Bitcoin and Digital Currency Mining in Bhutan

Bikram Adhikari
ORCID: 0009-0001-4289-0959

ABSTRACT
Bhutan has quietly emerged as a front runner in the cryptocurrency race. This article presents a comprehensive overview of Bitcoin and digital currency mining in Bhutan - its history, infrastructure, economic impact, geopolitical implications, and current usage at both national and consumer levels. It explores how global trends in Bitcoin (BTC) and other digital currencies compare with Bhutan's unique journey, and how Bhutan's approach – harnessing renewable energy for crypto mining – has led it to hold digital asset reserve. The success of the Bitcoin mining encouraged Bhutan to adopt its own digital currency TER for its newly created Special Administrative Region Gelephu Mindfulness City. The analysis covers major milestones from Bitcoin's inception to Bhutan's recent ventures, and provides insight into why Bhutan embarked on this path, what it means for its economy, and how digital currencies are being used on the ground.

Keywords: bitcoin, digital currency, paperless money, economic growth,

Evolution of Digital Currency and Bitcoin

Bitcoin's history began in 2008, when the pseudonymous Satoshi Nakamoto published the Bitcoin whitepaper, leading to the launch of the Bitcoin network in January 2009. In its early days (2009-2010), Bitcoin had little value and was mined on ordinary home computers (CPU mining) as a hobbyist activity (Mining-Provider, 2023). As Bitcoin gained popularity and value, mining quickly evolved through mining in specialised Application-Specific Integrated Circuit (ASIC) hardware by 2013, which made mining far more efficient and industrialised (Mining-Provider, 2023). Over the last decade, Bitcoin has transitioned from a niche experiment to a mainstream financial asset.

The initial prices were minimal. By 2010 Bitcoin's price rose from mere cents to thousands of dollars. Exchanges and wallets proliferated, and early adopters grew into a global user base.

Between 2017 and 2021, the industrial mining and mining pools took hold, with large-scale operations and entire warehouses of ASIC machines. Countries with

cheap electricity (like China in the 2010s) dominated mining until regulatory crackdowns prompted miners to relocate to countries like the United States, Kazakhstan, and others. By 2022, the U.S. (particularly states like Texas) became a major hub for Bitcoin mining due to relatively low energy costs and permissive regulations(Jitender, 2025).

By 2020s, many governments and financial institutions began taking crypto more seriously. Some countries introduced or explored central bank digital currencies (CBDCs) as regulated digital money, while others updated laws to address or embrace crypto. Today, Bitcoin is recognised globally, with tens of millions of users and a market capitalisation that has at times exceeded US$1 trillion.

The governments reacted to the evolution differently. China launched a digital yuan (while banning private crypto trading/mining), and Bhutan's own central bank piloted a digital ngultrum project in partnership with Ripple in 2021. El Salvador made Bitcoin legal tender in 2021.

The European Union is rolling out comprehensive regulations, and the United States treats Bitcoin as a commodity with active futures markets while regulatory bodies debate oversight.

Bitcoin Holdings in Major Economies

One aspect of the crypto momentum is the growing adoption and holdings of Bitcoin by governments and residents of various countries. While Bitcoin is decentralised and primarily held by private individuals or companies, some national governments have ended up holding significant amounts – through investment, legal adoption, or law enforcement seizures. Table 1 highlights how both the general population and governments of some economies engage with crypto.

Table 1: Holdings in Selected Countries

Country	Estimated crypto users (2024)	Governments Holding – Bitcoin (2025 Feb)
Indra	~93.6 million (≈6.6% of population)	Negligible official holdings (regulatory caution)
United States	~52.9 million (≈15.6% of population)	~207,189 BTC (seized; ~$19.6 B)
China	~59.1 million (≈4.1% of population)	~194,000 BTC (seized; ~$18.3 B)

Vietnam	~20.9 million (≈21.2% of population)	Minimal (focus on adoption; not state-held)
United Kingdom	(Not top 10 by users)	~61,000 BTC (seized; ~$5.8 B)
Ukraine	(High adoption during 2022 crisis)	~46,351 BTC (donations & seized; ~$4.4 B)
El Salvador	(Notably high interest after legal tender law)	~6,000 BTC (bought; ~$576 M)
Bhutan	< 1 million (small population; growing interest)	~13,029 BTC (mined; ~$1.23 B)

Sources: Cryptocurrency user estimates from 2024 data (CEOWorld survey), and government BTC holdings from BitcoinTreasuries (Feb 2025).

Even major economies like the US and China have come to possess large Bitcoin troves (mostly via confiscation of illicit funds), while smaller nations have taken divergent approaches. Bhutan stands out as a relatively small country that now holds over 13,000 BTC (worth about $1.2–1.3 billion) through deliberate mining and investment (Parihar, 2025; Major, 2025). This puts Bhutan among the world's largest public sector Bitcoin holders, alongside much larger nations. By comparison, El Salvador, famous for embracing Bitcoin, holds around 6,000 BTC (valued ~$576 million), and has about eight times Bhutan's population. The United States and China top the list, but their holdings were not accumulated as an economic strategy per se, rather as a result of enforcement actions(Parihar, 2025).

In terms of public adoption, countries like India and Vietnam lead in number of crypto users, reflecting high retail interest. Advanced economies also have significant crypto investor communities and institutional interest. The Bitcoin and digital currencies have transitioned from a fringe curiosity to a recognised asset class globally, prompting nations to respond – either by holding some, regulating usage, or, in Bhutan's case, proactively mining and integrating them into their economic strategy.

Bitcoin in Bhutan

Bhutan's relationship with digital currencies evolved quickly. Official foray into cryptocurrency began quietly. In January 2019, Bhutan's central bank – the Royal Monetary Authority (RMA) – introduced a Regulatory Sandbox Framework for Cryptocurrency Mining (RMA, 2025). This policy allowed controlled experimentation with crypto mining, indicating that Bhutan's leadership was already considering crypto as a potential national venture. Some reports suggest a state-affiliated Bitcoin mining operation might have existed even earlier (circa

2017), though details remain sparse. By April 2019, Bhutan's sovereign investment arm, Druk Holding & Investments (DHI), took the plunge into Bitcoin mining, leveraging the country's cheap, renewable hydropower to start generating digital currency. DHI confirmed at the time that it had 'entered the mining space,' at a point when Bitcoin's price was around $5,000 (Reguerra, 2025). By 2025, RMA said it will take a phased and focused strategy to crypto currency and that crypto mining and exchanges will be allowed only for GMC (Sergeenkov, 2024).

Initial entry was not publicised widely, and Bhutan's crypto activities remained largely under the radar for years. While mining continued quietly, Bhutan also explored digital currency on other fronts. The RMA in 2021 partnered with blockchain company Ripple to pilot a central bank digital currency (CBDC) – a digital Ngultrum – aimed at enhancing financial inclusion and digital payments in the country. This step placed Bhutan among the early movers in CBDC experimentation.

When the COVID-19 pandemic hit in 2020 and crippled global tourism (a key sector for Bhutan), the Bhutanese government ramped up its cryptocurrency strategy as an alternative revenue source (Sergeenkov, 2024). Bitcoin mining operations intensified after 2019, taking advantage of Bhutan's excess hydroelectric capacity. By 2020, Bhutan was mining Bitcoin in earnest, effectively monetising energy that might otherwise be underutilised (Baltrusaitis, 2023).

Bhutan's involvement in crypto mining deepened further in 2021. Country's sovereign investment arm Druk Holding and Investments (DHI) expanded beyond mining and quietly invested in cryptocurrency lending platforms like BlockFi and Celsius, as later revealed in court documents (Sergeenkov, 2024). These investments were never announced publicly, coming to light only in 2023 during those companies' bankruptcy proceedings. It showed Bhutan was not just mining and holding Bitcoin but also seeking yield and exposure in the broader crypto market (a risky move, as these firms collapsed).

Imports of high-performance computer hardware surged in Bhutan. From a mere $1.1 million worth of tech imports in 2020, Bhutan imported $51 million in computer chips in 2021 (Sergeenkov, 2024), and an even larger $142 million in 2022. These chips correspond to specialised mining rigs, indicating a significant scaling-up of mining capacity. To put that in perspective, the 2022 imports of mining hardware were about 10 per cent of Bhutan's total inbound trade value for that year.

In late 2021, construction began on a large-scale mining facility at the site of the defunct Education City project at the outskirts of Thimphu. Using the existing roads and power infrastructure of an abandoned government project, Bhutan repurposed the area for a vast new data centre dedicated to crypto mining.

In April 2023, a Forbes exposé and other investigative reports uncovered the scale of Bhutan's crypto holdings and mining investments (Martin, 2023). This revelation showed that Bhutan had amassed a multimillion-dollar cryptocurrency portfolio in secret. The news also highlighted Bhutan's entanglement with the bankrupt crypto lenders, painting a fuller picture: the nation had not only mined Bitcoin but also reinvested some of its crypto into various platforms, a sign of an ambitious if controversial strategy.

Facing the spotlight, Bhutanese officials began to openly discuss their crypto strategy. DHI's CEO, Ujjwal Deep Dahal explained that given Bhutan's abundant hydropower, entering Bitcoin mining was 'quite obvious in a lot of ways' – a natural fit for a country with cheap, green energy and a need for new revenue sources (Baltrusaitis, 2023).

In May 2023, DHI and Bitdeer (a major mining company founded by Jihan Wu, former Bitmain CEO) announced a partnership to create a $500 million fund for crypto mining in Bhutan. This deal sought to bring in external capital and expertise to further boost Bhutan's mining operations, confirming the country's commitment to scaling up its crypto sector.

Bhutanese media, such as *The Bhutanese* newspaper, reported discussions within the country about using crypto profits. One plan considered selling a portion of Bhutan's Bitcoin holdings (around $72 million worth) to finance a 50% salary increase for civil servants. This striking idea illustrated how entwined crypto had become with Bhutan's fiscal planning – essentially, Bitcoin was seen as a source of funds for national budget needs during an economic crunch.

With the secrecy lifted, Bhutan's people and parliament began grappling with this new reality. Public awareness of crypto has grown – a study found over 90% of surveyed business students in Bhutan were aware of cryptocurrencies by 2024, with a generally positive attitude toward their use (Segreenkov, 2024). The government's narrative positioned these investments as part of a forward-looking, innovative economic diversification strategy, albeit one that would require careful risk management.

Mining Infrastructure

A crucial part of understanding Bhutan's involvement with digital currency is examining the infrastructure and operations of Bitcoin mining, both globally and how Bhutan has implemented it.

Bhutan's approach to mining infrastructure leveraged its unique national assets. The country's biggest advantage is its hydropower capacity. Bhutan has fast-flowing rivers fed by Himalayan glaciers and has long invested in hydroelectric plants. By 2019, hydropower not only supplied virtually all of Bhutan's electricity but also made up a significant portion of its exports (selling power to India). This abundance of clean energy and a cool mountain climate (helpful for keeping mining equipment from overheating) make Bhutan geographically well-suited for Bitcoin mining (Shivamurthy & Chandola, 2024).

As of early 2024, Bhutan reportedly had five mining facilities in operation, with a sixth under construction. These sites are sprinkled across the country, often near existing power plants. A major 100 MW mining centre was established in Gedu (southern Bhutan), and the new Jigmeling Data Centre began construction in 2024 (Shivamurthy & Chandola, 2024). In 2025, Bhutan committed another 10,000 bitcoin on top of its digital currently TER to build its newly imagined mega city Gelephu Mindfulness City (GMC) (Zimmerman, 2025). One large-scale farm is built on the grounds of the failed Education City project, reusing its infrastructure. This reflects a smart reuse of dormant assets – roads, power lines, and land – to fast-track the mining build-out.

Bhutan's mines are deliberately sited close to hydropower projects, tapping directly into the grid where electricity is cheapest and most abundant. A study of locations shows the mining centres are adjacent to hydropower plants in all but one case (Shivamurthy & Chandola, 2024). This not only minimises transmission losses but also underscores a strategic substitution - instead of exporting every excess megawatt, Bhutan uses some internally for mining.

The partnership with Bitdeer aims for a massive expansion to 600 MW of mining capacity by 2025-26 (Shivamurthy & Chandola, 2024). To put 600 MW in perspective, that amount of power could run a small city. In fact, if Bhutan reaches 600 MW of crypto mining, one analysis noted this would exceed the current national power usage for all other purposes combined, (which was about 500 MW at peak times). This illustrates just how large Bhutan's mining ambitions are relative to the size of its economy.

Bhutan imported vast numbers of mining rigs and chips primarily from manufacturers in China (Shivamurthy & Chandola, 2024). By investing hundreds of millions in state-of-the-art equipment, Bhutan essentially stood up industrial-grade data centres rapidly within 2-3 years. In 2022 alone, the import of mining hardware (INR 12 billion worth) accounted for 15% of the government's entire budget that year.

The mountain climate provides a natural cooling benefit, but large operations likely still use advanced cooling solutions. Bhutan's emphasis on green suggests the operations are designed for energy efficiency, aligning with its environmental values.

However, the rapid build-out has also tested Bhutan's infrastructure. The heavy power draw from mining has noticeably impacted the national grid dynamics. Bhutan historically exported surplus hydroelectricity to India. Since the mining began, those exports have dropped sharply. Domestic electricity consumption shot up nearly 60% by 2022 (from ~1,800 GWh pre-mining to 2,860 GWh in 2022), correspondingly reducing power exports to India and even forcing Bhutan to import electricity during dry winter months for longer periods than before (Shivamurthy & Chandola, 2024). This means Bhutan's grid is now more heavily loaded year-round, and careful management is required to avoid shortages or blackouts, especially as mining scales further.

Rationale Behind Bitcoin Mining

Bhutan's economy has limited diversification, traditionally relying on hydropower exports, agriculture, and tourism. By the late 2010s, leaders were seeking new income sources. A critical moment came when the tourism sector – a major source of foreign currency – declined, especially during the COVID-19 pandemic (Bhutan's tourism revenue was about $88.6 million annually before the pandemic) (Sergeenkov, 2024). Mining Bitcoin offered a way to monetise Bhutan's surplus electricity and generate hard currency (or liquid assets) without relying on external markets for goods. Instead of letting excess power go to waste (or selling it cheaply abroad), Bhutan could convert it into digital gold. This rationale was articulated by Ujjwal D. Dahal, the CEO of DHI, who said leveraging hydropower for Bitcoin was an obvious path to a new revenue stream (Baltrusaitis, 2023).

Bhutan has invested heavily in hydro infrastructure. Bitcoin mining was initiated as a means to use this 'excess green energy' profitably. Bhutan prides itself on being

carbon-negative and environmentally conscious. By mining with hydropower, Bhutan could claim to mine Bitcoin in a sustainable, carbon-free way, countering the narrative that crypto is necessarily bad for the environment. This aligns with Bhutan's image and avoids conflict with its climate commitments.

The decision in April 2019 for DHI to enter mining was likely influenced by Bhutan's top leadership, possibly including the royal family and government heads. There were references to the King encouraging innovation in fintech and crypto around that time. The initiative was state-driven unlike in some countries where private entrepreneurs lead crypto mining. It was the DHI and government agencies (RMA providing regulatory cover) that initiated and controlled crypto mining in Bhutan. This top-down approach meant the risks and rewards would largely accrue to the state.

The operational arm was DHI, but behind the scenes, one can infer key figures. The RMA's sandbox in 2019 implies that the then RMA leadership and the Ministry of Finance were on board with exploring crypto. Bhutan's fifth King, Jigme Khesar Namgyel Wangchuck, has been cited as a proponent of technological innovation and diversification (Reguerra, 2025). Under his reign, Bhutan launched several state-backed tech projects (digital identity, fintech initiatives) along with crypto mining. It's likely that the royal and government approval was given at the highest levels to embark on what was, at the time, an unconventional venture for a nation-state.

By 2022-23, Bhutan faced dwindling foreign currency reserves and a growing trade deficit (Wangmo, 2023). Mining Bitcoin could bolster reserves. Discussions (in 2023) about selling Bitcoin to raise funds for government expenses show the rationale was at least partially to strengthen Bhutan's financial position and funding capacity, when foreign reserves were low.

Public adaptation

While the government has embraced crypto mining at a strategic level, another question is how digital currencies are being used at the consumer level, both by Bhutanese citizens and foreign visitors. Historically, Bhutan's everyday economy has been cash-centric and tightly regulated, but recent developments show a gradual opening to retail crypto usage.

Public interest has been growing, especially after the revelation of the government's crypto activities. By 2024, surveys indicated a high awareness among educated

youth about crypto, and a generally positive sentiment towards using it if given the opportunity. Still, practical use remained limited due to regulatory caution and infrastructure gaps (like internet connectivity, which is vital for crypto transactions). Bhutan's terrain and late development of telecom infrastructure mean that in many areas, high-speed internet is not consistently available. The launch of SpaceX's Starlink satellite internet in Bhutan in Feb 2025 aims to solve this by providing 100–200 Mbps connections even in remote regions. According to DK Bank's president, better connectivity (like Starlink) will be a "blessing" to support smooth crypto payments (Reguerra, 2025).

A significant turning point came in May 2025, when global crypto exchange Binance partnered with Bhutan's Ditiyul (DK) Bank to introduce crypto payment services in Bhutan. This initiative, known as the Binance Crypto-Powered Tour, effectively brought crypto payments into mainstream tourism and commerce. Tourists and locals in Thimphu and the tourist hub Paro could pay for a variety of services using crypto. This included flights, hotel stays, travel visas, government Sustainable Development Fees, and even street-side snacks. The president of DK Bank, Ugyen Tenzin, endorsed the move, suggesting that even though Bhutan's financial infrastructure is still developing, this leap could improve payment convenience and attract tech-savvy visitors.

Nearly 1,000 merchants signed up to accept crypto under this program in just a few months (Reguerra, 2025). This is a remarkable figure for a small economy, indicating strong interest from businesses (especially those catering to tourists) to embrace digital payments. And foreigners are allowed to pay using bitcoin.

For everyday Bhutanese, crypto use is still very new. As one local tour guide noted in mid-2025, people are only starting to wrap their heads around what crypto means, yet many are eager to learn and adapt. Bhutan's young population specially sees digital technology as part of the country's modernisation. The government has run financial literacy and fintech programs (since 2021) to educate the public on new financial technologies (Sergeenkov, 2024), which likely includes elements of cryptocurrency knowledge. This education push, combined with visible projects like the Binance pay partnership, has begun to shift crypto from a government secret into a topic of public conversation.

Economic Impact of Crypto Mining

Bitcoin mining venture has quickly grown to substantial proportions, making a noticeable mark on economic indicators. By 2024-2025, Bitcoin mining became a

significant economic asset for the country. The market value of Bhutan's known crypto holdings soared to the equivalent of a large share of the national economy. As of December 2025, Bhutan held roughly $1 billion in Bitcoin, which was about 29.3% of Bhutan's GDP (2025 GDP $3.41 billion). This made Bhutan one of the most crypto-exposed nations globally, with only bigger economies like the US and China holding more absolute Bitcoin. However, GDP share in value terms is different from actual contribution to GDP flow or government revenue.

If Bhutan mines Bitcoin, it is essentially producing an asset that can be sold for revenue. When those Bitcoins are sold or otherwise utilised, that would contribute to national income. Bhutan's government has indeed treated Bitcoin as a state asset that can fund expenditures. In 2023, the government was able to finance a civil service salary hike in part by leveraging mining profits – about INR 4 billion (roughly $50 million) was covered through mining revenues to pay for salary increases for public employees (Shivamurthy & Chandola, 2024).

Bhutan's partnership with Bitdeer and other private investors suggests there may be foreign direct investment (FDI) flowing into Bhutan's crypto sector (Bitdeer raising $500M for the project). This kind of investment could spur construction, jobs, and related services in Bhutan though exact figures on job creation are not publicly known.

By mining Bitcoin, Bhutan effectively diversifies its reserve assets. The crypto holdings can be seen as a supplement to foreign reserves, which is critical for a country that sometimes struggles to maintain adequate reserve levels. While mining has added a new revenue stream, it also comes with opportunity costs and macroeconomic side effects, especially related to energy.

Bhutan historically earned a significant portion of its revenue by exporting surplus hydroelectricity to India. As mining operations consumed more power domestically, electricity exports fell. Data shows that Bhutan's hydropower exports (in megawatt-hours) to India dropped markedly after 2019, and by 2023 export volumes were down by nearly half compared to the peak in 2020. For example, the Tala hydropower plant saw its export output drop from 3,389 million units in 2020 to 1,225 million units in 2023. The total export revenue from electricity fell from about 27.5 billion Ngultrum in 2020 to 16.7 billion in 2023 (Shivamurthy & Chandola, 2024), a substantial decline.

Paradoxically, Bhutan, a net power exporter, had to import electricity from India for more months of the year as mining expanded. Normally, Bhutan only imports a little power in winter when river flows are low. By 2024, Bhutan needed imports for four months of the year instead of three. This has contributed to a widening trade deficit with India, Bhutan's main trading partner. The Bhutan-India trade deficit increased by 60% in 2022-23, partly due to the shift in the energy trade balance (Shivamurthy & Chandola, 2024).

The import of mining equipment also affected Bhutan's current account deficit (CAD). In FY2022-23, Bhutan's CAD reached about 34.3% of GDP in large part because of capital goods imports for mining and reduced export earnings. This also drained Bhutan's foreign currency reserves in the short term. Bhutan spent a lot of money upfront and sacrificed some steady export earnings, in exchange for accumulating Bitcoins that might appreciate or be sold later.

The value contribution of mining is tied to the volatile crypto market. Bitcoin's price swings mean the dollar value of Bhutan's holdings can fluctuate wildly year to year (or even month to month). A bear market could diminish the value of what Bhutan has mined, while a bull market enhances it. This volatility means the contribution to the economy isn't as stable or predictable as, say, hydropower sales or tourism receipts. Policymakers must account for this risk. The Asian Development Bank noted Bhutan's growth outlook could be impacted by such volatility, cautioning careful management (Sergeenkov, 2024).

It reduced conventional export earnings (power), increased imports and debt (equipment financed by loans/bonds), strain on energy resources, macro-economic imbalances (trade deficit, reserve depletion in short term), and exposure to crypto market risk. So far, Bhutan appears to have managed these factors by treating crypto as a long-term investment. If Bitcoin prices remain robust and Bhutan's mining efficiency stays high, the operation could yield profits exceeding the lost hydro export revenue. In a sense, Bhutan is electing to convert water (hydropower) into bitcoins, hoping the latter appreciate faster than traditional assets.

Geopolitical Implications

The rise of Bitcoin and other digital currencies has not only economic but also geopolitical dimensions. In Bhutan's case and globally, cryptocurrencies intersect with issues of sovereignty, international relations, and global power structures.

Bhutan traditionally maintains a cautious foreign policy, heavily influenced by its giant neighbour India. Introducing large-scale crypto mining has added a new element to Bhutan's foreign relations. India has long been Bhutan's main partner in hydropower – funding and constructing dams, then importing electricity. Bhutan's diversion of hydro energy to Bitcoin mining potentially affects this mutually beneficial arrangement. If Bhutan exports less power, India gets less electricity from a friendly source and Bhutan earns less rupees, potentially straining the economic link. There's concern in Bhutan that crypto mining 'poses a new challenge to the win-win aspect of hydropower cooperation' with India, as one policy analysis noted. However, both countries are likely in dialogue to manage this - Bhutan wouldn't want to jeopardise its key ally's support. Bhutan may need to invest in new generation capacity (with India's help) to both mine crypto and continue meeting India's energy needs.

Officially, Bhutan has no formal diplomatic relations with China and has been wary of Chinese influence. Yet, the crypto mining venture has indirectly opened a channel to Chinese capital and technology. The Bitdeer partnership brings in a firm led by a prominent Chinese crypto entrepreneur (Jihan Wu). Much of the mining equipment came from China. If Chinese investors become involved in financing Bhutan's mining (Shivamurthy & Chandola, 2024), this would mark one of the first significant Chinese private investments in Bhutan. Geopolitically, this could be sensitive – India might worry about China gaining influence in Bhutan via economic means, and Bhutan's government will need to ensure it doesn't become dependent on any one foreign entity in this strategic sector. It's a delicate balance - benefiting from Chinese tech and investment without upsetting historical ties with India.

By mining and holding Bitcoin, Bhutan is also hedging slightly against reliance on traditional global financial systems. For a small country, having a reserve of Bitcoin provides a form of sovereign financial autonomy – it's not controlled by any other nation's central bank. This could be geopolitically useful in extreme scenarios. It aligns with Bhutan's independent streak in policy.

Bhutan's Digital Currency Portfolio

Given the secrecy until recently, details are gradually emerging. But there are very limited information available in public domain about Bhutan's crypto holding.

Bitcoin is the flagship of Bhutan's holdings. As of December 2025, Bhutan's government (through DHI) holds approximately 11,,286 BTC. In value terms, this

was about $1.03 billion(BitcoinTreasuries.com, 2025). Bhutan has been mining Bitcoin continuously since 2019 (Jitender, 2025), and possibly also purchasing or retaining all mined coins (minus what they may have sold for operational costs or reinvestment). The stash of 11k BTC suggests Bhutan accumulated a substantial amount each year.

Bhutan's crypto portfolio is not 100% Bitcoin. Reports indicate Bhutan also holds some Ether, the native cryptocurrency of the Ethereum network. Specifically, as of mid-2025, Bhutan held over $1 million in ETH (Baltrusaitis, 2023). This amount is relatively small (likely a few hundred ETH at most) and was possibly acquired through investing activities. The Finbold report confirms Ethereum as the second-largest digital asset in Bhutan's state portfolio, though it's tiny compared to Bitcoin. Having any ETH at all shows an intentional diversification – acknowledging Ethereum's prominence in the crypto market.

There is a hint that Bhutan, or at least one of its municipal projects (GMC), may hold Binance Coin (BNB), the native coin of the Binance ecosystem. In January 2025, Gelephu Mindfulness City announced it would include BTC, ETH, and BNB in its strategic reserves (Jitender, 2025). BNB's inclusion is likely tied to the partnership with Binance for payments – holding some BNB could facilitate transaction fees or incentivise Binance's involvement.

After BNB, BTC, and ETH, Bhutan sets eyes on emerging crypto investments' implies Bhutan might be open to exploring additional cryptocurrencies or crypto projects in the future. There's no concrete evidence that Bhutan holds other major coins (like Ripple's XRP, or stablecoins, etc.) in significant quantities as of 2025. The focus appears to remain on Bitcoin, with minor forays into top altcoins. Any other holdings would be speculative to list without data.

It's also useful to mention what form these holdings take. Bhutan's BTC is presumably custodied securely, possibly in cold storage by DHI or through a trusted exchange or custody provider. When Bhutan engaged with BlockFi and Celsius, it likely held some assets with those platforms (which might have included stablecoins or altcoins), but after the bankruptcy disclosures, those were presumably either lost or recovered and moved to safer custody.

Bhutan's Own Crypto

Bhutan announced TER as part of the GMC initiative, positioning the token as a bridge between traditional reserves and regulated digital finance. TER (from the

Dzongkha word for Treasure) is described as a physical gold-backed token issued by GMC with distribution and custody handled exclusively by DK Bank, Bhutan's licensed digital bank (Chen, 2025).

The project's technical and operational choices emphasise stability and institutional oversight. TER is issued on the Solana blockchain to leverage low fees and high throughput, while tokenisation technology partners provide the on-chain representation of allocated gold. Matrixdock (Matrixport's RWA unit) was named as the tokenisation technology partner to link allocated gold reserves to on-chain tokens and provide proof-of-reserve mechanisms (Rai, 2025). Early communications from GMC and partners stress that TER is designed to be accessible (low minimum purchase), transparent (on-chain auditability), and aligned with Bhutan's sustainability goals by choosing energy-efficient infrastructure (Ayan, 2025). Purchasers are meant to acquire fractional ownership of fine gold held in institutional vaults, with a low minimum purchase to broaden access to gold ownership without the burdens of physical custody.

Proponents frame TER as a tool for digital sovereignty and economic diversification by linking a sovereign-branded token to audited physical gold. Bhutan aims to offer a regulated, transparent store of value that complements existing national strategies for mindful innovation and financial modernisation. The GMC Authority and GMC leadership have emphasised stewardship, sustainability, and the cultural resonance of "treasure" as central to the token's narrative.

At the same time, independent observers and local reporting highlight practical risks and open questions. TER's credibility depends on robust, recurring independent audits, clear redemption mechanisms, and legally enforceable custody arrangements because the on-chain token represents off-chain assets, trust ultimately rests on custodial practices, audit transparency, and the regulatory framework governing GMC and DK Bank. Local commentary also notes that initial distribution may be concentrated within GMC's special administrative regime, which could limit immediate domestic liquidity and cross-border acceptance until broader legal and payment-rail integrations are established.

Commentators and local reporting highlight key risks. Custodial and counterparty risk (the peg depends on DK Bank and custodial arrangements), audit and transparency standards (frequency and independence of audits), legal enforceability

of redemption rights, and network concentration risk from relying on a single blockchain infrastructure. These concerns underscore the gap between on-chain claims and off-chain asset management unless governance and audit frameworks are rigorous.

Operational rollout details indicate phased availability—initial purchases through DK Bank with institutional custody and later broader integrations—while GMC and Matrixdock emphasise compliance, licensing, and the issuance of clear terms for redemption (specified gold bar or coin options) to build investor confidence. The project has attracted international media coverage and industry commentary, situating Bhutan among a small set of jurisdictions experimenting with sovereign-backed tokenised gold products.

If robust, recurring independent audits, transparent custody reporting, and legally enforceable redemption mechanisms are maintained, TER could serve as a model for sovereign RWA tokenisation. If not, it may illustrate persistent challenges in translating sovereign reserve assets into credible on-chain instruments. Policymakers and prospective buyers should request audit reports, custody agreements, redemption terms, and regulatory opinions before participation.

Future Outlook

Bhutan's venture into Bitcoin and digital currencies is an ongoing experiment that carries both promise and risk as it moves forward. Bhutan plans to massively scale its mining capacity (targeting 600 MW) (Sergeenkov, 2024). Achieving this will likely make Bhutan's crypto earnings even more significant, potentially bringing in greater revenue and possibly even enabling export of mining services. However, this scale raises questions of sustainability – if the electric grid handle it without compromising domestic needs or relations with India. Bhutan plans to build new hydro plants to cater to the increasing power demands (Dolkar, 2026). Managing the environmental impact (heat, electronic waste from old miners) will also be crucial to keep the "green mining" narrative credible.

Domestically, Bhutan might need to establish clearer regulations for broader cryptocurrency use. So far, it has cautiously allowed a sandbox for mining and a pilot for payments via an international player. If public crypto adoption grows, the RMA may implement rules for exchanges, consumer protection, or even taxes on crypto transactions. The success of the CBDC pilot (digital Ngultrum) will also influence how private cryptocurrencies coexist with a potential official digital currency. If the digital Ngultrum is launched nationwide, it could provide a stable

digital alternative and possibly integrate with Bhutan's payment systems, while Bitcoin and others remain investment assets and tourist-focused options.

The influx of crypto-related money could be channelled into other areas. Bhutan could use mining profits to invest in infrastructure, education, or technology startups, thereby converting digital wealth into long-term development. There is also the risk of over-reliance if Bhutan becomes too dependent on crypto revenue, a severe downturn in Bitcoin's price could shock the economy. Thus far, officials appear aware of this, hence talk of using some gains for salaries and presumably for shoring up reserves, which is a prudent approach.

Bhutan has a chance to present itself as a model for sustainable crypto mining on the world stage. This could attract partnerships and knowledge sharing with other countries interested in green energy crypto. Bhutan might assist or consult with other hydro-rich developing countries on similar paths. Conversely, Bhutan will have to carefully navigate its relations with India and China. It will likely ensure India remains a beneficiary of any expanded power generation, perhaps by dedicating new plants for export to compensate for those used for mining.

Engaging deeply in crypto might spur a broader digital economy in Bhutan. We might see Bhutanese talent development in blockchain technology, software development, and cybersecurity (to safeguard its assets). The mention of a decentralised digital identity app launch hints that Bhutan is interested in blockchain applications beyond mining. Over time, Bhutan could become a niche tech hub in the region, specialising in blockchain, much like how Estonia became known for digital governance. This would further integrate with the nation's goals of modernising the economy and providing new opportunities for its youth.

Conclusion

Bhutan's journey with Bitcoin and digital currencies – from a quiet adopter to a headline-making crypto-miner – is a bold and visionary move for a small nation. In a span of just few years, Bhutan has built a new pillar of its economy virtually out of thin air. The history of Bitcoin globally provided the blueprint, and Bhutan tailored it to local strengths. The infrastructure Bhutan invested in now stands as one of the most significant high-tech installations in the country. The rationale behind it – economic diversification, using green energy, and seeking resilient growth – aligns with Bhutan's development needs, though it is not without controversy or risk. On the consumer front, Bhutan is gradually opening the gates

for digital currency use, ensuring that the benefits of the crypto age can be shared by its people and not just kept in government vaults.

Geopolitically, Bhutan's crypto strategy highlights how technology can alter a country's external engagements in unexpected ways, introducing new factors into its relations with major powers. As of 2025, Bhutan appears committed to continuing its crypto experiment. The world will be watching to see if this Himalayan kingdom can maintain its balance – both figuratively (between innovation and caution) and literally (between economic gains and energy demands) – and perhaps offer a new development model blending sustainable energy and digital finance. If successful, Bhutan could very well transform its economy and inspire others, all while charting its own independent course through the currents of the digital revolution.

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