

GiveDirectly Tech Innovation Fact Sheet

How poor countries are using AI to deliver cash-aid to the most vulnerable people

New technology allows cash to get to vulnerable people faster and more efficiently than traditional aid

GiveDirectly is using AI and remote targeting technology to get cash in the hands of the poorest and most vulnerable people in [Bangladesh](#), the [Democratic Republic of Congo](#) (DRC), and [Nigeria](#). This allows cash to be delivered faster and more accurately than other international aid programs — and even many social welfare programs in wealthier Western countries.

GiveDirectly uses cutting edge technology to remotely target, enroll, and pay people living in poverty.

- [Mobile money](#) is a simple fintech that has spread all over the developing world letting people send and receive money with simple SIM cards.
- By combining metadata from telecoms, government data, satellite imagery, and on-the-ground surveys, GiveDirectly pinpoints the neediest communities and sends them cash in minutes.
- Since 2020, GD has run such programs in [Nigeria](#), the [DRC](#), [Malawi](#), [Togo](#), the [U.S](#), and [Mozambique](#). More info [below](#).
- [Research studies have found](#) that this approach to targeting, enrolling, and paying people is more accurate, more efficient, and faster than traditional ways of getting aid to poor communities.
- GiveDirectly has [developed a Responsible AI/ML Framework](#) for using AI and machine learning that balances the benefits of AI/ML against the potential risks.

This technology can reach people faster, more accurately, and at a scale much larger than traditional social welfare programs in the West.

- **Mobile-based technology can be used for quick registration and payment — in as [little as two weeks](#) — allowing for immediate distribution of cash.** The technology utilizes machine learning to target aid effectively to the most vulnerable communities in a way that is scalable and adaptable based on real-time data for flexible crisis response.
- **This is in contrast with wealthier countries' social welfare programs, [which are often slow and bureaucratic](#).** This includes forcing recipients to make in-person visits, mailing people checks, and relying on outdated census or tax data.
- **This technology can also help governments in the global south with weak Digital Public Infrastructure (DPI).** There are regions across the world [without conventional statistics](#) — for example, an estimated 1 billion people who have no official proof of their identity. Mobile technology and satellite imagery can improve the governments' own data

in those places. This gives governments and organizations more information by which they can decide where to send aid.

 In Bangladesh, GiveDirectly identified the most vulnerable communities using phone metadata and remotely sent cash relief to 22,600 families.

- The program supported families in two districts — Cox's Bazar and Bandarban — [affected by a massive influx of Rohingya refugees](#), sending them \$180 USD, no strings attached. Recipients spent the cash to improve their farms, send their kids to school, start new businesses, pay back debts accumulated in recent years, and much more.
- **AI analyzed three datasets and created a model that could target the communities most in need.** Researchers identified the most economically vulnerable communities based on three datasets:
 - Poverty proxy data from around 100,000 households, including indicators like family size, education level, and roofing material.
 - An analysis of mobile phone records of 100,000 households, including duration of calls, number of SMS messages sent, overall mobile data usage and more.
 - A more intensive consumption survey of 5,000 households, giving a qualitative understanding of what families spend their money on.
- **Eligible families were enrolled and paid fully remotely.** Once identified, households were enrolled remotely in a short phone call that verified their identity through an integration with the national ID database. They were then paid through bKash, the largest mobile money provider in Bangladesh. Remote enrollment was much faster than traditional models of going into communities in person.
- **AI targeting was able to identify overlooked communities.** Ramu is a village that had been passed over for other government aid because it is not directly next to a refugee camp. GiveDirectly's targeting model identified Ramu among the most vulnerable communities and sent them cash transfers.
- **This is a model for how governments can use innovative technology to better target their social programs.** Governments can create data models to ensure that the most vulnerable are receiving support and use remote enrollment strategies to get them assistance without a resource-intensive door-to-door operation.

 In the DRC, GiveDirectly was the first to use big data to identify internal displacement as it happens, sending impacted people cash within a week of being displaced.

- There are [nearly a million](#) internally displaced persons (IDPs) in the North Kivu region of the DRC in the most recent round of [a decades-long conflict](#) which has been named one of the [top ten most urgent humanitarian crises of 2024](#).
- **Cash will ensure that people forced from their homes can afford shelter, healthcare and food as they migrate through insecure, inaccessible areas.** 3,500 people will receive \$300 USD, no strings attached.
- **Metadata from mobile phones will show which families have fled.** In partnership with [Flowminder](#) and Airtel, GiveDirectly will analyze movement patterns of phone users in regions impacted by a security incident, identifying those who may be IDPs. Individuals identified will get an SMS inviting them to fill out a survey and, once they

complete it, GiveDirectly runs an automated due-diligence check. Recipients will receive their first payment within minutes, directly to their phone, to spend as they wish.

- **Aid will reach IDPs 4-8x faster than conventional aid programs.** Based on a survey of existing aid organizations, it takes most 'rapid' humanitarian responses four to eight weeks to get aid to people in need (sometimes longer). This program will deliver unconditional cash transfers within a week of a security incident, with transfers arriving minutes after IDPs register remotely.
- **The program ran in mid-January 2025**, after a security incident in the region that was mapped by GiveDirectly and Flowminder. [Here is more about the program.](#)

■ In Nigeria, GiveDirectly is using AI to identify and pay those most vulnerable to seasonable floods — before the floods arrive.

- **Over 15 million Nigerians living in poverty are exposed to flooding, the second highest number in the world after India.** Kogi State suffers predictable annual floods since it is located at the confluence of the two major rivers. In 2022, over 470K people there were affected by floods.
- **In partnership with Google.org and google research, GiveDirectly is using satellite AI flood mapping and government data to identify communities living in micro-areas prone to flooding.** Before flood season, 20,000 households in the given area are pre-enrolled. 5 days before peak flooding, 4,500 of the most at-risk households are identified. Within 48 hours of the flood trigger, each household gets \$320 USD, giving them at least three days to stockpile food and other items for their homes.
- **This anticipatory action — which could happen anytime after August — is faster, more adaptable, and easier to scale than traditional aid models.** Payments are made through bank transfers, fully remotely through partnerships with telecommunication companies. The program builds off a [similar program GiveDirectly ran in 2022](#). The success of that program was due to designing it with community input and sending cash promptly so people could take advantage of markets that were open during peak flooding.
- [According to the world bank](#), 40% of the 1.8 billion people living in flood-prone areas, are living in poverty. If successful, this program will provide a powerful model of how governments and NGOs can use cash to support those communities.

[For more info – email press@givedirectly.org]

Appendix: GiveDirectly has used AI to run remote targeting programs in at least six countries since 2020.

- **Togo (2020):** An [award-winning program](#) that was built in a matter of weeks and outperformed other options available to policy makers, [according to researchers](#). The program used satellite imagery and call detail records data to develop hyper localized wealth estimates at the district level for individual phone users in rural Togo. The

Togolese government provided \$20 per month to over 150,000 of those most in need for five months.

- **DRC (2021):** A program where recipients were able to receive cash [just 45 seconds after enrolling](#). Utilized geospatial and administrative data to identify the most vulnerable and economically disadvantaged neighborhoods in Kinshasa. GiveDirectly then used an alternative form of remote targeting which leverages data on cell phone subscribers' most used cell tower to target and send cash to individuals. 56,000 individuals received \$150 each.
- **United States (2022):** In the aftermath of Hurricane Ian, 3,500 residents of Collier, Charlotte, and Lee Counties were offered [\\$700, no strings attached](#). They were identified by an algorithm that combined an analysis of satellite imagery from before and after a disaster, an estimate of the severity of damage to buildings, and government data on poverty from sources including from the US Centers for Disease Control Prevention and SNAP recipients.
- **Malawi (2022):** Another program (detailed in [this World Bank Report](#)) using subscriber phone metadata to train a machine learning poverty targeting algorithm. GiveDirectly then used this algorithm to identify individuals in the rural outskirts of Lilongwe living in extreme poverty. 12,800 households received a total of \$621 each.
- **Mozambique and Nigeria (2022):** An [anticipatory action climate program](#) where GiveDirectly used technology to create a model to identify the most climate vulnerable communities. This model was based on layering historical flood data (from partners [Floodbase](#) and [Fathom](#)), granular [poverty maps](#), and crops and village density derived from satellite imagery. GiveDirectly staff then visited some of these areas to consult local authorities, validate our map predictions, and determine which were the poorest and most at risk of flooding. In Mozambique, over 7,500 families were sent \$225 in unconditional cash just three or four days before a flood was predicted to strike their area. In Nigeria more than 6,000 families were sent \$221 in the weeks following floods. [Here](#) is a blog on this program.
- **Bangladesh (2025):** GiveDirectly paid 30,000 people affected by the floods in the Jamuna River Basin — half got \$100 days before floods and half will get \$100 after the flooding. The program uses an AI model developed by Google.org to identify geo-locations. Once identified, recipients in those locations were prompted to enroll via text message and paid with mobile money.