and sparks. They can be a result of several natural causes (such as a lightning strike) or human carelessness (such as a discarded cigarette). The features of an area determine how a fire will spread, for example the amount of flammable material (vegetation or dead trees) and the weather conditions (wind and heat). Wildfires can start in a few seconds and become uncontrollable within a couple of minutes.

Cyclones

Tropical cyclones are storm systems that rotate fast around a centre of low pressure. They rotate counter-clockwise in the northern hemisphere and clockwise in the southern hemisphere. They usually move slowly, but the wind speeds are high, reaching 120–320 kilometres per hour. Cyclones are called by different names depending on where they occur: they are referred to as cyclones in the waters of Southeast Asia and the Indian Ocean, typhoons in the waters of East Asia and the Pacific Ocean, and hurricanes in the Atlantic Ocean, Gulf of Mexico and the Caribbean. The majority of cyclone-related deaths are caused by floods, but also by electric shocks, collapsing structures and flying debris.

Technological and biological hazards

Technological hazards are caused by technical or industrial conditions, dangerous actions, faults in the infrastructure or human activity. Chemical, biological, radiological and nuclear hazards are all technological hazards. They are usually grouped together,

because they share a lot of similarities and many preparedness and response measures are the same or highly similar.

Volcanic eruptions

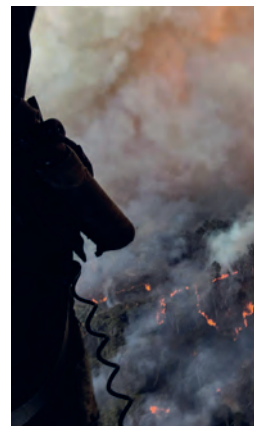
A volcano is a hole or a tear in the Earth's surface, allowing magma (hot liquid and semi-liquid rock), volcanic ash and gases to escape. They are typically located in areas where the tectonic plates move towards or away from each other, but they can also occur in the centre of a plate as hotspots. The release of lava and gas – which may be explosive – is called a volcanic eruption. The most dangerous type of eruption is known as a pyroclastic flow, which is a current of newly-released lava and gases down a volcano's sides. Lava flows can move quickly and reach temperatures of up to 650 °C. Other hazards connected to volcanic eruptions include ash rain and mudslides. Volcanoes often cause displacement and a lack of food amongst people.

Tsunamis

A tsunami is an ocean wave that is typically set off by an extensive shift of the seabed. Tsunamis are usually a result of an earthquake, but they can also be caused by large underwater landslides or volcanic eruptions. They can hit any coastline at any time. Tsunamis can move as fast as a jet aircraft across open seas and hit a coast with waves as tall as dozens of metres. In flat low-lying areas, the water can run several kilometres inland, and push up along rivers and streams, destroying everything in its path. Waves can strike a shoreline in groups over several hours, and dangerous currents can persist for days. Although tsunamis cannot be stopped, their impact can be mitigated if communities understand the risks, receive timely warnings and know how to react.

Floods

When water spills over the normal boundaries of a stream, river or other body of water, or pools in an area that is usually dry, it is called a flood. There are two main types of floods: the first type is a slow flood that develops over hours or days, while flash floods occur suddenly and often without a warning, usually due to heavy rainfall. Even though annual flooding is a natural phenomenon in many parts of the world, human settlements and land use have led to floods becoming more common



and their impact becoming more extensive. In the future, floods are predicted to become more frequent and severe because of climate change. Floods can be extremely dangerous and cause an enormous amount of harm to people, the environment and property. Storm surges are another form of flooding, associated with cyclones, which raise the water's surface level by several metres.

Cold waves

A cold wave or a cold snap is a weather phenomenon in which the air cools down or extremely cold air penetrates into a large area. It is characterised by a drop in the temperature clearly below the average for the area. Cold waves can have negative effects on people, crops, property and services. They can be preceded or followed by significant winter weather phenomena, such as snow or ice storms, and they feel even colder if the wind is strong.

Drought

A drought is a long period without rain or snow that can lead to a shortage of water. If communities do not have enough water for drinking, cleaning and agriculture, it can endanger their livelihoods and lead to a food shortage, the spreading of diseases, malnutrition and hunger, an urgent need to move and financial losses. Drought can also have a negative impact on the electricity generation, transport and commercial or industrial operations in a country.

Epidemics and pandemics

An epidemic means an unexpected and often rapid spread of a disease within a community or area. An epidemic becomes a pandemic if it spreads globally, crossing international borders and affecting a large number of people. Many infectious diseases can pose significant health threats at a local, regional and global level, resulting in epidemics or pandemics. Epidemics and pandemics can be prevented and mitigated through various measures at home and in communities, including good hygiene, social distancing and vaccinations.

Hail storms

Hail is a form of solid precipitation, consisting of balls and lumps of ice. Storms that create hail are known as hail storms. They typically last for no more than 15 minutes, but may cause injury to people and damage buildings, vehicles and crops. If a hail storm strikes a small area, it may lead to power cuts, topple trees and cause sudden floods and mudslides in steep terrain. Occasionally, hail storms can be connected to other serious weather phenomena, such as cyclones and tornadoes. In some rare cases, massive hail pellets have been known to have caused concussions and even death through head injuries.

Famine

A famine is an extensive shortage of foodstuffs caused by several things, including war, natural disasters, failed crops, a population imbalance, widespread poverty, an economic disaster or government policies. The phenomenon is usually associated with or followed by malnutrition, hunger, an epidemic and higher mortality rates. Every populated corner of the world has experienced a famine over the course of history. In the 19th and 20th centuries, Southeast and South Asia, as well as Eastern and Central Europe, recorded the highest numbers of deaths due to famine. These numbers began to drop sharply in the 21st century. Since 2010, Africa has been the continent that has been suffering the most from famine.

According to the United Nations' World Food Programme (WFP), a famine can be officially declared if malnutrition is widely spread and people have begun to die of hunger, at least 20% of the area's households are suffering due to an extreme lack of foodstuffs, the area's ability to cope is limited, the occurrence of acute malnutrition in children exceeds 30% and death rates exceed two in every 10,000 people per day. A declaration of a famine does not impose any binding obligations on the UN or its member states, but it helps focus global attention to the problem.

What happens when disaster strikes and help is needed?

Within 48 hours, the country's own Red Cross or Red Crescent Society will accumulate information from reliable sources, satellite images and weather forecasts, including:

- Information about the current and predictable geographical target areas
- Information about the current and predictable population groups suffering from the disaster
- An assessment of the urgency of needs according to sector (for example the state of nutrition, housing and health)

This information is analysed, and a preliminary assessment of the situation and the required measures is made based on the material. The assessment is then used by the International Federation of Red Cross and Red Crescent Societies (IFRC) to decide if an emergency appeal should be made or if funds should be lent to the country's national society from IFRC's disaster relief fund to cover the immediate needs.

For the next seven days after a disaster, the information collection continues, including recording the experiences and views of the target communities. Based on this more extensive information that has been collected and analysed, the IFRC will support the country's national society in creating a plan and a budget for the operation.

Within 40 days, an extensive population review that includes all the aid work sectors is carried out. Based on the review, the emergency appeal and/or aid operation strategy may be changed to better match the actual conditions, if the situation and the target population's needs have changed.





Kenya

- Capital city: Nairobi
- Area: 582,646 km²
- Population: 51,464,000
- Population density: 88.3 / km²

Animals die first

No rain has fallen in the dry areas of Kenya in over two years. A large proportion of the livestock has died, and people are surviving on aid.

On the eastern plains of Kenya, the land is so flat and dusty grey that it merges almost seamlessly with the sky. Only a few dry bushes and knobbly trees break up the landscape; here and there, you can see the carcass of a cow or a goat.

The village centre of Sericho is covered in fine sand. Because no rain has fallen for two years, the brisk wind is picking up the dust, forming large clouds.

Mohamed Rashid Dabaso estimates that the local herders have lost around half of their animals. He is a civil servant, a representative of the Presidential Office at local level. A bit like a mayor, but in the Kenyan system he works for the state rather than the municipality.

The Horn of Africa would normally have two rainy seasons a year, but the last four have failed in the worst way

**THE HORN OF AFRICA
WOULD NORMALLY HAVE
TWO RAINY SEASONS
A YEAR, BUT THE LAST
FOUR HAVE FAILED IN THE
WORST WAY POSSIBLE.**

possible: 'We haven't received a drop,' says Rashid Dabaso.

DROUGHTS USED TO BE SHORT

The people in the local Borana tribe are pastoralists. Herdsman **Abdi Buke Tinisa** smiles as he talks, but his eyes are sad: 'I used to have 50 cows, but only 12 remain alive. I don't think they'll survive until the next rains, because they are so weak,' he says.

He remembers the days when life was still good. The rains came when they were meant to, and the livestock was fine. A river ran through the village. Cattle, goats and sheep would graze for a day, then return home before the nightfall. 'Now the animals search for food and stay up all night looking for grass. Some fall prey to wild animals, such as lions.'

According to Buke Tinisa, the drought has caused a lot of fear. The river, too, has been dry for three years. Buke Tinisa says that dry years occurred in the past as well, but they happened occasionally and usually afterwards it would rain so much that the animals were able to regain their strength before the next drought. This drought is exceptional: the last time that four consecutive rainy seasons did not occur was four decades ago. People are now

When cows and goats are clearly dying, they are let out to stretch their legs and pass away. Birds and insects clean out their carcasses.





waiting for the end-of-the-year rainy season. If that one fails too, it will be completely unprecedented, as the rainy seasons have never been known to fail five times in a row before.

A mere thought of it makes Mohamed Rashid Dabaso fall silent and stare at the table: 'It's difficult to find the words for it,' he says quietly. 'If the rains don't come, I believe the rest of the animals will die too. And after that, these people will die as well.'

THE ANIMALS MEAN EVERYTHING TO A HERDER

The Kenya Red Cross has dug a well in Sericho and built a water station for the animals. One was sorely needed, as the old well of the village was poor. Now, the livestock can have a drink of water.

However, there are so many animals that each herder may only bring their livestock in for a drink once every three days. That helps too, although it is not much. Abdi Buke Tinisa also says that the animals will not survive on water alone.

There are no more pastures, and the weak animals die for example of ticks, because they cannot cope with even the smallest of health issues. 'If the drought continues, the animals can be fed pellets, but without grass they won't get stronger.'

The livestock breeders have begun to wonder whether they should give up their old ways if livestock can no longer live on their land. A few of the villagers have tried the life of a farmer. 'Some have sown sweetcorn, but they have perhaps had a crop or two before the plants have died,' Buke Tinisa says.

It might be that the soil is not suitable. The well that the Red Cross dug also turned salty in August, and no one knows the reason why. Luckily, it does not seem to bother the animals, but people can no longer use the water from the well.

'Giving up on breeding livestock is culturally difficult,' says Buke Tinisa. People are used to living with animals – livestock is both a bank account to the herders, but also a measure of their self-worth. Therefore, many of them would prefer not to sell their animals. Besides, the famished animals would not fetch a lot of money at the moment. That is why

the people are hoping and waiting for the rain to come after all. Some of the animals would still be alive then, and the owners could start to grow their numbers again. This seems like a fairly desperate wish. 'What we want the most is for the river to come back and bring grass everywhere.'

LEAVING IS NOT AN OPTION EITHER

In Sericho, it is difficult to avoid wondering why the people do not simply leave.

Livestock breeder **Halima Bagajo** is quick to reply: 'The world has changed. In the past, when we were hungry we could escape it to the neighbouring municipalities. Now, there is nowhere to go. There are armed bandits around this area, and no one dares to move far.'

The drought has made conflicts between groups more frequent, because everyone is suffering its consequences. Livestock theft has increased, as has incidents of violence.

INFLATION TAKES THE REST

Halima Bagajo used to be a wealthy woman. She had a hundred goats, but 60 of them have already died. Three of her five cows are still alive.

For an extra income, Bagajo sells khat. It is a legal substance in Kenya, but in many other countries, including Finland, it is classed as a prohibited narcotic.

However, money is a big problem according to Bagajo. 'These days, money doesn't buy much.' In the past, 500 shillings (approximately five euros) was enough for food, but the prices have gone up. 'A kilo of sugar or flour now costs 140 shillings. A litre of oil is 500. If I get 1,000 shillings today, I can eat today, but not tomorrow,' Bagajo explains. 'There are people who go days and nights without food.'

She hopes that someone from the outside could help those suffering from drought. She puts most of her hope in God, but organisations have also provided help. 'We need outside help with water, food and our animals.'

Sericho has not received a drop of rain for a few years. It makes it easy for the wind to pick up dust.



'CHILDREN AND PREGNANT WOMEN ARE DYING HERE. WE CAN'T PROVE WITHOUT A DOUBT THAT THEY DIED BECAUSE OF THE DROUGHT, BUT WE SUSPECT THAT THE CAUSE WAS MALNUTRITION.'

Rashid Dabaso says that conflicts have become more common than before. 'All our neighbours are herders as well, and everyone is trying to take advantage of what little water and pasture there is. The neighbouring tribes come to our well and attack the herders.'

Sericho's village hub has around 1,400 households. This year, more than ten people have already died in the conflicts. 'Five people died – three women and two men – during the previous attack the other night,' Rashid Dabaso says.

He points out that when people die due to drought, they do not die of thirst but typically from related issues, such as conflicts and malnutrition. 'Children and pregnant women are dying here. We can't prove without a doubt that they died because of the drought, but we suspect that the cause was malnutrition.'


According to her, the Red Cross and the World Food Project have provided them with money. 'It has been really helpful, but not enough. If we get 5,000 shillings every three months, it will help us for the first few days,' she says. 'Although that's something too.'

Bagajo looks after eight children, five of whom are still at school. 'Two have graduated and one looks after the livestock, because I'm already old,' she says.

Bagajo's children are lucky in the sense that their guardian has been able to pay for their school fees. Many are no longer able to do so. 'Many families haven't got the money to buy food for their children,' Abdi Buke Tinisa says. 'How could they afford school?' ■



Halima Bagajo (right) looks after eight children. One of them is Aziza Muhamed, sitting next to her.



Text: Esa Salminen
Images: Esa Salminen

Entrepreneur Farhiya Abdi Ali runs a shop where the villagers buy their basic necessities and receive electricity for their phones.

Cash, food, fodder and water

– The Red Cross eases suffering amidst a drought

Urgent emergency aid is needed in the Horn of Africa. The Red Cross has ample means to provide help and has already supported over 100,000 households in Kenya.

Shopkeeper **Farhiya Abdi Ali** is happy. The Red Cross has given many people in her home village, Abakaile, 10,600 shillings in cash aid per person, which equals roughly a hundred euros.

The most vulnerable individuals, such as single parents, guardians of orphaned or disabled chil-

dren and frail elderly people, were chosen as the recipients. 'This place is starting to look like a shop again,' Abdi Ali says, smiling.

For a long while, the shelves in her shop were empty, because no one had the money to go shopping and she was unable to get new stock in.

MONEY TRANSFERS ARE AN INEXPENSIVE WAY TO HELP AND GIVE FAMILIES A CHANCE TO CHOOSE HOW THEY SPEND THE MONEY.

Now, people have been paying back their debts, and Abdi Ali has welcomed customers back again. She received financial aid as well, and she used it to put her school-aged children – out of her nine in total – back to school and used the rest of the money to stock up her shop. ‘The drought is affecting us all, from cattle breeders to shopkeepers,’ she says.

The village of Abakaile is located on the Eastern edge of Kenya, in Garissa county, a few hundred kilometres from the Somali border. There are large refugee camps nearby, which is evident in Abakaile as well. Whenever Abdi Ali needs to acquire more things to sell, she travels to the wholesalers near the refugee camps.

Farhiya Abdi Ali founded her shop years ago by selling a cow and a few goats, and these days she no longer has any livestock. She is an important person in the village, because there are no other shops. ‘If my shop was closed down, the people here would not be able to buy anything,’ she says.

The shop has a solar panel on the roof, and it generates power for Abdi Ali’s refrigeration and a side desk filled with mobile phones and chargers; the shop is also a place where everyone can charge up their phones for a small fee.

In practice, a phone is the way that people receive their monetary aid. Kenya is a forerunner in mobile money, and all the villagers have cheap basic Nokia phones compatible with the M-Pesa mobile money service.

CASH IS HANDY

Cash aid is a relatively new addition to the Red Cross’s means of assistance, according to **Peter Abwao**, the head of communications for the Kenya Red Cross. Many areas still receive food aid, water and fodder for the livestock, but if these are available locally, sending money is in many ways wise, he feels.

These days, everyone has a cheap mobile phone, because mobile money is a convenient replacement for a bank account.

Some use the money to buy powdered milk for young children, while others pay for the school fees. Some need a doctor or medicine. ‘A third benefit is that cash assistance will always benefit the local economy.’

According to Abwao, the Kenya Red Cross Society has already helped more than 100,000 households through various means during the food crisis. ‘We have been distributing food, made repairs to the water supply, handed out cash aid and carried out health-related programmes, such as ones where malnourished children are provided with treatment in time.’

Abwao is sadly aware of the fact that this is nowhere near enough. ‘More than 4.3 million people are estimated to be in need of help,’ he says.

The Red Cross cannot support every individual in any of the villages. Therefore, it is important to identify the most vulnerable people. ‘However, in Africa people always function as communities. Many have said that whatever they receive they will share with their neighbours,’ Abwao says. ‘This is one of the ways they have learnt to survive droughts. By sharing, they ensure that the community will survive from one day to the next.’



THE WARNING SYSTEMS ARE ALREADY WORKING

The response to the current crises was initiated in 2021 when it began to look like the drought was becoming a concern. According to the Finnish Red Cross’s regional representative, **Maria Suoheimo**, the drought was not a surprise. She is posted in Kenya, but she also monitors the situation in Somalia and Ethiopia. ‘In these three countries, 20 million people are in need of direct food aid. The number of malnourished children has risen to 10 million.’

Suoheimo says that the alert systems for hunger crises and famine are already very good. The effects that the weather and sea water temperatures in the Pacific, among other things, have on droughts in East Africa are already known. Moreover, it was clear from early on that the war in Ukraine would hike up food prices and that the coronavirus pandemic had depleted the financial buffers of the poor. ‘Warnings about this drought were also received in advance. However, what we need is more early interventions,’ she says.

In other words, the alerts are received, but the responses do not

According to Maria Suoheimo, the warning systems are already working, but the efforts to prevent hunger are inadequate.



Peter Abwao is already seeing the effects of climate change in his work.

happen until the situations have already become serious. 'The world has vowed many times not to allow new famines to occur,' Suoheimo says.

TIMELY INTERVENTION IS POSSIBLE

Suoheimo says that droughts can be influenced through early intervention in many ways. 'If we resolve the underlying reasons, such as poverty and a lack of safety nets, we can do a lot to prevent a drought from turning into a hunger crisis.'

When meteorologists see in a weather forecast that the rainy seasons are about to fail, a lot can be done. Cash aid can be provided to promote people's incomes and help livestock cope with the drought with fortified feed and water.

Additionally, the Red Cross and the state of Kenya are running a programme in which the Red Cross buys livestock from breeders to be slaughtered before things escalate too far. Villagers receive fair compensation and the meat is shared by their community. 'People here want to have large herds, but when a drought hits their losses are huge,' Peter Abwao says. 'We have been educating

people in reducing the number of animals during droughts, and when the rains come they can once again have more animals. Many have begun to do so, even though it takes a while to adopt new ways.'

A FOOD CRISIS MEANS A FAILURE OF AN ENTIRE SYSTEM

According to Suoheimo, a food crisis is not a crisis of a single thing. 'In a way, it often means the failure of a food system for social and political reasons. It causes conflicts, but a crisis is typically worse in a volatile area than elsewhere.'

Because of this, long-term projects to improve a food system and food safety are important, but when a hunger crisis is acute other actions are needed. 'If the situation has escalated too far, immediate food aid is necessary,' Maria Suoheimo says. 'We are now at that point here in the Horn of Africa. People need water, food and cash for their basic needs.'

The Red Cross aims to help over 1.5 million people in Kenya, Ethiopia and Somalia. However, the acute phase will not improve in the near future. The World Meteorological Organization forecast in August

that the highly anticipated rains at the end of 2022 will fail, and that Kenya, Ethiopia and Somalia will see significantly less rainfall than during normal years.

Maria Suoheimo is worried that this crisis will remain with us for a long time, and preparations should be made for similar crises going forward, because they all stem from climate change. 'Droughts will occur more frequently and they will be longer in duration. People will not be able to recover from one before they are already faced with the next,' Suoheimo predicts. 'You could say that those people who have had the least impact on climate change through their actions are suffering the most from it.'

Peter Abwao from the Kenya Red Cross concurs. 'Climate change is reality, and droughts and the subsequent sudden floods will be common in the future. Now, we must meet people's basic needs, and the next step will be to come up with sustainable, long-term projects that can reduce future suffering.' ■

Are droughts in the hands of a higher power too?

Communications delegate Esa Salminen kept a journal during his reportage trip to Kenya in August 2022.

22 AUGUST

County Isiolo in central Kenya looks like what places in Africa often look like: fruit being sold by the roadside, sheep, cows and goats nibbling at bushes and grassland in search for food, often accompanied by young boys. But as we continue our journey to the pastoralists' land, the landscape changes. We arrive at sandy fields where the bushes and trees are grey and shrivelled up.

Our driver, **Abdul**, assures us that they will bounce back again as soon as it starts to rain. But there has been no rain. Four rainy seasons in a row have failed, and now people are waiting for 'the short rains', which refers to the shorter rainy season at the end of the

vate airfield. I remark that occasionally things do look quite good here. My Kenyan colleague replies that it is because of the high number of ranches in the area. They are owned by foreigners, mainly Brits, same as the airfield. The best agricultural land is being used to grow cut flowers, meat and vegetables for export. 'The Queen's home garden,' my colleague says jokingly. The joke sounds hollow, though, as people next door must go to sleep hungry.

Of course I know that the commercial farms provide jobs and opportunities to their poor neighbours, but it's a bit much that the offspring of former colonial rulers fly around the Mount Kenya National Park in

get to know the people living through this drought. Only a few goats remain, tugging at the dried trees; the rest of the livestock have either died or left in search of better pastures.

Dusty sand fills the air, and many people have a scarf in front of their face. 'I should've prepared better,' I think to myself and try to protect my camera and face the best I can. You mustn't kick any rocks in here as the region has a lot of snakes.

A few years ago, the village elder, **Ebenyo Muya**, lost all of his 48 cows when the men from the neighbouring tribe stole them. I ask whether he could not go and steal them back, as I remember from my anthropology classes that the Turkana and the

IT IS A BIT MUCH THAT THE OFFSPRING OF FORMER COLONIAL RULERS FLY AROUND THE MOUNT KENYA NATIONAL PARK IN THEIR PRIVATE PLANES WHILE PEOPLE CLOSE BY ARE PRAYING FOR SOME RAIN.

year. In normal years, it helps a little bit, but now even those drops of water would be a huge gift from the skies.

The road to Isiolo's county capital circles past Mount Kenya, which is the second highest peak in Africa. Close to the mountain it begins to drizzle. A specialist from the Kenya Red Cross says that there is never a shortage of water near the mountain.

Enormous commercial farms spread far and wide on either side of the road, and we also pass a small pri-

their private planes while people close by are praying for some rain.

The road crosses the equator. That means that we're driving along the planet's round midriff. Despite the drought, children in their school uniforms are walking by the road to school. At least somethings are still normal.

23 AUGUST

The village of Aukot in county Isiolo is the first one where we sit down to

Samburu are age-old enemies who nick each other's livestock to use as a dowry, for example. The old man laughs and says that he's already too old for that sort of thing. Otherwise, he's only happy about the fact that Catholic nuns are providing funding for the school lunches at the local school, because after school he too is often unable to offer the children that he cares for anything to eat.

I'm surprised to see women who have come to a water station to get





some water laughing and joking. One of them, Scolastica Esekoni, says that positivity is a choice. When she became a widow and a sole custodian of eight children five years ago, she decided that as a single woman she's better off being positive as she doesn't have a partner to support her. I don't think I'd be able to laugh.

At the end of the day, my nose is dripping with sandy brown blood. I realise that even a few days here have begun to hinder my thought processes. It's hot and dusty, and I get little sleep. I also skip lunch, bouncing along in a car and munching on nuts. As soon as I put my hotel key on a table, I lose it. When photographer **Terjo Aaltonen** starts to talk, I can't remember what I asked him.

24 AUGUST

We get up at the morning call to prayer, just after five o'clock.

The distances are vast, so getting an early start is a good idea. Extending the days at the other end is impossible, because it would be too dangerous to drive in the dark.

A herd of camels are working their way through some trees in the town. That too, I'm told, is a sign of a drought, as camels would normally prefer to keep themselves to themselves in the wild. The same applies to the giraffes and ostriches, a few of which have come to get some water.

A friend asks me on Instagram if being here is making me feel distressed. Perhaps a bit, but I've been in similar situations many times before. You get used to seeing poverty.

Somehow, wearing a Red Cross vest also helps with personal feelings. At least I'm part of an organisation that's doing something.

We meet **Abdi Buke Tinisa**, a herder who used to have 50 cows. Now, only 12 of them remain. These days, Sericho village has a few water stations for livestock, but that is not enough, because even though the animals are getting water, they do not have adequate food. A water point cannot feed the grass.

Tinisa is a beautiful man who smiles when he talks.

The village has a field nearby where cows are led when it becomes



evident that they are close to death. They walk past the carcasses of other cows and finally collapse themselves. Apparently, the smell is sometimes horrendous, but lions and other predators do not pose a great danger, as there is hardly anything left to eat on these cows.

Strange thoughts follow me into the realm of dreams, and I dream about the unbearable purposelessness of life.

25 AUGUST

A new day, a new county. This time, we're travelling to Garissa, a predominantly Somali-speaking area.

The Kenyans want to show us as many locations as possible during this week. In a way, that's understandable, but communications-wise one or two villages would be better, as we could delve deeper with the people. Now, we're spending way too much time sitting in the car and see the same drought everywhere.

Today is a big day for the counties, because the new governors are being sworn in. Kenya held general elections shortly before we arrived, but the name of the president awaits

for a final decision. A representative of the opposition took the election results to court, which has added some tension.

People do talk about the elections, but less so than I had imagined. Furthermore, they'll only talk to us about the subject when asked, and even then the tone tends to be rather neutral. Kenyans are proud about the fact that their election laws have been improved, and so far any restlessness has been avoided.

In the municipality of Afwein, **Halima Korane Abdi**, 55, says that it hurts not being able to provide food for her children. 'But it hurts even more to see my neighbours and friends suffer,' she says. The village chief tells us that she has a disabled child. Would you like to see?

Disabled people are often in the most disadvantaged position, and we ask whether it would be appropriate. Korane Abdi takes us to a separate building at the back of the yard. The disabled woman looks as if though she is perhaps 12 years of age, but apparently she is 35. This frail individual is scared of us and retreats to the end of her bed, covering her face.

Most plants in the village of Aukot are dry and shrivelled up.



Seeing her neighbours go through even tougher times saddens Halima Korane Abdi (left) the most.

I lower the camera to hang around my neck and say that we should leave. There is no need to scare the lady. The Kenyan journalist takes pictures and asks the mother to take care of her child for the pictures. It feels grotesque, but media operators in many countries believe that the shock factor sells. That applies to Finland too, I suppose. But I decide not to take any pictures. The fearful woman will remain in my mind without them.

We have a habit of asking people what they would like the future to bring. In the more remote villages, in particular, they tend to reply that there's hardly anything that can be done. God will help if he so chooses. They have heard about climate change, but they don't believe that people can do anything about it. Everything is in the hands of a higher power.

I also ask them if they're able to leave this place, but they tell me there is nowhere to go. It is equally dry everywhere.

26 AUGUST

The last day of photographing. My phone's run out of data allowance, my

skin is burnt and I've grown accustomed to days without lunch. My head is still not working normally.

The effects of climate change are an everyday occurrence here, but this is only the beginning. Terjo and I wonder what will happen here if the average temperatures do rise by, say, two degrees. What will it do to the rains and winds and, subsequently, to the animals and the people? Will large parts of Kenya and the Horn of Africa turn into an uninhabitable desert?

I asked a civil servant today what will happen if the next rains don't come. They replied: 'Wow. It's hard to find the words to answer that. If that happens, the rest of the animals here will die. And then the people.' It made me cry. Perhaps before the people join their dead livestock in these fields, they will leave? Or at least try?

27 AUGUST

Departure day. I'm chatting to journalist **Gerard Karanga** who has been tagging along. He is from Nairobi. A funny young man, but towards the end of the trip he has started to lose his smile.

PERHAPS BEFORE THE PEOPLE JOIN THEIR DEAD LIVESTOCK IN THESE FIELDS, THEY WILL LEAVE? OR AT LEAST TRY?

He says he feels ashamed. That is his primary feeling. Sometimes, he throws away food, and he has never before seen so vividly what hunger looks like.

He said that he used to think that a drought would look picturesque; dusty plains, people travelling across the sands, magnificent sunsets. 'But this isn't picturesque. This is a death-bed,' he says.

He too has thought a lot about the fact that people here put so much of their trust in God that it paralyses them. 'I do agree that God has given us this place to live, the planet Earth,' he says. 'But God has also given us a responsibility to improve his creation. Behind all of this is climate change, caused by man not God. We can all do something about it.'

I truly hope that there's still time for that. Even though I don't believe in God, I join the villagers in this prayer. I wish it would rain soon. ■

Floods and devastation seen from the sky

The satellite technology has come a long way in recent years. A Finnish start-up's radar satellites can see through clouds and are able to analyse damage. They can also be used to anticipate future disasters.

If an area is hit by a devastating flood, it is important to know what has happened, where the greatest need of help is located and what is the easiest way for the helpers to reach the location. The roads may be in poor condition, and a care home or an orphanage may be surrounded by water.

Moreover, cars may struggle to get to their destination, and even planes and drones are not guaranteed to reach the site fast, particularly in the remote regions of poor countries. And these areas often suffer the most, because the alarm systems seldom reach the people in time.

Satellites from Espoo could offer some help in the future.

Graduates from Aalto University have founded a company called Iceye, which currently has 21 small satellites orbiting around the Earth.

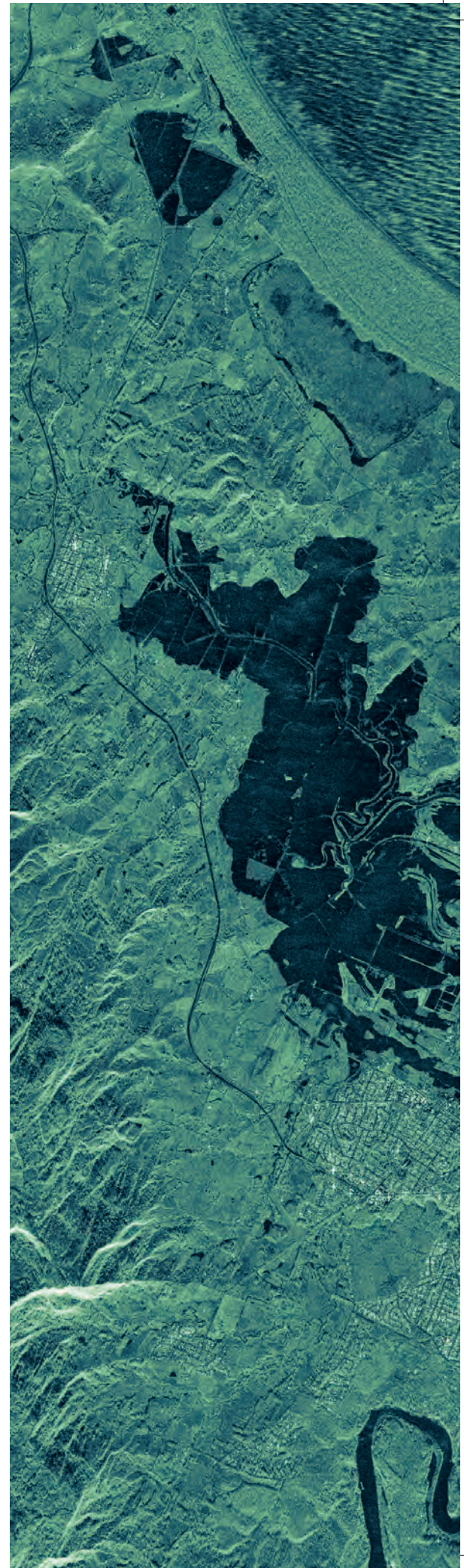
They are so-called SAR satellites, which means that they observe the planet with a radar instead of a more traditional camera. That provides plenty of benefits, according to Iceye's Vice President of Analytics, **Shay Strong**.

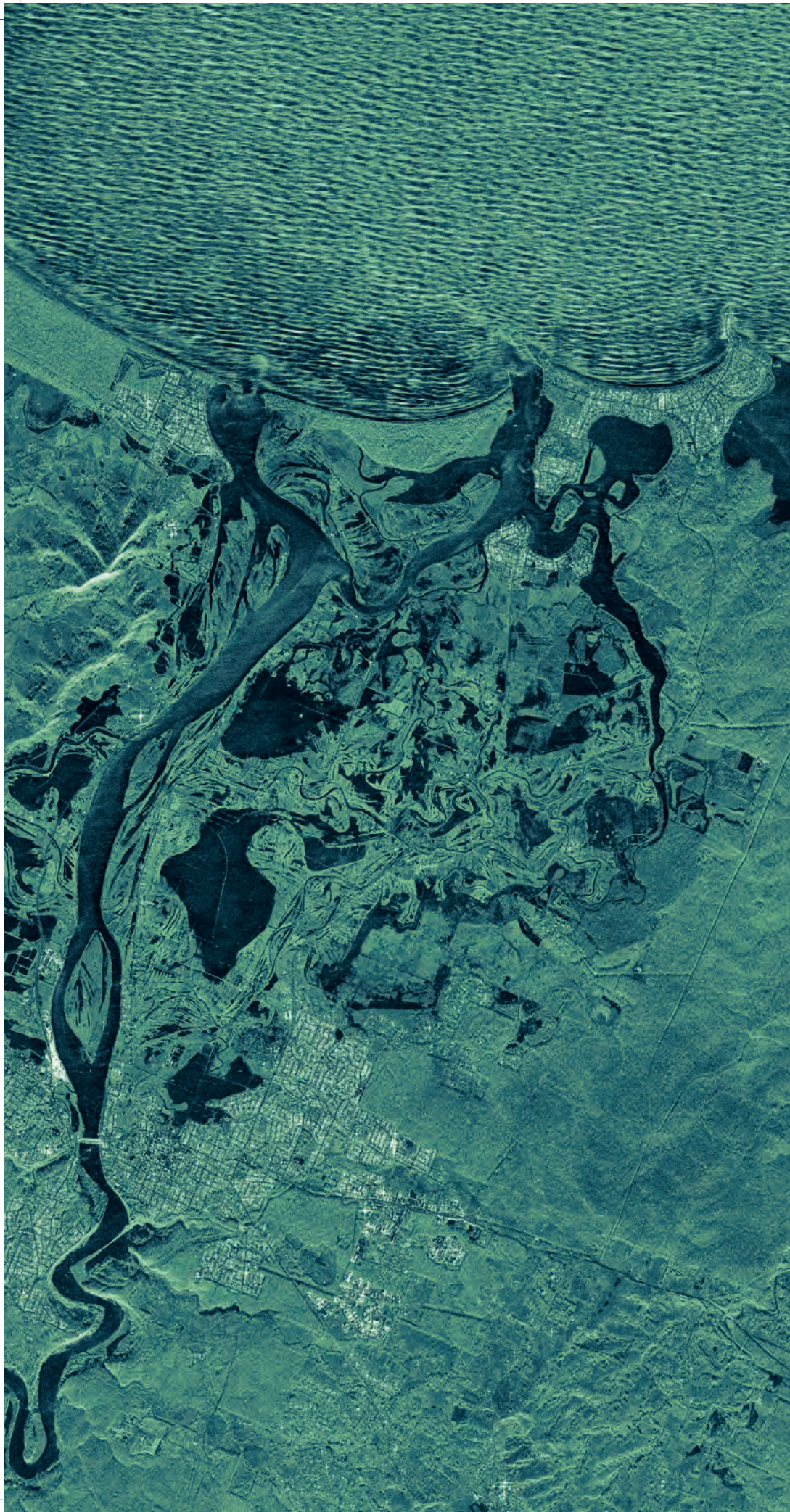
'A radar works both night and day and can see through cloud and smoke.'

Disasters typically involve storm clouds or smoke, but these are no problem for a radar satellite.

Strong says that Iceye images can become available within a few hours of the onset of a disaster, and for example the depth and extension of floods can be stated relatively accurately in 24 hours, even down to individual buildings.

Iceye's main group of clients at the moment includes global insurance companies, but the same data could also be used by aid organisations and





Top technology in humanitarian aid

Technological advancement and its latest applications are becoming a normal part of humanitarian aid, at least when it comes to the large operators' work.

Mobile phone technology, in particular, is being used in numerous ways: people in need of help can receive mobile money and vital information through their mobile phones, and location data from phones can be used to gain a better understanding of a situation, ensure the safety of aid providers and communicate the aid locations to those in need of help.

In addition to that, drones are being used at least in South Africa and Rwanda to transport medicine, vaccines and blood to areas that would otherwise be difficult to reach. Furthermore, the Mercy Corps intends to begin to 3D print prostheses and tools at the Zaatari refugee camp in Jordan.

Moreover, the UN Refugee Agency UNHCR has provided digital 'ID cards' to refugees by using the blockchain technology.

The use of technology always involves certain risks. The UNHCR has been issuing digital ID cards to Rohingya refugees fleeing from Myanmar since 2018. According to a review carried out by Human Rights Watch, the refugees were told that the cards are needed for delivering aid to refugees.

But the UNHCR disclosed the data it had collected to the state of Bangladesh, which in turn shared it with Myanmar – whose dictatorship the refugees were fleeing from.

Due to incidents like this, data security is one of the growing trends in the humanitarian aid sector these days.

According to Shay Strong, Iceye wants to learn to predict disasters with data.



other first response rescuers. Additionally, small-scale collaboration in connection with flood risks is already underway as part of the United Nations Development Programme in Ghana, to name an example.

PREDICTION IS POSSIBLE

So far, Iceye has focused on floods, but according to Strong the company has also initiated analytics on wildfires, wind damage and landslides.

'HUMANITARIAN AID WORK CAN BENEFIT FROM KNOWING MORE ABOUT THE RISKS IN MORE DETAIL AND BEING AWARE OF WHICH REGIONS ARE UNDER A THREAT AT A SPECIFIC TIME OF THE YEAR.'

'Among other things, we would like to be able to predict the movements of fire. I had assumed that some other company had already done this, but perhaps the reliability and resolutions of the images have not been sufficiently good until now.'

The technology has become more advanced quickly. SAR images can be used to see changes down to the millimetre, and analyse which ones are caused by ordinary things and which ones may be an indication of something alarming.

Human activity is also visible: new tire tracks in a desert, footpaths created by crowds of people and so on. This information may be useful when helping refugees or assessing border security, for example.

According to Strong, Iceye wants to learn to anticipate events through data in order to help authorities prepare for disasters.

'One good example is the Australian state of New South Wales, which

has had unprecedented flooding that has hit the same buildings several times a year,' she says.

By collecting data for just a few years, the company will be able to analyse which buildings will be at risk of being flooded in the future.

'Humanitarian aid work can benefit from knowing more about the risks in more detail and being aware of which regions are under a threat at a specific time of the year,' says Strong.

JUST LIKE GEORGE CLOONEY

The use of satellites is not an entirely new thing in humanitarian work. In 2010, actor **George Clooney** launched a project which used satellites to predict and prevent violent incidents in Sudan.

Satellites have also been used in other humanitarian work.

The Norwegian Centre for Humanitarian Studies published a review in late 2021, stating that



Detailed information can be gained of flooding quickly after the water has started to rise. In addition to that, a will and resources are needed to repair the damage.

satellites are being used in rescue operations following earthquakes and volcanic eruption, and to monitor rebuilding, among other things. Their images also show which direction lava is flowing and who should be rescued.

Furthermore, satellites help predict droughts and famines, because the images illustrate weather phenomena, dry regions and even soil quality, and satellites are already being used to analyse large-scale forest fires.

In 2014–2015, the organisation Doctors Without Borders added over 90,000 houses on the map of Guinea, previously not included on the traditional maps. That was helpful when preventing the spread of Ebola.

INFORMATION IS NO REPLACEMENT FOR POLITICAL WILL

Although information is important, on its own it is not enough.

George Clooney's satellite project has already ended. In an interview in 2020, its director of operations,

Nathaniel Raymond, told the Foreign Policy magazine that the project gathered and analysed data as planned. However, the desired humanitarian results – helping people and preventing violence – could not be fully achieved.

'Documentation cannot replace political will,' Raymond told the magazine.

Information should also be utilised. Raymond also told the magazine that for example in Sudan satellite data was used to warn about an impending attack in the city of Kadugli in 2011, but the international public did little to avoid it.

Shay Strong also feels that decision-makers can only be helped to a certain point. For example, Iceye took part in a project that studied deforestation in Brazil. 'We can tell them where trees are being felled daily, but the Brazilian government must decide whether to use this information or not.'

A company can sit down with a government and guide them on the use of information, which is what Iceye has done with insurance companies. It has become clear that the information must also be as useable and applicable as possible.

'We can't expect a client to get a PhD in order to understand our data,' Shay says, laughing.

'Instead, we must create charts, maps and phone applications, for example.'

This takes a certain amount of user research, and a service provider must understand its client's needs. When working with insurance companies, Iceye has hired specialists and tried to understand the ways they work as much as possible.

'I would assume that the same approach would work with other operators that could utilise this data,' Strong says. ■

The curse of four crises

Many have said that when the severity, extent and the related threats of the coronavirus pandemic became apparent in spring 2020, they felt scared for their lives. People were concerned about whether their country's or the world's financial and other resources would be enough to respond to the challenges posed by the virus.

Large-scale mobilisation was carried out in the fields of medicine and finance. Printing works around the world seemed to be printing out 'new' billions in order to meet the needs of the global economy, teetering on the edge of a precipice. Humankind literally changed its behaviour over night. All of a sudden, hands were being washed like there was no tomorrow, faces were hidden behind masks and, wherever possible, life was limited to the confines of the home.

The pandemic was a crisis that took seamless coordination between all of the world's resources. And even though some kinks remain to be ironed out, the mobilisation of these resources was done at a historical level.

The World Bank has calculated that by 2024 the coronavirus will have cost the world economy a total of 12.5 trillion US dollars. A trillion equals a million millions... As a comparison, the world's combined

gross domestic product in 2020 was 85 trillion dollars.

LATEST CRISIS SYNDROME

It is highly understandable that the most current crisis takes up most of the capacity of our brains and hearts, putting everything else on the back burner. This happened during the pandemic, when it made us temporarily forget about the climate and nature, and more recently the coronavirus itself has followed the same fate: the main focus in Europe has shifted from the pandemic to the conflict in Ukraine.

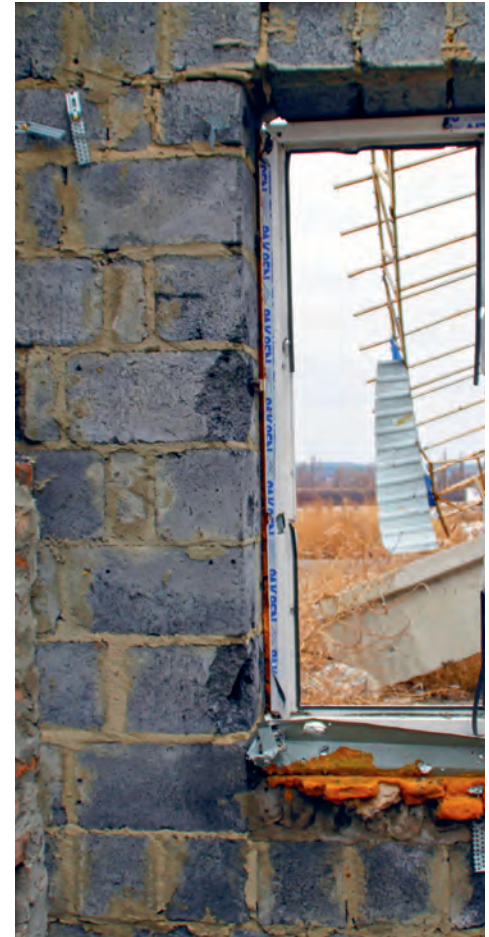
This so-called latest crisis syndrome has hidden the reality of the escalating crises that humanity faces. Instead of a single all-encompassing crisis, we have four overlapping ones, all of which are simultaneously demanding all our available mental and material resources.

A dark storm cloud is looming behind the Ukrainian crisis and the coronavirus pandemic, and climate change and loss of biodiversity are unfolding both together and separately. They are crises that threaten life on the planet, but the problem is that their process is far too slow for the news flow. On the other hand, they are moving far too quickly for humankind and the future on Earth.

Our awareness of climate change and loss of biodiversity is built like a

A shelled house in Ukraine: the conflict in Ukraine.

A woman planting mangroves in Thailand: mitigating loss of biodiversity.



Shocked people looking at one of the worst landslides in Nepal: the many faces of destruction caused by climate change.

An FRC volunteer directing people to a vaccination centre: everyday life with the coronavirus.





FOUR CRISES 1-2-3-4

Each one of these on its own will take all of our attention, but we must be able to cope with them all.



puzzle. Somewhere there is a flood, while elsewhere the temperatures exceed 50 degrees. We are concerned about the destruction of the Amazon rainforests. Are the pollinators disappearing?

Individual titbits here and there, but no full picture. Climate change does not happen in a day or follow a clear, direct path. Similarly, biodiversity does not disappear all at once, and we have not even had time to identify all the lost species yet.

Instead of focusing on the latest megacrisis closest to us, we should aim to look further, all the way to the horizon and beyond it. Only then will we be able to see the true challenges that we face and understand what the future demands of us, both collectively and individually.

ECOSYSTEM SERVICES PROVIDED BY NATURE

Of the two processes gradually evolving, the loss of biodiversity has received less attention as it is more difficult to perceive.

The OECD organisation for developed countries has calculated that nature provides the humanity with so-called ecosystem services worth 125–140 trillion dollars a year. In other words, more than one and a half times the overall annual gross domestic product of the entire globe, produced by us, the humans.

These ecosystem services include a multitude of beneficial elements, such as pollinators, flood protection by mangroves and wetlands, and the value of utilized natural resources.

In addition to the benefits gained from nature, we also see our actions or lack thereof as losses. Due to a loss of biodiversity, we miss out on 4–20 trillion dollars' worth of ecosystem services every year, according to the OECD. Furthermore, soil degradation results in an annual loss of 6–11 trillion.

Based on purely economic estimates, the promotion of biodiversity is 10–100 times cheaper than the cost of neglecting it will be.

In order to understand the scale of the challenge that we are facing, it is vital that we understand the seamless nature of the three task levels connected to climate change.

We must be able to limit the rise of temperatures to as low a level as possible. Unless we succeed in this, we will not have adequate resources to prepare and adapt. Even in the best-case scenario, critical problems will fall through the cracks at the first level.

We must also be able to carry out as many measures as we can to prepare and adapt. If we fail to do so, we will not have the resources to respond to the full effects of the subsequent disasters and catastrophic changes. Even the current disaster level is too high in terms of the available financial resources.

We must succeed to an adequate extent on all three levels. The alternative is an uncontrollable humanitarian emergency and chaos that will ensue. Therefore, our gaze and awareness must reach from this moment to the horizon and beyond.

As stated above, we are dealing with at least four global crises, each of which seem to require all of our available resources at least in the sectors of swarm intelligence, psychophysical resilience, science, product development and finance.

The role of the global economy in all of this has not been discussed adequately. If you were to do an internet search with the words 'What is the purpose of the world economy?', the simplest answer you would receive would be 'Trade'.

In this day and age, the world economy is sorely required to do more than just serve as a trading tool.

So what if the purpose of global economy was – to put it slightly naively – to fund or facilitate whatever humankind is capable of? Would anything change?

It should. Big time. ■

New crises hidden by megacrisis

Scratching the surface of the four megacrisis described here reveals new challenges. In addition to the actual death and destruction, the consequences of the crisis in Ukraine include the new winds blowing in the geopolitical landscapes, the problems with the price and availability of energy, a swiftly rising inflation and an emerging food crisis that may turn out to have a more extensive social impact.

Resilience is constantly required in the health care sector. In addition to the acute coronavirus pandemic, we should be able to improve our ability to face the next pandemic at some point and resolve the increasing resistance to antibiotics.

Instead of talking about a curse of four crises, we should perhaps be talking about eight or ten crises?

Furthermore, crises tend to occur side by side and have an impact together. For example, Somalia is currently suffering from a drought and a resulting famine, and the coronavirus that is still spreading is accompanied by climate change, a loss of biodiversity and the effects that the conflict in Ukraine is having on the world's food situation.

WHAT IF THE PURPOSE OF GLOBAL ECONOMY WAS TO FUND OR FACILITATE WHATEVER THE HUMANKIND IS CAPABLE OF?

Risk Zones has been updated!

A complete list of exercises and facts about the conflict in Ukraine

The Finnish Red Cross provides schools and educational institutions with diverse learning materials in English, as well as support and tools for organising thematic learning projects. We have put together free learning material at sroppimateriaalit.fi for teachers to use in their work. The website contains easy-to-use material on global education, friendships and the skills required, first aid and health, rules of war and equality. They are available for all age groups from early childhood education to adult education, all on the same digital platform.

TOPICAL THEMES

Our aim in this ever-changing world is for the Red Cross learning materials to offer support with discussions on current topics. That is why the Risk Zones learning materials on global education now also include a section of the conflict in Ukraine. Students of all ages have questions about the conflict, and the section can help you discuss the conflict's background and process, its effects on the refugee situation in Europe and the ways in which aid work is carried out in a conflict zone.

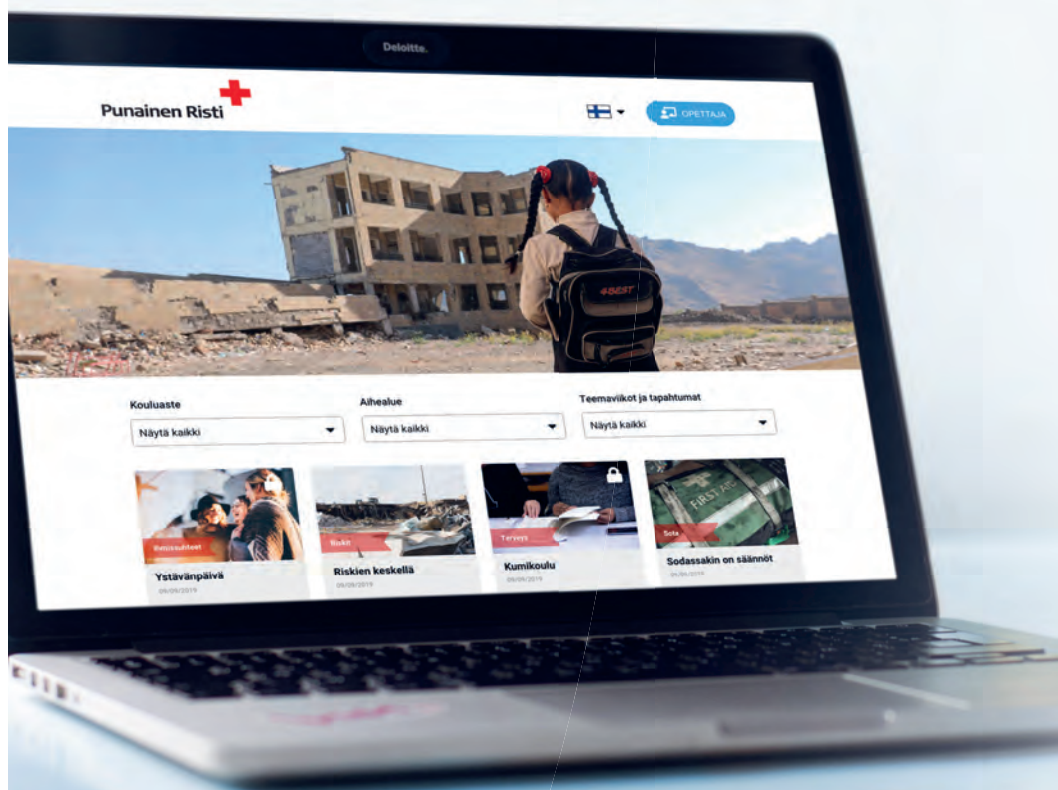
AN INCREASING UNDERSTANDING OF THE WORLD

The Risk Zones learning material can also be used to learn about many of the risks present in the world and how we cope with them. The material includes facts, exercises, images, videos and true stories about earthquakes, tsunamis, cyclones, drought, flooding, climate change, the coronavirus, cholera, Ebola, HIV and AIDS, conflicts, life as a refugee, wildfires, water, food and, as the latest addition, the conflict in Ukraine. With the learning material, children and young people can learn to understand the world a bit better. It will help them see the cause and effect behind challenging situations and encourage them to seek solutions to these.

EASY TO USE

As a new feature, the Risk Zones materials include sets of exercises for the students, which make the learning material much more useable. The students may complete and check some of the exercises independently, while others should be done with a teacher through a dialogue. The exercises have been designed to meet the needs of teachers and different learners as much as possible. We have also made it possible to use the same material for learners with special abilities.

The sets are easy to use without much planning, and individual sections can be used on their own. The Risk Zones learning material is also available at the service in Finnish, Swedish and simplified Finnish. ■



Kenyan Abdi Buke Tinisa herding his livestock in the village of Sericho, which is suffering from a drought.

Image: Esa Salminen

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Heureka

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