



Annual Report 2020





Bucket distribution in Vanuatu / Cover: Inclusion workshop in Iraq

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Field Ready's Mission

Localizing Manufacturing to Transform Humanitarian Aid

Our approach stands out in the international aid sector.

Field Ready's mission is unlike that of any other aid organization: To help disaster-affected people make the essential items they need, where and when they need them. This saves lives, reduces suffering and increases resilience.

We do this by transforming logistics through technology, through design and by engaging people in new ways.

We make useful items where they're needed to solve problems locally. We pass on these skills to others through capacity-building and technical assistance.

In this way, we're pioneering innovative approaches to the toughest challenges - regardless of the sector. The impact of this is dramatically improved efficiency - delivering aid better, faster and cheaper.



Leadership Message

Field Ready responded in a year of global crisis, a crisis that had an impact on our ongoing programs and in the fight against the COVID-19 virus. This year also highlighted the need for - and our commitment to - racial and gender equity. With nearly 168 million people requiring humanitarian assistance in 2020, there's been a lot to do and we're proud of all our team members for doing such significant work.

Strategic Highlights

For the first time, we directly assisted more than 100,000 people and - through them - we reached nearly a million people. The year saw us working in more countries and helping more people than ever before. Given the multiple crises we all faced, this is truly an extraordinary outcome.

In response to the pandemic, we quickly pivoted our programs appropriately. In fact, we were already working to help contain a measles outbreak in Samoa at the start of the year when the potential impact of COVID-19 became evident. Our programming expanded to include personal protective equipment (PPE) distributions in the U.S. and by the end of the year, we devised a four-country program – in Bangladesh, Iraq, Kenya and Uganda – supported by the multi-donor-funded Humanitarian Grand Challenge. We also continued to push the boundaries of innovation by linking local businesses to relief and reconstruction efforts, developing new technologies and ways to support ecosystems around local manufacturing (e.g., through the Internet of Production Alliance). As much as we support the new and emergent, we also work to promote development and sustainability (please see Page 18 for how we support the SDGs).

Operating & Financial Highlights

We started the year by recognizing the extraordinary contributions made by Jean Matthias, Field Ready's Operations Manager in Fiji, as our "Humanitarian of the Year." We continued with our ongoing programs in the Middle East and Asia while expanding with mass production of locally made WASH-related items in the Pacific and responding to two tropical cyclones. Toward the end of the year, we also supported partners in Beirut following the tragic blast there. In this Annual Report, you will find these highlights and other specific achievements from our programs. In 2020, we raised and successfully managed more than \$3 million in resources with the absorptive capacity for more. The report covering these funds is found on Page 21.

Looking Ahead

We will continue to do all we can to help stop the transmission of COVID-19 while advocating for reform and justice. A key part of our approach is passing our knowledge and skills to others in both traditional and new ways. We will continue to train thousands of people a year and propel efforts to spread knowledge of our approach in existing and new areas such as East Africa.



Eric James, PhD
Co-Founder/Executive Director



Conrad C. Nowak, Esq
Board Chair

Around the World

Created

132

Unique
product
designs

More than

103k

People directly
impacted

Nearly

1M

People
assisted
globally

More than

13,000

People
assisted in
Syria



Distributed

3,500

PPE in
the U.S.

Nearly

5,000

People
trained
worldwide

More than

22,000

Items distributed
in the Pacific



Programs/Registered Offices



Partnership/Collaborative efforts



Registered offices for resource mobilization and administration



University Training
*Buy (Thermometer, Disinfecting
Face masks, gloves, Soap)

* STICKS (K) (S)

* Acrylic Partition
and Sanitization Station
or open

facturing Survey

handling
er gathering ideas

Hand sanitizer in Iraq

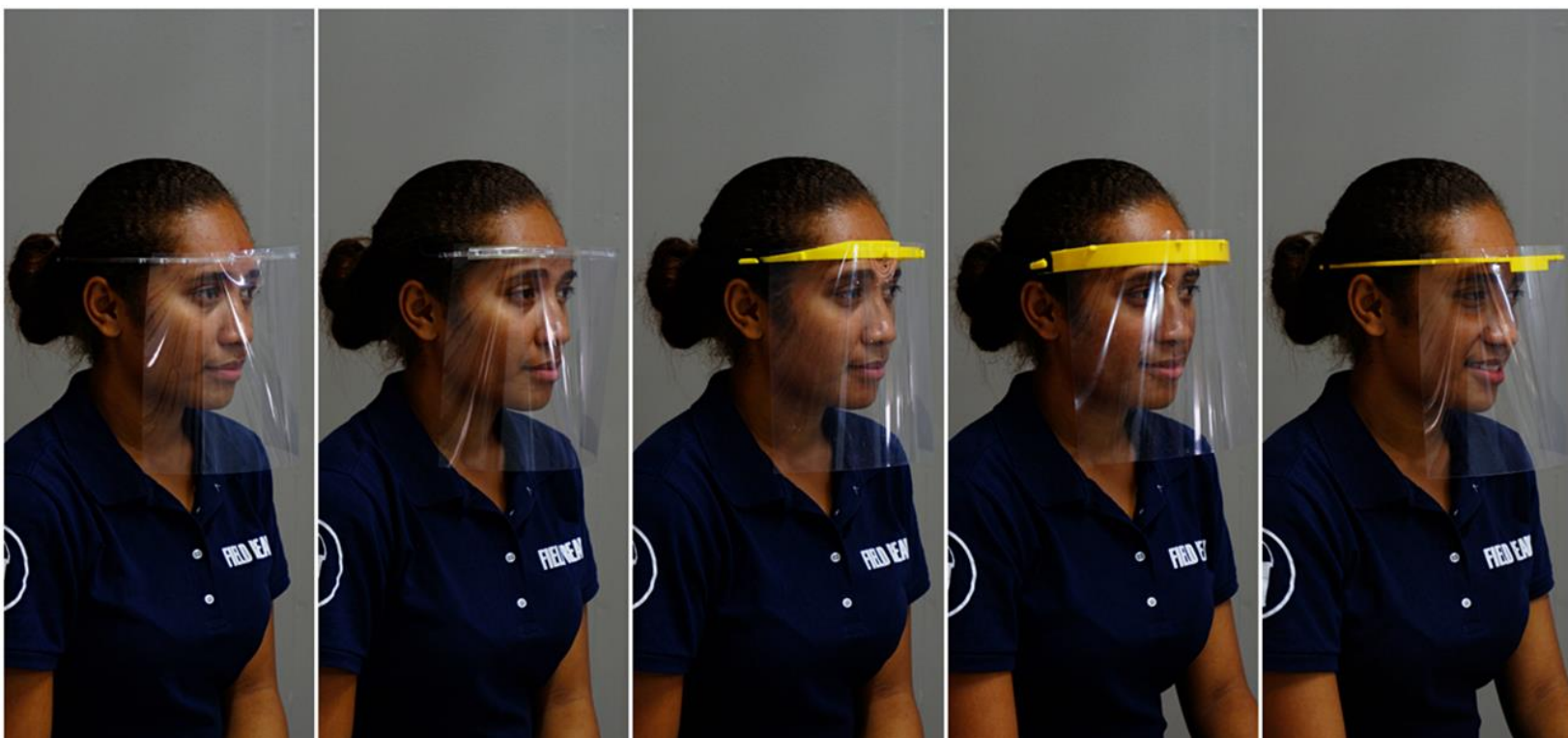
COVID-19 Response

We make critical items locally. Through our work, people can get what they need where and when they need it - which encourages sustainability and economy-building. Our responses are tailored to each unique community. With lockdowns and the closure of many countries' borders, some very innovative approaches were necessary to meet the aid challenges we encountered – but innovate we did! We started 2020 working on disaster risk-reduction in the Pacific, where our epidemic response and prevention throughout the year help rural communities in the South Pacific stave off other infectious diseases such as measles, typhoid and cholera.

With local partner manufacturers, we helped make PPE and distributed it to thousands of first responders who had little access to protective equipment – those in camps serving Rohingya and Syrian refugees and those in the American Southwest serving Native Americans on reservations alike expressed deep thanks for our efforts to deliver PPE and help them stay healthy. We also aided smaller groups in Kenya, Uganda and the U.S. who focused on producing cloth masks for community members in need.

The end of 2020 also saw the kickoff of our four-country COVID-19 response “Protecting the Frontline,” a program to connect manufacturers of PPE with first-responder organizations that need PPE in Bangladesh, Iraq, Kenya and Uganda. Using a data system populated by the Humanitarian OpenStreetMap Team (HOT) and NeedsList, the program got off to a strong start at year's end with organizations signing up to be matched with local manufacturers who could provide them with face shields, masks, goggles and other PPE.

Our work in Bangladesh provides a good example: After the Bangladesh government put out a request for help, Field Ready team members and the local product-design company Involute Tech BD quickly began developing prototypes of the goggles, made them on a 3D printer and began testing and getting user feedback. Once officials approved the design, the team began producing tens of thousands of the goggles for use primarily by first responders in the Cox's Bazaar Rohingya refugee camps. Working with FabLab SAU, the team also produced tens of thousands of face shields needed for Bangladesh healthcare workers using 3D printers, laser cutting and CNC processes.





Bucket distribution in Vanuatu



Face shield distribution in Chicago

Saving Lives in Syria

Ten years of conflict in Syria has created a humanitarian disaster, with millions of civilians displaced. But the other underlying disaster there – the destruction of 80% of the country's hospitals and medical facilities that served more than a million people – became especially critical in 2020 when COVID-19 worsened the crisis.

Field Ready began a multi-tiered, medical-device repair project in 2020 to help restore the region's healthcare system. Supported by a Humanitarian Grand Challenge [Creating Hope in Conflict](#) award, we surveyed 50 area hospitals to learn what equipment, supplies and infrastructure medical workers needed most to deliver safe, high-quality health services. Our team used that information to begin repairing and locally making critically needed medical devices and equipment using digital design, 3D printers and their own skill.

By the end of the year, we repaired more than 30 medical devices including infant incubators, air compressors, a defibrillator, microscopes, anesthesia machines, blood-pressure cuffs and a ventilator. During the course of the program, Field Ready plans to add 35 new devices and 200 replacement components to [our catalog](#) for open-source use. The team will then work with key partners to manufacture the devices and replacement parts locally, helping to grow long-term sustainability and expand the market for the products.



Medical repairs in Syria



Medical item distribution in Syria

Making a New Iraq

In addition to opening the new partner spaces IOT Makerspace in Baghdad and Erbil Innovation House (the renovation of the previous Erbil Makerspace) in 2020, we began preparing the build-out of a brand-new new makerspace in Sulaimaniyah. Construction, innovation and creativity has been at a fever pitch at each of the spaces as they welcome community members and start-ups for workshops, networking and plenty of technical trainings.

The makerspaces together welcomed hundreds of participants to trainings that varied from highly technical and detailed skills instruction (such as Autocad and Arduino) to fun design classes. Although the trainings were virtual during lockdowns, the increasing interest in the spaces indicates that 2021 will be very busy there.

Throughout the year, each makerspace welcomed numerous guest speakers for valuable presentations and discussion panels on careers, innovations and skills-building.

In a joint venture with Al Turath University, Erbil Makerspace, MosulSpace and IOT Makerspace together hosted Field Ready's first design competition in 2020. Over several months and three competitive rounds, 75 initial entrants had to design assistive healthcare devices that addressed everyday challenges for disabled people.

By September, three winning Iraqi designers came up with groundbreaking ways to make life easier for people with physical challenges. Each of the winners received prizes and will see their designs prototyped in 2021.



Conference in Iraq



Foot-operated tap installation in Fiji

South Pacific Response

Despite two cyclones, an epidemic and a disease outbreak in the South Pacific on top of the worldwide pandemic in 2020, we experienced both strong team and programmatic growth in the region. In Samoa - which suffered a measles outbreak in the early part of the year - we worked with UNICEF, the Samoa Ministry of Health and National University of Samoa students to install handwashing stations and foot-operated taps in medical facilities, health centers and Samoa's airport to help prevent disease transmission.

The handwashing stations were designed and constructed at the Fiji makerspace in Suva: they included a permanent foot-operated model for health facilities; a semi-permanent one for places without piped water; and a fully portable temporary one used for evacuation or displaced populations during a disaster. We were able to complete 15 installations before having to remove our team from Samoa as the country began its lockdown in March 2020 – and hope to resume installations in 2021.

Category 5 storms Tropical Cyclones Harold (in April 2020) and Yasa (in December 2020) delivered deeply felt blows to the region, hitting Fiji the hardest (and leaving 120,000 residents without shelter) but damaging Vanuatu as well. Despite border closings, we marshalled in-country partners to help us respond and provide drinking-water buckets, handwashing stations, latrines, shelters and privacy screens to communities and residents devastated by the storm damage. A new, partially completed workshop in Vanuatu - scheduled to open fully in 2021- was especially helpful for construction of the handwashing stations needed there.

With funding from USAID/OFDA and UNICEF, we also continued our support to the Fijian Ministry of Health & Medical Services in 2020 to improve sanitation in the country and help residents learn about innovative WASH solutions. Delivering more than 2,500 latrines to Fiji MOHMs and 1,000 to KOICA, we also successfully completed installation of several hundred of our locally made latrines in rural villages all over Fiji.

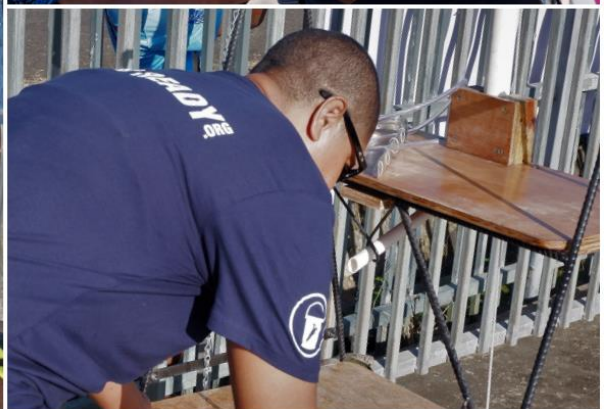
This latrine's design is unique - it was developed and made in Fiji with input from users to ensure it would be ideally suited for the region's challenges. The final products were mass produced in conjunction with Rotomould Fiji, demonstrating a special public-private partnership. Efforts to provide cyclone relief and sanitation improvement in both Fiji and Vanuatu will be continuing throughout 2021.



Latrine distribution in Kadavu, Fiji

Humanitarian of the Year

As we do at the close of every year, we named our Humanitarian of the Year on New Year's Eve 2020; this year, we awarded the honor to Fiji Operations Manager Jean Matthias. Jean's compassion, tireless dedication to aiding others and her courage during the 2020 cyclones serve as an inspiration to all of us – Congratulations Jean!



Handwashing promotion with the Prime Minister of Fiji



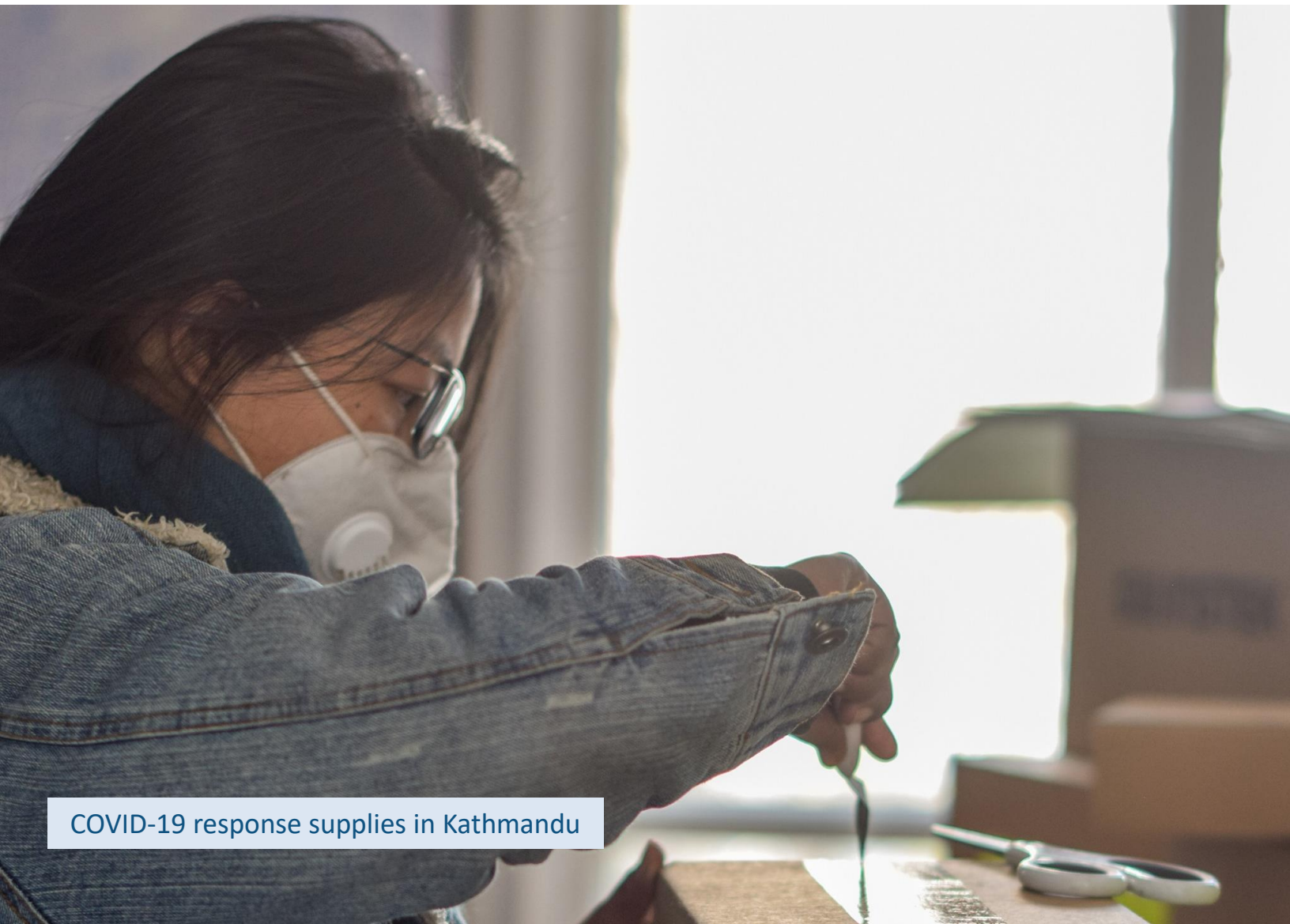
Our workshop in Fiji

Nepal Partnerships

Our Nepal team developed Field Ready's first specific product in response to the COVID-19 pandemic in early 2020: an elbow-operated tap that helps keep hands off faucets and reduces the transmission of germs during handwashing. The tap was conceived, designed and manufactured in Kathmandu and shared globally.

Team members also prototyped hands-free locks, handles and taps for the two washrooms at the facility we share with [Nepal Communitere](#), our partner NGO in Kathmandu. We also helped organize a short COVID-19 Prevention Training of Trainers (TOT) with Nepal Communitere, which included handwashing promotion and demonstration, as well as WHO messaging about mask use, cleaning surfaces, an overview of symptoms and testing.

The Nepal team also spent much of the year helping to get FabLab Nepal ready for its early 2021 opening. The UKAID seed-funding for the Fab Lab enabled an investment of hundreds of thousands of pounds in the Fab Lab and its programming from supporters including Field Ready, Solidworks, Fab Foundation, the MIT Center for Bits and Atoms, the Royal Academy of Engineering and Dassault Systemes U.S. Foundation. That investment allowed our team to help make the site more accessible for physically challenged people, installing high-end tech at the facility. As the year ended, the promise of FabLab Nepal was becoming reality with a February opening scheduled. In five years, we hope to have helped Fab Lab Nepal grow a network of 75+ FabLabs across the country to train young engineers in the technologies of the fourth industrial revolution. By helping to set up this "Digital Himalayas" movement, we helped meet community needs and establish disaster response hubs when necessary.



COVID-19 response supplies in Kathmandu

Innovation & Development

Field Ready supports a range of initiatives and projects around the world that are literally changing the face of international assistance. Here are a few of the initiatives we worked on in 2020:



IoP Alliance

Right now, worldwide demand for goods is met through centralized manufacturing and globalized supply chains. While there are advantages to this in stable times, in times of disaster it creates bottlenecks, raises costs and drives inequity. Building on current and emerging technology, there exists an opportunity to bring together a global and sustainable network for local manufacturing. The Internet of Production (IoP) Alliance brings together people from around the world to build open infrastructures enabling anyone, everywhere to participate in production. We believe that the future of production lies in decentralized manufacturing based on shared knowledge, allowing us to deliver products faster, made from locally sourced materials and with less ecological impact. Field Ready is actively working toward a future of production defined by decentralized manufacturing, creation of standards and shared knowledge: this is being done through the Open Know-Where, Open Know-How and the Right to Repair initiatives. We are building open infrastructures that enable anyone, everywhere, to participate in production. For more information, please visit: www.internetofproduction.org



Current approaches to winterization assistance rely heavily on distribution of blankets, stoves and fuel. This increases families' living costs, incurs health risks and negatively impacts their environment. The Waste for Warmth partnership is dedicated to changing shelter winterization aid by enabling people to turn local plastic waste into solutions for warmth and security. Working with the Polyfloss Factory and Engineers Without Borders, with support from Innovation Norway, our aim is to help displaced people overcome harsh winter conditions. This initiative uses plastic waste to make insulation products for warm and safe shelters, and provide work opportunities for displaced people. For more information, please visit: www.waste4warmth.org



Field Ready carries out a range of activities within the broad banner of humanitarian assistance - but there is no distinct line between that area and international development. In fact, many actions carried out by Field Ready directly contribute to the Sustainable Development Goals (SDGs). Field Ready participates in the UN Global Compact and is an implementing partner of UNICEF. Please see the next page for examples of how we've made an impact to the SDGs over the past year.

Contributions to the SDGs



Field Ready directly supports inventors, entrepreneurs and SMEs. We provide technical assistance and carry out other programming for job creation and new livelihoods.



Field Ready is part of the 4th Industrial Revolution and is pioneering a new approach that relies on technology, design and engaging people locally to foster resilience and empowerment.



Field Ready makes hydroponic growing and vertical farming systems, improves food preparation and fabricates other items used to address nutrition and problems related to hunger.



Field Ready's activities, including supporting local and disadvantaged businesses, take place in and for the betterment of communities and areas that major economies overlook. We specifically focus on communities of most need.



Field Ready has made dozens of medical-related designs and assists thousands of people each year in the healthcare sector. We have also created critical items such as life-saving search and rescue equipment.



Field Ready most often works in urban areas and in ways that traditional aid has had challenges addressing; examples include tools, improved shelters, waste disposal and items increasing inclusion.



Field Ready is dedicated to passing on knowledge, training others and supporting state-of-the-art education. Each year, thousands of people receive technical support and skills building from Field Ready team members.



Field Ready's approach stresses appropriate technology that embeds efficiencies, reduces waste and encourages up- and recycling as well as other sustainable practices.



Field Ready designs and implements projects with and for women and girls in disadvantaged situations, thereby challenging unfair social norms and increasing participation and opportunity.



Field Ready's work localizes manufacturing and bypasses huge portions of traditional supply chains, thereby significantly decreasing carbon output and negative environment impact.



Field Ready has a decided focus on WASH activities – at the individual, institutional and community levels – that provide clean drinking water, increase sanitation and promote hygiene.



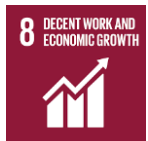
Field Ready's programming improves life on land by reducing the number of logistical trips need in aid operations, offering improved growing systems and curtailing the need for cooking fuel.



Field Ready has repaired damaged solar panels after disasters, fixed electrical systems, made wind turbines locally and increased access to sustainable heating, cooking and insulation methods.



Field Ready promotes openness, fairness and alternatives to violence by providing a means to build brighter futures together through design/making, joint problem-solving and economic activities.



Field Ready enables productivity and increased employment opportunities for youth by supporting makerspaces and related livelihood activities in places recovering from disasters.



Field Ready partners with a wide range of stakeholders, thereby improving technology use, supporting local businesses and making aid better, faster and cheaper than current alternatives.

Notes:

- 1) Details about the Sustainable Development Goals (SDGs) can be found here: <https://sustainabledevelopment.un.org/sdgs> (SDG #14, Life Below Water, is not covered here)
- 2) Field Ready works across different sectors and in contexts before, during and after crises worldwide. The examples mentioned above are but some examples. For a lot more, please visit: <https://www.fieldready.org/>
- 3) Field Ready maintains a catalog of parts with over a 130 separate designs. This is available here: <https://www.fieldready.org/resources>
- 4) To understand the relationship between humanitarian relief, reconstruction and development, see Field Ready's Technical Brief #1 available at: <https://www.fieldready.org/resources>

Partners and Donors



Coming together is a beginning, staying together is progress, and working together is success. – Henry Ford

We are grateful to all of our donors for their generosity. Because of your contributions, we are able to help relieve suffering to those in need. Thank you for the ongoing support and for making this work possible.

Donors

PayPal Giving Fund	Hui Xu
Mary Tyszkiewicz	Mason Todd
Perumal Sambasivam	Janaki Ranpura
Toby Smith	Thomas Wells
Chris John	Theodor Danilov
Jason Wild	Johanna Kramer
Ashley Eggart	Dave Holloman
Alice McBroom	Jonathan Will
Claire Olsen	Conrad Nowak

In-Kind-Donations

Solidworks
UNLEASH
Jackie Moore/Chicago Knights
Massive Small Manufacturing Ltd
Building Momentum
Mailchimp
TechSoup / Microsoft
Google
Airtable
Institution of Engineering & Technology
Geovation
Shuttleworth Foundation
University of Pennsylvania
Re:Coded
Sue Kovach
Sallie Stiens
Shuttleworth Foundation
Catherine Hebson
Grand Challenges Canada
Eric James
Three Grey Monkeys
Fab Foundation
Mavrix Innovations Ltd
Rotomould Fiji
Plan International
UTS Rapido Social
WFP Innovation Accelerator / USAID
World Vision



Face shield distribution in Chicago

Financial Statement

	Amount (USD)
Support and Revenue	
Contributions and Grants	2,388,512
In-Kind Donations	597,720
Other	33,980
Net Assets released from restrictions	-
Total Support and Revenue	3,020,212
Expenses	
Program Services	2,080,536
Management and General	54,688
Fundraising	21,300
Total Expenses	2,156,524
Changes in Net Assets	-
Net Assets at Beginning of Year	50,804
Net Assets at End of Year	272,875

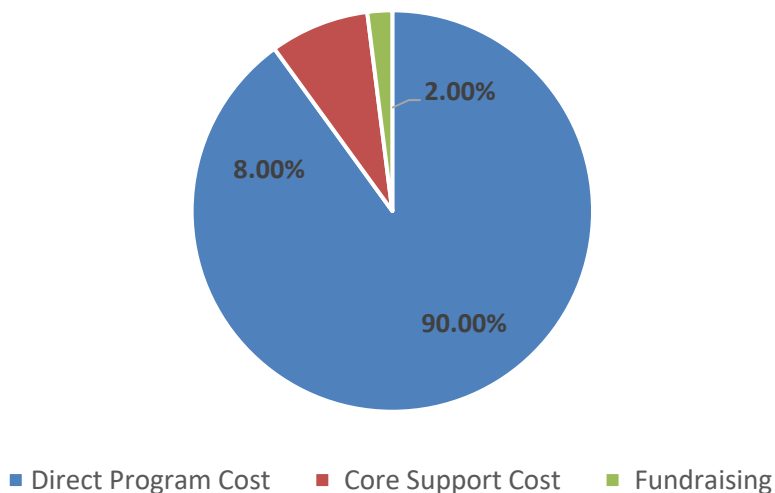
Revenue by Recent Year

2019	\$1,417,442
2018	\$1,006,649
2017	\$ 862,004

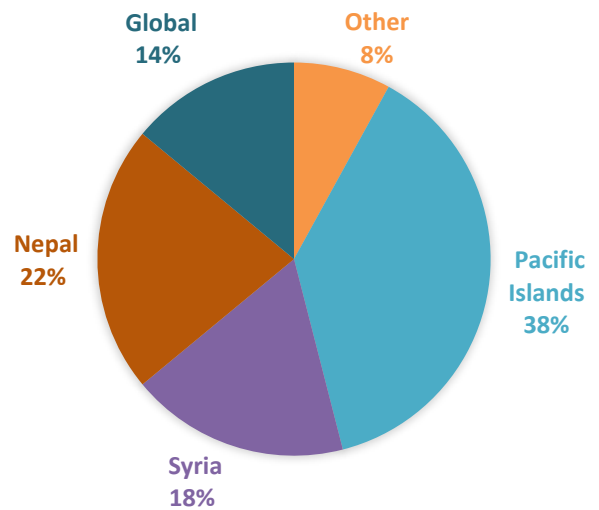
Expenses by Sector in 2019

Health	42%
WASH	29%
DRR	15%
Training	8%
R&D	6%

Funding Allocation



Allocation by Location



These figures represent an unaudited financial statement and are provided to illustrate our financial position for the year ending 2020.

Management, Board & Advisors

Management

Eric James, Executive Director
Sue Kovach, Finance Lead
Ben Britton, Global Operations
Susan Long, Middle East Region
Luke Johnston, Pacific Region
Andrew Lamb, Innovation Lead

Board of Directors (US)

Conrad Nowak, J.D.
Sallie Stiens, J.D.
Jonathan Will, MBA
Dave Holloman, MBA
Nicholas Haan, Ph.D. (on leave)

Technical Advisors

Nezih Altay, Ph.D. - Logistics/Operations
Louise Bloom - Logistical Systems
Maggie Heraty, OBE - Humanitarian
Supply Chains

Tony Hoffman, Ph.D. - Protection
Sarah Kesler, M.D. - Health/Medical
Joshua M. Pearce, Ph.D. - Manufacturing
Paul Sherlock, OBE - WASH



Our workshop in Syria



Rainwater harvesting in Fiji

Get Involved

There are several ways you can make a difference:

1) Donate

In order to continue our work we rely on donations. Please consider making a contribution to Field Ready to help us reduce human suffering and expand our reach. You can donate at: <https://www.fieldready.org/donate>

2) Volunteer

We're always looking for good partners and volunteers. If you or your company are interested in partnering with us, we're eager to explore possibilities.

3) Use the Internet For Good

Please use your social media to help get the word out about Field Ready. Connect with us at:



www.facebook.com/FldRdy/



@FldRdy



www.linkedin.com/company/fieldready



[ady.org](https://www.instagram.com/fieldready)



field_ready

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FIELD READY

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Donate

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