White Paper on Alternative Solutions Impacting the Social & Financial Stability Relating to Current Economies & Currencies: Building Circular Economies with Bitcoin©

Promoting the survival and growth of underdeveloped communities requires understanding the structures in place that support the current economy. The following white paper outlines a brief case study championed by Motiv, a non-governmental organization (NGO) that focuses on empowering people and communities to succeed and thrive instead of relying on aid to achieve basic survival. The project, titled Bitcoin Circular Economies, was designed to help failing communities establish economic stability through education, guidance and by adopting Bitcoin as a circular resource. This paper presents an overview of the issues that hinder economic development in underdeveloped countries, the history of financial technology, and the justification for why Peru was selected for this project. Initial findings are presented, followed by a discussion of whether Bitcoin Circular Economies could become a suitable solution for addressing economic stability.

Introduction and Summary

Even when the global economy is thriving, many communities cannot enjoy the advancements of modern life and the spoils of global economic prosperity when it does occur. While each community has problems to work through, there are many shared characteristics among lesser-developed countries: a lack of a central bank, access to a banking system, or credentials needed to access traditional banking. Why don't these lesser-developed countries follow methods used by higher, economically established countries such as the United States and other first-world economies? Because these countries encounter constraints that inhibit participation in traditional banking. Geographical conditions isolate many communities from access to banks, and often an undereducated populace lacks basic financial literacy and the identities necessary to take advantage of the benefits of traditional fiat-based economies.

Many organizations and further-developed countries (by comparison) have attempted to improve the conditions of these communities and countries by providing food, clothes, and other resources. However, it is difficult for these aiding groups to maintain a consistent supply of goods sent to these communities. These acts of charity often only serve to address deeply entrenched problems as the citizens of failed/failing communities have no way to improve their quality of life once they have run their provided resources dry. They would be no better than where they were before receiving aid and are often worse off. In other words, traditional charitable efforts only treat the symptoms of poverty rather than the root cause of poverty in those communities. In order to treat this root cause, a roadmap and form of coaching should be provided that will help them achieve a more sustainable life.

Armed with this knowledge, implementing a new system is essential to helping people break free of circumstances that tie them to an unsustainable life of dependency on others. However, these systems must be custom tailored for the countries that need them. Additionally, these systems must have designs that ensure these communities can function independently once trained. Section 1 of the paper discusses examples of economic issues many countries face that can hinder economic development. Each of these problems may not be identical to every country experiencing them. However, it is generally implicit that they have similar effects. Looking at these problems concerning other economic indicators can help determine a solution. This section also discusses potential problems stemming from central banking seen in countries like the United States, explaining why an alternative system can be desirable. Using relevant statistics, this section compares three relatively financially literate countries with three relatively financially illiterate countries. In the end, this section compares Peru's specific economic factors to substantially more powerful countries to show the differences in abilities from different countries depending on leadership, budgetary focus, and other variables.

Section 2 provides a brief history of financial technology before focusing on cryptocurrency and Bitcoin. Afterwards, it discusses the general definition of a circular economy, explaining its benefits and showcasing examples of their usages. Circular economies have utilized different resources depending on how citizens use them. However, the concept always centers on keeping the economy self-sustaining and ensuring continuous resource reuse.

Section 3 analyzes the project of the nonprofit organization Motiv Inc. and its financial education program, Bitcoin Circular Economies. The project's process and goal are explained before discussing how Motiv has expanded on the project since its inception and how it could act as a solution to help integrate certain people into society.

Section 1: Problems with Modern Banks:

A. Financial Illiteracy

One central problem seems to have the most significant impact as a root for the other issues to be mentioned. This problem is the population's alarmingly high rate of financial illiteracy in adults. In 2014, Standard & Poor's Ratings Services Global Financial Literacy Survey released a survey analyzing financial literacy rates in different countries. Despite countries such as the United States enjoying a financial literacy rate of 57% and the United Kingdom having 67%, these are exceptions. Most countries fall near or below 50%, with many landing at rates below 20%. The majority of countries that possess rates over 50% are in Europe. In comparison, those below 50% mainly consist of countries in South America, Africa, and Asia. Many countries above 50%, such as Germany and Finland, are frequently cited as having top-tier education systems. In line with an earlier statement regarding the importance of teaching a group of people to self-sustain in order to ensure their economy enjoys long-term growth, there is a correlation showing that access to good, quality education may be imperative in ensuring financial literacy for the majority of a country's respective adult population.

Additionally, the survey found that when comparing similar financial classes and individuals regardless of income, those with bank accounts are generally more financially literate than their counterparts. Figure 1 compares three countries that scored above 55% and three that scored below 35% in order to find commonalities between each group. Using the first three statistics measured, a correlation shows that countries with higher rates of financial literacy have a higher number of citizens with access to a form of financial service than countries with lower rates.

The Business Freedom Index measures on a 100-point scale, how efficiently the average citizen of a country can start a business using a variety of different indicators.
Financial Freedom Index measures on a 100-point scale, respective countries' banks' efficiency and ability to operate independently from government control using a variety of different indicators.

Figure 1:

Countries (financial literacy rate of adults based on Standard and Poor Survey)	Peru (28%)	Philippines (25%)	Ghana (32%)	Germany (66%)	Canada (68%)	United States (57%)
Percent of people aged 15+ with a credit card (2017)	11.57	1.94	5.75	52.54	82.58	65.6
Percent of people aged 15+ with a debit card (2017)	27.92	21.01	18.57	90.64	96.8	80.23
Percent of people aged 14+ with a bank account (2017)	42.19	31.8	42.28	99.14	99.73	93.12
Business Freedom Index (0-100 Scale) (2020)	67	60	58	83	82	83
Financial Freedom Index (0-100) (2020)	60	60	60	70	80	80
Homicides per 100,000 People (2014)	7.7	8.4	2.1	1	1.8	5.3

The indexes in Figure 1 show correlations with financial literacy, banking access, and economic stability. These findings support the notion that financial literacy and access to modern financial services are critical to a country's economic well-being.

Additionally, a series of statistics linked to financial literacy in countries are rates of different types of crimes. For this, homicides per 100,000 people were used. Although the United States acted as a significant outlier, higher financial literacy rates and greater access to financial services correlate with a lower homicide rate.

B. Problems with Central Banks

In the modern world, the most successful societies have typically been supported by what is known as a central bank system: this is not coincidental. A central bank system supplies the citizens of their respective nations with economic and financial stability while stimulating economic growth, allowing individuals to ensure the appropriate allocation of their invested assets. Additionally, a central bank system helps keep a low unemployment rate, combats inflation, and contributes to a stabilized currency. However, in the case of many countries with lower financial literacy rates, it can be more challenging to manage a system understood by only a small number of citizens. Additionally, the lack of financial literacy in these areas ensures that there needs to be a more accessible and quick-to-establish system that not only allows for growth but also keeps the speed of that growth stable over a long-term period.

Even if citizens possess the knowledge needed to support an economy, central banks suffer a critical problem that is virtually impossible to negate: the human element. Central banks typically run in close partnership with governments, governments with far more financial resources than any individual. However, while these governments have plenty of resources to ensure they continue to function, the fact is that even the highest levels of precaution can only partially avoid human error. These problems can be as simple as biases caused by emotion and selfish intent. However, they can be as varied as security threats, major world events, or a downed server. Depending on the scale, any hindrance could easily pull these banks to the verge of economic collapse. When considering this with the realization that the citizens of these underserved, failing or developing communities lack the education and necessary skills and experience needed to interface with these complex systems, the concepts of a central bank, available retail, or community banks become not only fruitless but dangerous. While there is an argument that people from other countries who are already well-versed in the financial sector could come to aid citizens in building a central banking system or a broadly available system of banks, successful economies need management from citizens who exist within them and understand that respective area's way of life. With that in mind, a bank of this power run by people who do not understand the public the bank supports may even put a country in a worse economic state than when they found it.

However, with the data gathered and countries compared, it is evident that all countries need a banking system available to all with a wide variety of financial services to generate a prosperous economy. Banking is a necessity; a central bank is not. Fiat currencies are also optional and can even be problematic for those not in positions of power and control.

C. Comparing superpowers to Peru

In order to adequately explain why the systems that support some countries cannot support others, a variety of societal and economic factors are analyzable to help compare and unearth key differentiators between economies. For this study, five countries were analyzed, with the first four analyzed for having the most significant shares of global GDP. The fifth country, Peru, was chosen for its relevance in the final section of this study. The four countries and their percentage shares measure 21.69% for the U.S.A., 15.19% for China, 5.21% for Japan, and 3.98% for Germany. Representing the other end of the line, Peru accounts for just 0.21% of the global GDP, less than 1/100 of the share size of the United States. The data was measured using the year 2020. One key factor in analyzing a country's economy is its unemployment rate which, when examined in the countries mentioned, showed a fascinating detail. While every country showed a relatively stable change in unemployment over the years measured, it is evident in Figure 2 that even without the highest rate in 2020, Peru faced the most significant YoY change from 2019-2020, more than doubling the nation's rate in that time. While this is heavily attributable to the effects of the COVID-19 pandemic, all four larger countries (except for the United States, which like Peru, more than doubled in that period) showed minimal fluctuation, displaying evidence that Peru and other countries like it are likely to experience more significant complications from significant world events that affect all or most countries in some way than countries with higher economic stability and development.





More directly involved with a country's forecasted stability in the current economy, a z-score is an effective way to determine the strength of a country's bank, as it measures the probability of a country's bank defaulting. Any situation involving a central bank default is almost guaranteed to have repercussions in some way for a large part of the world, which is why knowing a national bank's solvency risk through a z-score is crucial to comparing national banks based on stability, mainly in determining their ability to function and pay off long term debts.

Similar to Figure 2, Figure 3 is another example showing Peru's highest volatility (aside from the U.S.), as its' z-score soars high compared to China, Japan, and Germany. While Figure 2 cannot entirely be indicative of a country's central bank performance, Figure 3 directly addresses this, a finding which only strengthens in Figure 4. While the z-score addresses the banks' ability to stay afloat and continue existing, the statistic measured in Figure 4, a country's total individual banking credit as a percentage of the respective country's total bank deposits (or bank credit-to-bank deposits), addresses a central bank's liquidity. Liquidity measures a bank's ability to readily find cash it may need to meet demands upon it. Compared to a z-score's focus on the long-term ability to function, liquidity indicates a bank's short-term ability to function. With both of these pieces of knowledge and the fact that Peru has the second highest percentage of banking credit to banking deposits (with credit outweighing deposits in three of the five years measured) on the list of countries, it is apparent that Peru's economy is in desperate need of stabilization in order for its economy reach the heights of its peers.

While not integral to a country's economic stability compared to previously discussed factors, innovation is a factor that is typically higher in countries facing economic prosperity than success. In line with the findings in the other figures, showed, Peru (the country with the least minor economic stability from the statistics measured in the countries looked at) had a noticeably lower level on the Global Innovation Index -an index measuring a country's innovation level compared to its peers through a variety of factors including globalization, financial development, economic freedom, and income levels- than the other countries. It makes sense that Peru is unable to enjoy the same advancements in other countries if its bank is having trouble keeping itself up as a stable economy. This once again brings forth the argument that Peru needs to find a new method for stabilizing their economy or continue suffering the worst from common problems while missing out on the spoils of growth and evolution. This problem amplifies by the fact that Peru's informal economy makes up 42.2% of its total GDP, which explains that the country's assets and capital could be 66% greater if these funds were regulated, which would also allow the country to use this money on various projects which benefit its citizens and in turn, the nation and its economy.



Figure 3:

Figure 4:



Figure 5:



Section 2: Fintech and Circular Economies:

1. Fintech

Even if many populations are left out of the prosperity enjoyed by others, there have been numerous advancements in the financial sector that have allowed for innovation in all areas within the financial industry. If used properly, these innovations may even be able to give communities suffering from lack of available financial services the foundation they need to support themselves.

1.1 History of Fintech

Within economic world growth and the problems accompanying that growth, there has been a particularly noticeable evolution in technology used in the financial sector, often referred to as fintech. In its most general terms, the purpose of fintech is to ease the financial services process for all parties involved. In less than 200 years, the sector has seen exponential growth, allowing unprecedented access to financial information.

While the earliest examples of fintech, such as the telegram and Morse code, are concepts not explicitly designed for use in the financial sector, their ability to dramatically increase the speed of communication between two parties allowed for a greater frequency of monetary transfers in economies across the board, creating a significant step forward for the financial community. Since the middle of the twentieth century, the financial sector has experienced evolution that paved the way for many modern financial tools. Stemming from the exponentially growing technology boom, these advancements included the creation of the NASDAQ-the world's first digital stock exchange- and SWIFT (Society for Worldwide Interbank Financial Telecommunications). This communication method enhances international communication between various financial institutions, helping to increase the number of transfers between institutions of different nations. In the 1990s, the internet's widespread popularity paved further advancements in the sector, with digital banking systems and companies like PayPal allowing for seamless interaction between banks, brokerages, and individuals.

In the past 15 years, fintech has seen its most significant period of growth. The primary example of this would be none other than mobile banking. In the last decade, many banks have utilized mobile applications for customers to check financial information on their smartphones, making it easier for anybody to check their finances no matter where they are. Nevertheless, while mobile banking apps providing account holders with a new level of access to financial services is a significant advancement to fintech, no recent advancement in financial technology has generated change and possibility like blockchain-based currencies on trustless systems. These require a tiny fraction of transactional support than traditional (fiat) currencies and banking systems.

1.2 History of Cryptocurrency

A concept that has been tested and heavily theorized/discussed by scholars prior to 2009, what is now known as "cryptocurrencies," are blockchain-based digital currencies. A blockchain is a distributed digital ledger that keeps track of and verifies all transactions across its respective network through cryptological algorithms without the need to trust or use intermediaries,

eliminating the opportunity to manipulate or tamper those transactions. Blockchains eliminate the need for banks and other financial organizations to authorize and facilitate transactions. Nevertheless, unlike the fiat currencies that take up most monetary transactions in the modern world, cryptocurrencies are not backed by a country or central bank but simply by the company that created them, or in Bitcoin's case, by the unchangeable program that governs it. Bitcoin alone has traits that no other "cryptocurrency" has. Unlike the rest, an individual, company, nation, or central governing authority does not own the Bitcoin blockchain. Bitcoin is the only genuinely decentralized currency in that its program maintains governance, and any change to it must get approval from 90% of all the Bitcoin nodes operating worldwide. All other currencies, including cryptocurrencies, are controlled centrally and, therefore, can be altered, manipulated, or eliminated by their controlling entity. The cryptocurrency market consists of over 20,000 different currencies as of July 2022 and (according to CoinMarketCap) has accumulated a market cap of \$327,344,418,090 as of December 12, 2021; the popularity of these non-Bitcoin fiat alternatives has little to do with their real-world applications and more so with the highly positive social sentiment the public views in them as an investment tool, along with some specified applications for use in the ever-growing metaverse.

Bitcoin's popularity is based primarily on the fact that it is outside of any government or company's control, cannot be manipulated or tampered with, and can only be stolen or seized if someone can get the owner's private passphrase. For those who suffer from external control or oppression, Bitcoin offers the opportunity for critically important autonomy and control over their assets.

1.3 Bitcoin History and Functions

Despite the high figure representing the variety of cryptocurrencies on the market today, none come close in popularity or market share as Bitcoin. Created in 2009, the revolutionary currency quickly gained traction as the leading blockchain asset, paving the way for others that came after it. Even with thousands of cryptocurrencies that have followed its creation, Bitcoin still maintains 44% of the total market cap for all cryptocurrencies. In public news, the currency made headlines across the world in both 2017 and 2021 due to highly volatile pricing that furthered its popularity and, recently, for the impact FTX's failure has had on the crypto community, which Bitcoin is weathering the way it is supposed to, through market valuation.

Bitcoin also eliminates the need for a middleman such as a bank, allowing for smoother, private transactions and lower loss of capital during the transfers due to the elimination of banking fees.

Notably, Bitcoin was not created for a metaverse or video games, as is the case for many cryptocurrencies today like Ethereum. Bitcoin's purpose is much simpler, intended to act as an alternative transaction method free of bank interactions to facilitate the transactions, reducing transactional costs to nominal rates far below traditional banking fees and without fear of manipulation. Because of this, Bitcoin's applicability is far more universal than other cryptocurrencies on the market.

Most importantly, the process of procuring, holding, and transferring Bitcoin can happen from a mobile phone. As of 2022, about two-thirds of the world's population has access to a mobile phone. Considering this, Bitcoin is in an excellent position to become a universal currency. A Bitcoin transacted for a good or service in another country is done so without costly and cumbersome exchange rates, meaning that Bitcoin is usable in any community with access to a cell phone or the internet. When considering this, it becomes evident that Bitcoin's accessibility and technology showcase its large-scale potential for implementation anywhere in creating a new economy.

1.4 Access to electricity percent of the population

Adding on to Bitcoin's easy assimilation, on the broader spectrum, Peru, unlike earlier mentioned statistics, has begun to meet the standard seen in the other previously mentioned countries regarding electricity access, making it easier to introduce a phone into many people's lives, even those who lack basic sustainable life needs. As many countries like Peru roll out internet access country-wide, implementing Bitcoin into different societies has increased potential. Even with access to the internet more readily available, Peru still falls slightly behind their larger peers. However, this can become fixable with a further increase in access to electricity.



Figure 6:

2. Circular Economy

Bitcoin has established itself as a valid currency. All it needs now is an economic system that stimulates consistent flow within the community to become a helpful tool/conduit for

change. A concept that supports this comes in the form of a circular economy. A circular economy is an economic system that keeps its resources continuously reused cyclically, ensuring they receive efficient use and, ideally, allow for a never-ending cash flow.

2.1 Examples of Circular Economies

Once a circular economy finishes establishment, it should be able to sustain itself forever, assuming the resources pass through the same cycle without diversion. The following examples do not operate in the same way as the economic case analyzed in Section 4. However, the nature in which they operate reflects the fundamentals of a circular system.

2.1.1 Deposit Returns

The most familiar example in daily life is recycling drink containers through deposit returns. Consistent reuse of manufacturable materials decreases pollution and waste, reducing the need for resources like fossil fuels used in manufacturing those containers. An incentive program for recyclers encourages recycling so that countries with programs like these can refocus resources on more efficient projects, contribute to economic expansion, and improve the overall quality of life for community citizens.

2.1.2 Scandinavian Zero-Waste Dining

Unlike other organizations, which attempt to utilize uneaten food for purposes beyond its initial intent, the Scandinavian-based company Too Good to Go has utilized a project that allows for the consumption of food that is nearing the end of its life cycle. With stores in over ten different countries, this creative enterprise distributes food that would not be sellable by the next day at a discounted rate to those in need, helping ensure that no food becomes waste. This also makes providing food to those less fortunate more affordable and less detrimental to the overall resource supply. The same amount of food is feeding more people, which benefits society as a whole.

2.1.3 Nike Sneakers

Sneaker giant Nike has publicly stated that 71% of the shoes they manufacture come from the byproduct of their manufacturing process. Estimates say this allows them to recover 92% of the company's entire waste and make them a near pollution-free company. Through this process, they can grow their stock supply at an exponentially compounding rate, reducing waste while simultaneously increasing company profits and reducing costs, which subsequently furthers profits even more. In this example, Nike's efforts benefit themselves and the community in which their employees live by reducing its environmental impact. Globally there are 785 contract factories with more than 1 million workers manufacturing more than 500,000 different products.

2.2 Applicability

From the examples discussed above, it is inferable that a circular economy has unlimited applicability when resources experience a cycle that ensures constant reuse.

Section 3: Bitcoin Circular Economies Use-Case:

Currently, startup company Motiv Inc. has been working on a project that utilizes the concept of a circular economy for communities that need economic stability, implementing Bitcoin cryptocurrency as the circular resource of choice. They have coined this concept as Bitcoin Circular Economies. Motiv offers vocational, academic, linguistic, entrepreneurial, and other educational classes to community members. Participants receive a scholarship that pays them in Bitcoin, designed to help put them on the road to economic opportunity and financial freedom.

1. Why Peru?

Motiv operates throughout the Lima and Cusco regions, the Andes Mountains, and the Amazonian region around the city of Iquitos. Whether or not they have banks close to them or live in areas too remote to have access to banks, Motiv ensures program participants have access to essential financial services by using Bitcoin and its mobile apps. The 2014 S&P survey also revealed that Peru's 28% financial literacy rate for adults was 5% lower than the global average. Even with 57% of adult Peruvian citizens possessing access to a bank (as of 2018), a 2022 study revealed that 52% of Peruvians do not have any financial savings product, and 72% perceive at least one barrier to setting up a bank account. For reference, there are approximately 1.3 mobile phones per person in Peru as of 2022. While this does not necessarily mean every person in the country possesses a phone, it is implicit that a heavily decisive majority of the population possesses a cell phone. With high access to mobile phones and an alarmingly low financial literacy rate, Peru is Motiv's ideal country to begin Bitcoin Circular Economies. Peru's optimality is furthered by the country's technological access, with many people who could benefit from improving their financial literacy.

2. Target Groups

Currently, the project focuses its operation in areas called hubs, with the intent of each established hub serving a local community and aiding in developing a microeconomy. Bitcoin is used to circularly transact between people and businesses throughout the production cycle for goods or services, either in person or remotely, allowing for a constant stream of conducted business within the community and giving individuals a chance to gain experience and, subsequently, the knowledge that will guide them on their financial journeys.

The location of each hub depends on widely varying data points that determine the need for such a program, including population, terrain, agriculture, and climate. However, primarily these locations are chosen because a community in need is seeking a better life for its people. Ideally, Motiv's focus is to work with the informal worker, a.k.a. individuals with minimal to no statistical record who have more than likely never paid taxes and subsequently never received proper personal financial literacy training. With these details in mind, Motiv sees this project as a way to help address systemic dependence on outside services by educating the community and its leaders in financial literacy, personal finance, vocational skills, entrepreneurship, nutrition, and health. Using these tools, Motiv gives them the best opportunity to achieve a self-directed and sustainable quality of life, free from dependence on and control from outside services.

3. Creation and Process

Regardless of which program or class they enroll in, all participants learn the basics of Bitcoin transacting, including its safety and managing personal finances as a requirement to continue in the course or program. Motiv's goal is to create an active circular economy that provides an opportunity for steady economic growth within the communities they serve. With a currency in the hand of all people joining their respective hubs, individuals can not only improve their quality of life but find a way to create businesses that both allow them to accumulate wealth and benefit their community by providing essential services and jobs for fellow citizens to earn money of their own. Once citizens of a hub collectively determine the values of their products, they then learn how to take their products, services, or talents to market. They then can further a microeconomy by participating in a broader economy around them. The key factor is that when a Bitcoin circular micro-economy hits a critical mass of producers and consumers, it can continue operating uninterrupted by external economic conditions such as market shutdowns, bank runs and closures, or even a fiat currency collapse. These microeconomic strategies do not mean to replace traditional banking in already-existing economies. Instead, they are intended as a learning experience to help citizens become more productive in their country's respective economy and improve both their personal lives and the nation collectively (while still allowing these hubs to continue to operate despite influences that may be detrimental to a community or nation's financial system). Considering that only 27.3% (as of July 2022) of Peru's employed population is formally employed, it becomes more apparent just how large of an impact this project can have on a country like Peru. Suppose the Motiv project can reach most or all informally employed citizens by

educating them to the point that they are financially literate. In that case, this effort could facilitate conversion into formally employed citizens who become contributors to their country's economy. Motiv sees that if they can educate people in need, they will have the tools to bring prosperity to their lives using what they have learned.

4. Education

As previously stated, to successfully implement this project, all courses that Motiv conducts require participants to learn financial skills that enable them to transact in Bitcoin and know the pitfalls of other cryptocurrencies. Motiv expects participants to learn basic bookkeeping skills through Bitcoin and to make more effective use of other assets they possess.

A few of the programs Motiv offers are courses about entrepreneurship, vocational skill training, and a unique program called "Motiv Kids." Motiv Kids provides children within the hub's educational assistance, with tutoring, extracurricular classes, health and nutrition, and (as in all other courses) the basics of financial literacy, laying the groundwork for a more knowledgeable and experiential upbringing that will increase opportunity as they grow into adulthood. Upon becoming adults, this acquired knowledge will provide a new generation a chance to break the cycle of dependence that has been part of their lives for many generations.

5. Running a Hub

The specifics of bringing a hub to life are simple, but only some factors remain consistent. Costing around 7,000-9,000 USD or0.4-0.5 BTC (depending on Bitcoins' current valuation) to establish, these hubs each have at least three individuals per village, with the positions focused on managing finances, educating individuals through their various learning programs, and overseers who ensure quality, suggest improvements, and interact with regional and national leadership in Peru and the U.S..

6. Current Results

Since the first hub's establishment in July 2021, Peru achieved 15 active BITCOIN CIRCULAR ECONOMIES established throughout Peru in 18 months. Across the 15 locations, 3000+ programs have been successfully conducted, with 70,000+ participants. Since December 2021, the number of new wallet activations and businesses within the hubs that have begun to accept bitcoin has grown exponentially and in close correlation, with 150+ businesses accepting Bitcoin within the hubs by the end of 2022. Taking an average of four weeks for a new participant to get involved and the fact that members are always welcome back even if they happen to leave, Motiv's project has the potential not only to help create jobs but to give undereducated citizens the financial literacy needed to know proper money management, which contributes to their ability to help stabilize their community. Opportunity for expansion in Peru increases with each new hub. Motiv has now gone from looking to finding groups to being asked by multiple municipalities and political leaders to start a hub in their community; Motiv's long-term potential is limitless, benefiting not only those they directly touch but also the surrounding villages and the country of Peru.

Figure 7:



Conclusion

The need for outside assistance must always be acknowledged. There will always be those who have more wealth than others, but that does not mean there cannot be an effort to address the need to ensure everyone can break the imprisoning bounds of dependency and the oppression or abuse that often accompanies it. While Motiv has only so far tested the concept of Bitcoin Circular Economies in a single country, Motiv's experience in successfully transforming individuals and communities into self-directed autonomy and giving people the ability to achieve financial freedom in such a short time clearly shows that the project could have similar results in similar nations with similar socioeconomic conditions. Desmond Tutu wisely said, "there is only one way to eat an elephant: a bite at a time." What he meant by this is that everything in life that seems daunting, overwhelming, and even impossible can be accomplished by gradually taking on just a little at a time.

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