

# HAPPINESS

Development with Values



*"Our greatest collective responsibility now is to build upon His Majesty the Fourth Druk Gyalpo's legacy. To hand over to the next generation, a country that has achieved as much or even more than it has over the previous three and a half decades. To leave behind a much stronger nation that enjoys even greater peace, prosperity, and happiness"*

*His Majesty the King*

**ePIS**

**PERSONAL  
FINANCE**

**THIMPHU  
STRUCTURE PLAN**

**Working with  
People in Bhutan  
– 35<sup>th</sup> Anniversary  
of JICA Volunteer  
Program**

*In conversation  
with the JICA  
volunteers*

**CARBON NEUTRALITY**

**BHUTAN TELECOM-**

*Serves. Protects. Rewards.*

**Effects of Cyberbullying**

# HAPPINESS

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# At the center of a plan

The share bazaar, the Thimphu Structure Plan, an Electronic Patient Information System, a City Bus Service. On the surface, they are items that are worlds apart from each other, each individually possessing very differentiating characteristics. If you are looking for a unifying theme, there actually might be one. It's – Bhutan, the country where they are operating and receiving upgrades. But if you try harder to stitch them together on common grounds; it is indeed a rational expedition. They are all avenues where due diligence must be honored in terms of hard work, effective time management, the zeal to keep improving, the possession of an ever-evolving inner will to upgrade – all of which can be summed up with one word – planning.

The share bazaar in Bhutan is the Royal Security Exchange of Bhutan. Trading shares, becoming good, better and the best at doing it to spot profitability, having the ability to predict market trends; one might go as far as to say, is a state of having attained financial enlightenment. This buzzing playing field has its players readied by being effectively schooled in personal finance, throughout a lifetime actually. It's the point of origin where taking things seriously or not will determine how they end up commanding or slaving for life.

The TSP or Thimphu Structure Plan is a strategic plan document; that which did not fall out of the minutes of a hastily held brainstorming session. It is the outcome of most laborious discussions in a series that engaged stakeholders across the spectrum wherein all involved

are themselves at the forefront of public service delivery contributing valuable inputs to frame THE plan that properly addresses problems, their solutions so that they don't branch out to problems of their own. The TSP is ready and in its stage of being executed. The plan is for a city, but the result benefits the nation at large.

The obvious objective of a plan is 'to succeed.' This 21st Century is the supposed age of information and the knowledge worker. It is the age of convenience. And so the ePIS has come forth as the efficient plan that is currently in action to rid the need for patients to painfully wait out at long queues carrying stacks of medical history prescriptions and wasting time and energy explaining it to every counter they visit.

A volunteers system planned and efficiently employed by a nation stands to benefit the nation in more ways than actually imagined... or planned. The JICA's JOCV marked its 35th year operating in the country and demonstrated a historical conclusion of how expert assistance, correctly timed and correctly placed funding can make the desired lasting change so often desired but frequently displaced to a distance.

The City Bus Service in the capital city in that manner has hauled resource and manpower to directly benefit citizens by easing their travels from point A to B; but at the same time, it has indirectly helped the nation reap traffic decongestion benefits, economic benefits and environmental benefits.

A Plan is at the center of everything.



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ROYAL SECURITIES EXCHANGE OF BHUTAN



## UP CLOSE WITH PERSONAL FINANCE

As the presumed 'highly advanced civilization,' humankind believes, or likes to believe - it has a handle on life, a firm grip on all things that matter. But that's just speaking very generally. When the magnifying lens gets closer, reality is more telling of the very revealing existential truth of individuals at individual levels.

Discovering fire was a life-changing moment, a really big deal, in that illuminating sense. The invention of the light bulb was a bigger deal for all the electrifying possibilities that ensued. The advancement in tech and its flowing benefits are nothing short of miraculous wonders. We have gone on as far as to declare — it's a brave new world.

Be that as it all may, money, by all measure continues to bless (or haunt) humanity as the invention that is stitched into the very fabric of lives and livelihood. So yes... money. It will continue to be the superstar invention that influences big and small decisions of our lives. In the mad rush and the commotion though; most of us are skipping a very fine detail. Who is serving who? Who has become the master? Who is the servant?



Saving



Priority



Restraint



Investment



Knowledge



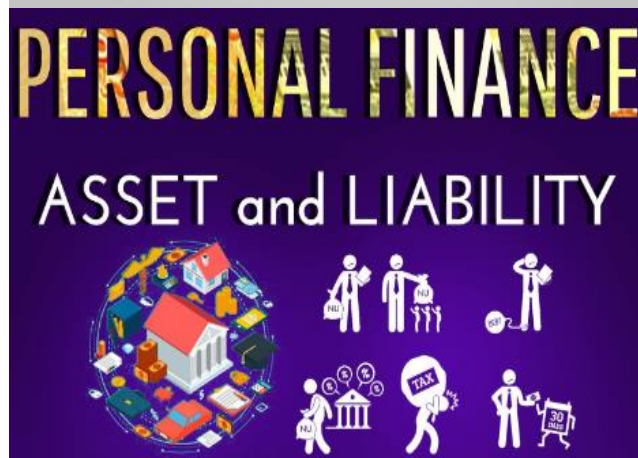
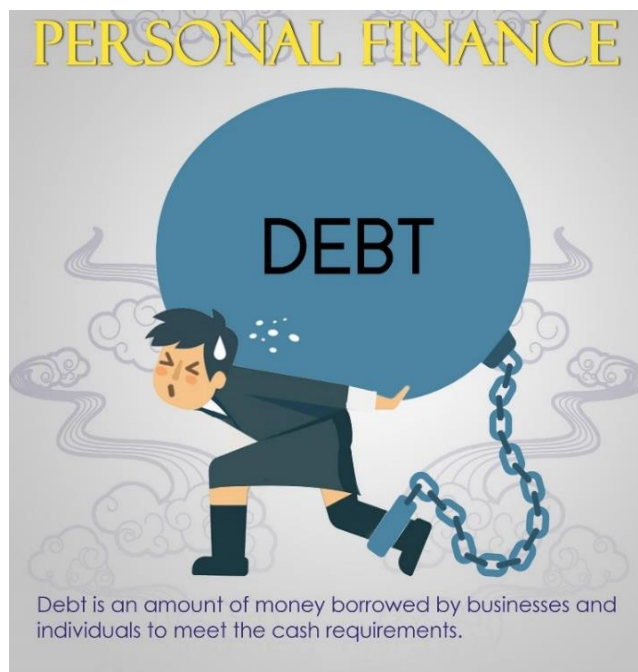
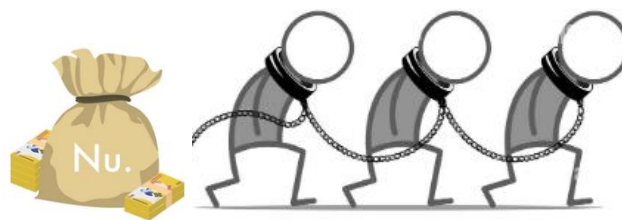
## BRAVE NEW WORLD OR SLAVE NEW WORLD – YOUR CHOICE!

The rules are simple. Those who understand it, manages it, commands it. Those who don't – serves it, slaves for it. Funny thing though, the great leveler, the proverbial equalizer; it has always been within reach, around for people to just reach out and use to their benefit. In the case of an Information Technology-powered world, especially but not confined to digital domains like Social Media, it just happens to be, a little common sense, and some patience to make life spent better. In the world of money or finance it simply goes by the name — Personal Finance. In the end, it is personal behavior that defines or decides whether it should be a world one controls, or whether it should be the world that controls you.

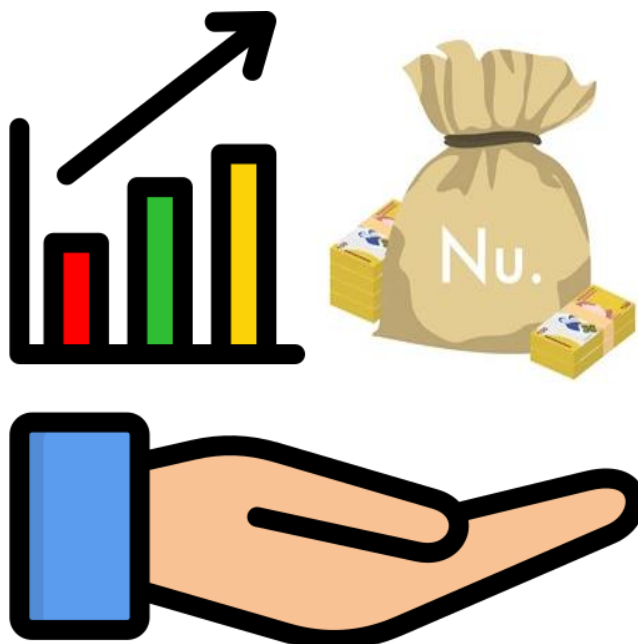
With that, let us introduce Personal Finance and see how it helps us all, be all that we want to be. In charge of our money and financial matters and not the other way round, where our finances have overpowered personal lives so much so that we have bowed and surrendered to a supposed fate that really in essence could have been effectively managed by following a simple set of rules, personal finance rules.

One might say—there's no enigma around personal finance—because what is not personal about finance; your own finance. Well... to the person asking that, he's right about the 'Personal' bit, since personal finance is financial management not of an office, organization or a government but of one's own – 'Personal' Finance. However, 'Personal Finance' is presented as a tool, a device and not necessarily as a pair of words replaceable by others that are synonymous or interchangeable with it.

Every person on this planet earth shares a common goal, the singular aspiration to live life as comfortably as possible. For each person, money is important to make life better, comfortable. It is an unwritten law, a fundamental responsibility, of sorts, to take care of our finances- if we are to accomplish that. We have to understand the importance of personal finance in our lives. We have to understand the science behind money management. Personal finance deserves our undivided attention, if we believe, that we deserve a good and comfortable life (for the way we have earned, managed and spent our money/finances). There is a reason why personal finance has come to gain so much prominence, because like it or not, no matter how much we say 'we know or understand it,' the undeniable truth is; only a few really do. After all, why are some of us so comfortable with it, why are some of us so miserable at it.



The truth is simple. Those who understand it Manage it, Command it. Those who don't, Pay for it, Slave for it. That, is money. And that, is Personal Finance



## THE MANY WAYS TO CALL IT — PERSONAL FINANCE

Personal finance is financial management done by individuals. Personal finance is about managing your money to meet your personal financial goals. It involves evaluating your income (the money you earn on a regular basis), your recurring expenses (like rent or loan and insurance payments), and how much you want to save or want to invest.

Personal finance is a term meant to describe managing your finances through budgeting, spending and savings. It involves long-term planning and considers potential financial risks, retirement and estate planning, investments and how your financial situation evolves over the course of your life.

Personal finance is about managing your income according to your financial situation and creating a budget for how you spend and save your money.

Personal finance involves evaluating your income, your financial needs, and your expenses and allocating your money accordingly.

Personal finance incorporates how you manage all aspects of you or your family's finances – both short-term and long-term. The term is also used to describe an entire industry devoted to the services and products designed to help individuals manage their finances and take advantage of investment opportunities.

Personal finance is a vital part of not only managing your day-to-day financial needs but also planning your financial future. The sooner you get a grip on personal finance, the better your long-term financial prospects will be for things like investing or planning for retirement. By understanding the elements of personal finance, you can better understand opportunities to improve your finances. This understanding can help you budget for current needs while planning for long-term financial goals.

Personal finance is about making and meeting your financial goals; whether you want to own a home; help other members of your family or friends; save for your children's college education; support causes that you care about, plan for retirement, or anything else. It encompasses banking, budgeting, handling debt and credit, and investing.

Personal finance is where financial literacy translates into individual financial decision-making. How do you manage your money? Which savings and investment vehicles are you using?

# PERSONAL FINANCE

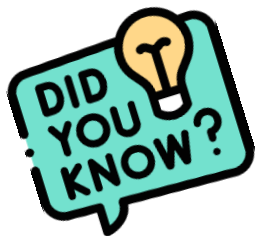
## BUDGETING

Budgeting is the process of creating a plan to spend your money. This spending plan is called a **budget**. Creating this spending plan allows you to determine in advance whether you will have enough money to do the things you need to do or would like to do.

## INVESTOR EDUCATION

### Stock Market

The stock market refers to the collection of markets and exchanges where regular activities of buying, selling, and issuance of shares of publicly-held companies take place.



### WHAT IS FINANCIAL LITERACY?

Financial literacy is the ability to understand and make use of a variety of financial skills, including personal financial management, budgeting, and investing. It also means

comprehending certain financial principles and concepts, such as the time value of money, compound interest, managing debt, and financial planning.

Achieving financial literacy can help individuals to avoid making poor financial decisions. It can help them become self-sufficient and achieve financial stability. Key steps to attaining financial literacy include learning how to create a budget, track spending, pay off debt, and plan for retirement.

### WHAT IS FINANCIAL GOAL?

A financial goal could be something big like planning for your retirement fund or saving up for a car, or it could be something smaller, like saving Nu 50 every month or buying your first share in the RSEBL stock market. Personal finance is exactly that: personal. The first step is figuring out what you want to achieve. Then you can calculate how much money you'll need to allocate each month to achieve that goal.

That said, personal finance is not a one-and-done deal. Keeping track of your finances is a lifelong exercise. As we evolve as people, our financial needs and circumstances might change as well. So it's a good idea to re-evaluate your personal finance goals every few years and adjust where needed.

### AREAS OF PERSONAL FINANCE

The five areas of personal finance are income, saving, spending, investing, and protection.

**Income:** Income is the foundation and the starting point of personal finance. It is the entire amount of cash that you receive and can allocate to expenses, savings, investments, and protection. Income is all the money you bring in. This includes salaries, pension, wages, dividends, and other sources of cash inflow like income from rental properties or investments.

**Spending:** Spending is typically where the bulk of your income goes. Spending is whatever you use your income to buy. This includes rent, grocery, loans/mortgage, automobile maintenance, home repairs, and home furnishings, eating out, travel, hobbies, and entertainment.

Controlling the amount of money you spend can allow you to set aside money to grow your financial future. Being able to manage spending is a critical aspect of personal finance. You must ensure spending remains less than your income; otherwise, there won't be enough money to cover expenses and you will probably fall into debt. Debt can be devastating financially, particularly if the interest rates are high.

**Saving:** Savings includes any money from your income that you do not spend but set aside for the future. It is necessary to provide for potential expenses – planned or unplanned.

Everyone should aim to save- for a rainy day or emergencies. This means not using all your income, which can be difficult. Regardless, everyone should strive to have at least a portion of savings to meet any fluctuations in income and spending—somewhere between three and 12 months of expenses. Beyond that, cash idling in a savings account becomes wasteful because it loses purchasing power to inflation over time. Instead, cash not tied up in an emergency or spending account should be placed in something that will help it maintain its value or grow. This is where investments come in.

**Investing:** Investing is different from savings. While savings are what's left over from your income, investments are purchases that allow you to earn future income or savings.

Investing involves purchasing assets, usually stocks and bonds, to earn a return on the money invested. Investing aims to increase your wealth beyond the amount invested. Word of caution though – Investing comes with an element of risk because not all assets appreciate and can incur a loss.

Investing can be difficult for those unfamiliar with it. It helps to dedicate some time to gain an understanding through readings and studying. If you don't have time, you might benefit from hiring a professional to help you invest your money.

**Protection:** Protection refers to the methods people take to protect themselves from unexpected events, such as illnesses or accidents, and as a means to preserve wealth. Protection includes life and health insurance and estate and retirement planning.

Protection from financial risks can be handled through a variety of financial products including pensions, property/casualty insurance, life insurance and health insurance. These can provide financial security or protection from unexpected financial costs.



## PERSONAL FINANCE MATTERS – IT SAVES!

If you're not breathing oxygen and if you don't possess a digestive system, then you probably have no source of worries whatsoever in life. But that is not the case. In the time that it takes for food or drink to pass the mouth and slide down the throat to travel to the stomach and thereafter exit the body in an orderly fashion (as an entirely new product); realization would have dawned on the individual that the presence of a decent flow of money is as important as air in the lungs and blood in the body. The chain of afterthoughts strike a sharp reminder that nothing comes free in life; that you are the only one looking out for you; that, you become a burden if someone besides yourself has to look out for you.

Your body is at ease, hip to the activities it indulges in. But the mind is a train of rumination, an electrically buzzing field of endless thoughts. Meeting the daily and regular monthly and yearly expenses and payments. Meeting the ever-growing cost of living, worrying about educational expenses, and concerns about life in old age, going into debt, worries about not having a good job, worries about losing a job... the list goes on. Depending on how workable plans pan out or not; living and sustaining life or lifestyles weighs heavy on the mind, body and soul. The fast-paced life is exciting but it is also witness to growing mental health issues - anxiety, insomnia, depression.

A good grip on personal finance will keep those worries at bay. Managing your money well is a most effective way to make life more secure. And there is- no one specific area to strike. The good personal finance practices presents its opportunity in something as routine as buying grocery to taking a life-changing decision to mortgage land and properties. Financial decisions hit us every day. Therefore, it is important to learn money management skills as soon as possible and to regularly analyse your personal finances.

## HOW TO WIN WITH PERSONAL FINANCE AND INFLUENCE SUCCESSFUL FINANCIAL PLANS

Our lives are about happiness or sadness, ups and downs. Our financial lives are about more or less, big or small, and up or down. There's no separating or categorizing because where the two worlds collide is where the ways and means intricately intertwine with the hopes and dreams.



## PERSONAL FINANCE

### Steps Of Financial Planning



1. Assessing where you are now in financial terms
2. Setting Goals
3. Creating a Financial Plan
4. Implementing the plan

## PERSONAL FINANCE



- Something generally accepted as a medium of exchange, a measure of value, or a means of payment.



As in life, so it is in the universe of personal finance; you pick up basic knowledge like crawling before walking. With the confidence of walking very confidently you are able to run. Likewise, it is erring on the side of caution with personal finance; when one is able to discern risks and rewards and go a level up in making bigger financial decisions. With that, individuals get more out of their money and commensurately, life is better by that many folds.

Personal finance is not the most uniquely invented device, but those who diligently pick up on it indeed do it better than their apathetic peers. Consequently, the quality of life also demonstrates marked differences – between those who ‘go with the flow’ and those who act with a financial plan.

Where there is income there exists a budget that is unavoidably followed by spending. The more rewarding aspects of saving and investing are also part of the process but commonly ignored or done improperly by all involved. Personal finance teaches us that it is easy to learn how to budget, spend, save and invest money over time. With enough years diligently devoted to good personal finance practices, individuals are able to make financial plans that are about meeting short, medium or long term goals successfully. Proper personal finance knowledge helps us make informed choices. It is important to learn about risks so that you can earn returns.



## A CODE OF CONDUCT FOR PERSONAL FINANCE

### 1. Know your income

Be clearly aware of your income before you commit to any significant spending such as a debt, car loans or a mortgage. Any or every financial plan of yours will not be successful, if you don't know how much you bring home after deductions and taxes. Before deciding anything, ensure that you know your take-home pay.

### 2. Pay yourself first

Set aside money from each paycheck for unexpected emergencies and long-term goals before paying your bills. It's important to pay yourself first as it ensures money is set aside for unexpected expenses, such as medical bills, a car repair, day-to-day expenses if you are between jobs.

Financial experts generally recommend putting away 20% of each paycheck every month. You should continue funneling the monthly 20% toward other financial goals, such as a retirement fund or a down payment on a home.

### 3. Start saving now

Ideally, you should start saving for your future while you're still young. The longer you save, the more interest your savings will earn.

### 4. Create a budget

Set up an annual budget of income and known expenses. Use this as a roadmap to build your savings while living within your income. A budget is essential to living within your means and saving enough to meet your long-term goals.

### 5. Plan your financial future

Take time to write down your financial goals – both short-term and long-term. Then work out a realistic roadmap to get you to those goals

### 6. Never borrow what you can't repay

Make sure you can pay off what you owe. This will improve your credit overall and keep your debt from getting out of hand. However, most people have to borrow from time to time,—for example, if it leads to

acquiring an asset. Taking out a mortgage to buy a house or build one is an example.

### **7. Remember the “Rule of 72”**

To figure out how many years it will take your savings to double, divide 72 by the interest rate of your savings.

### **8. Buy insurance**

Health, automobile, home and life insurance can protect you and your loved ones from financial hardship in the event of accidents or illness.

### **9. Don’t expect something for nothing**

Be wary of get-rich-quick schemes. If it sounds too good to be true, it probably is. And in the first place why aren’t everyone else around you doing it if it’s so attractive.

### **10. Compare interest rates**

Whether it’s saving for your future or looking for the right credit/loan service, look for the best interest rates first to earn more interest on savings and pay less interest on debt.

### **11. Remember that high returns mean high risks**

High return on investment typically means you are going to have to take higher risks. Diversifying your investments can spread that risk around, protecting your investments.

### **12. Your credit past determines your credit future**

Your credit record is kept for years by credit bureaus. That would be the Credit Information Bureau (CIB) in case of Bhutan. If you have trouble paying loans or debt, that record will hurt your chances of getting credit in the future. Credit needs to be managed properly. You should pay without fail every month or keep penalties at a minimum.

## **A PERSONAL FINANCIAL PLAN — AND ALONG CAME THE BENEFITS**

**It fights inflation:** You probably heard your grandparents say how cheap things were back then. How unimaginably expensive they are now. Prices rising over the years is known as inflation. With inflation, there is a steady increase in the price of goods and services over time. If you are not careful, it also eats into your savings. Here’s a simple example to illustrate its effect.

Let’s say a packet of doma costs Nu 10 today and you have Nu 100. With this amount, you can buy 10 packets. Over the next one year, imagine you keep Nu 100 in a bank that offers you an annual interest rate of

5%. At the end of the year, you have Nu 105 with you. But one year later, let’s say the price for the packet of doma increases to Nu 11. This means you have to pay Nu 110 to purchase the same 10 packets of doma next year. But since you have only Nu 105, you fall short of Nu 5. This is how inflation eats into one’s savings. It reduces purchasing power, and you have to pay more money to buy the same goods.

You can combat inflation by investing in avenues that offer better returns over time. For this, financial planning is critical.

**It checks in on your financial plan:** The financial planning process is not about simply investing money. You have to monitor how it is performing; quite regularly in fact. No problem if they are performing. But if they are not, then you may need to replace them with better performing funds.

You also need to follow your financial plan because as you grow older, your goals and dreams evolve. For instance, your financial priorities may change after the birth of a child. Now, you need to accommodate the expenses and objectives of a new member in your family.

## **FAIL TO PLAN, PLAN TO FAIL**

Aging into the winter of our lives is imminent. There’s no stopping that. However we can start planning toward our financial winters and make it as comfortable as possible. When a personal financial plan is in action, it charts a path with clear directions where you meet your goals, reaching them at all the right points in life. Moving forward with a financial plan that is powered by the time-tested knowledge of personal finance – it’s the very dependable way to go through life. It sets the tempo of your life whereby the journey tends to be healthy for the head, heart, mind, body and soul.

Starting early, starting young is most ideal. But it’s also – never too late to start. Moving, is always better than ‘stuck.’

**References:** *RSEBL; investopedia.com; yourmoneyvehicle.com; bitpanda.com; annuity.org; <http://spero.financial>; franklintempletonindia.com; NSDL Primer On Personal Finance - Your step-by-step guide to wealth creation*

# Working with People in Bhutan – 35<sup>th</sup> Anniversary of JICA Volunteer Program



*His Majesty The King graced the celebration of the 35th Anniversary of JOCV in Bhutan on 27 October, 2023. The celebration was attended by the Prime Minister, the Ambassador of Japan to Bhutan, and other officials and dignitaries.*

If you were a child growing up in the 80s and 90s; this much is true. Martial arts movies were all the rage and you have never-so-much-evermore wanted to be a Samurai or a Ninja in those years, than you can ever remember. And where have we seen those fantastic characters come to life and in action? That answer would point to the array of Japanese electronic brands—Sony, Sharp, Panasonic and Hitachi video electronic products—that were all the rage and picking up in popularity and demand. Those were the years of technology picking up in usage among people. Being the first household to buy and use a ‘Made in Japan’ rice cooker was a big deal in the neighborhood. Having a Video Cassette Player, TV Screen and a Music Player was pretty much staple for the living room (‘sitting room’ as was known those days). The crowning glory to all that was if you owned a Toyota Corona, Toyota Corolla, a Nissan, or a Mitsubishi car and have it parked

out front. Anything and everything out of Japan is hailed as ‘The highest quality.’

That, is a simple vignette of how Japan was a household name in Bhutan; even in a time when people had simply not seen enough of Japan in a most wholesome sense. So what did give Bhutan and Bhutanese a closer, warmer, familiar, friendlier and more cherished sense of Japan and Japanese? The answer is an acronym — J.I.C.A.

JICA or Japan International Cooperation Agency and its Japan Overseas Cooperation Volunteers (JOCV) program in its many years of operation in Bhutan has rendered assistance to the country in terms of granting funding and technical assistance in various developmental fields such as agriculture and forestry, education, health, culture, sports, transport,



architecture and infrastructure, vocational training, and technology among others.

The presence of Japanese assistance toward Bhutan's development programs is nearly as old as the country (if counted in terms of its developmental years) – 1961 was the year the country ended a self-imposed isolation policy and opened its doors to the world; Come 1964, Bhutan received the first Japanese national who was an agriculture expert.

## Volunteers incoming; 35 Years of JOCV

Japan and Bhutan continue to enjoy good relations today, from a connection that goes back as far as 1964. That would be the year when the first Japanese national came to work in Bhutan. None is more memorable among Bhutanese than Dasho Keiji Nishioka. His Majesty the Fourth Druk Gyalpo conferred the *Buray Marp* (red scarf) and the title of Dasho to him in 1980 in recognition of his services to Bhutan.

The JICA Bhutan Office has worked to enhance the socio-economic development of the Bhutanese people since 1987. Its volunteer program was formally initiated in Bhutan in 1987, with the signing of the JOCV Dispatch Agreement between the governments of Japan and Bhutan. The first volunteers were sent to the Agricultural Machinery Centre in Paro in July 1988.

Over the years, JICA has dispatched a total of 641 Japanese volunteers in 14 dzongkhags in the country. The JICA volunteers stationed a marked presence in their respective fields of operation having contributed to a diverse range of fields such as agriculture and forestry, education, vocational training, architecture and infrastructure, and health, among others.

The close relations between Japan and Bhutan have been enriched by the Japanese nationals who lived and worked across Bhutan through the JOCV program. The volunteers have worked to enhance Bhutan's development efforts in various sectors. They have contributed significantly, and meaningfully to the development and modernisation of the country providing much needed expertise.

In the meanwhile, though, and in the time they (volunteers) spend in the country, the experience has been that of warm people to people exchange in culture, lifestyle, language, food, music, hobbies and so much more. The friendships made and the bonds forged have gone on to foster strengthened relations between two peoples and two countries.



Japanese assistance to Bhutan is reminiscent of the proverbial footprints in time wherein the timeline is dotted with every other form of assistance in various fields and the long line of volunteers who have visited Bhutan and those who continue to visit





Celebrating

35 years of JICA Volunteers  
in Bhutan



The Secretary of the Ministry of Foreign Affairs & External Trade Pema Choden, Ambassador of Japan to Bhutan Hiroshi Suzuki, along with officials from the Embassy of Japan, Japan Foundation in New Delhi, JICA Bhutan Office, and Senior Government Officials attended the ceremony



## Japan Week

This year, the Embassy of Japan organised the annual Japan Week in Bhutan from 27 to 31 October. The Japanese Embassy in New Delhi has organised the Japan Week in Bhutan annually since its formal launch on 22 October in 2006 as part of the 20th anniversary of diplomatic relations between Bhutan and Japan.

The Clock Tower square in Thimphu, the venue for the Japan Week event was abuzz with people and activities. The culture, food and beverage of Japan on display at the numerous stalls are easily familiar for the visiting Bhutanese. You would have witnessed this with those eagerly spotting the *Yukata* for a Selfie Photo-Op or the small crowd continuously gathered at the Sake-tasting counter.

The celebratory ceremony in Thimphu featured demonstrations by the Bhutan Karate Association and the Bhutan Judo Association, and Japanese music performances by artists from Japan and students of Pelkhil School. In the whiling moments though, and woven into the joyful commotion is also the unspoken thoughts among many as they reminisce how the Japanese volunteer's intervention has made things easier, better, more efficient in all the respective fields they operate in.

The Japan Week celebrations, in the backdrop of the 35th Year Anniversary of JOCV this year is more than anything a sincere gesture of saying Arigato (Thank you) to the institution of JICA and especially to the every other volunteer that contributed physically, emotionally and intellectually to the development and modernization of Bhutan.

The Japan Week held annually has been an opportunity for the people of Bhutan, especially the youth to better understand Japan's rich history and diverse culture, thereby further strengthening the close bonds of friendship and cooperation which exist between Bhutan and Japan.



Q&A

# In conversation with the volunteers



**Name: Mr. Atsushi KUMATA**

**Assignment: Mushroom Growing Expert**

**Assignment Agency: National Mushroom Centre, MoAL, Wangchutaba, Thimphu**

**Please tell us about your early life, your education and professional life, your hobbies.**

I was born and grew up in Fukushima Prefecture until graduating high school. I spent 10 years in Tokyo as a student and graduate student of the University. After completing a doctorate course I researched and spread mushroom cultivation in Fukushima Prefecture for over 30 years. In particular, I made efforts to do physiological and breeding research on the Nameko mushroom.

I was a Judo player from junior high school to University. I played Jujitsu and Iaido in Japan until recently. I like to do traditional martial arts and motorcycle touring.







**What drives you to volunteer, to work across the world? Tell us of your experiences in the various places that you have done work as a volunteer?**

I think that my current knowledge and skills aren't mine because it is obtained from society. So, I have to give back to society. My voluntary activity after retirement is one of the ways of it.

It is my first experience of overseas voluntary activity in Bhutan. However, I had the experience of supporting Asian and African researchers in Japan. When I was a graduate student, I supported chemical analysis and master's theses of graduate students who came from Nigeria, Indonesia, South Korea, and so on. I was in charge of technical training for foreigners from Bangladesh, Ghana, China, and so on in my former institution. I understood the differences in values and customs of each country through those activities. I realized that our Japanese thought was only one of them and we had to respect each other. But I believe only the posture and thought against science is universal and have to tell it for developing countries.

For private and job trips, I have experience going to 7 Asian countries and 8 European and American countries.

**How did you become a JICA volunteer for Bhutan? How long have you been a JICA volunteer in Bhutan?**

I hoped to do voluntary activity in Central Asian countries, I just found the recruitment of mushroom cultivation for Bhutan in JOCV. Both place and specialty were ideal for me and had no choice except for this recruitment for me. I came to Bhutan in August, 2022 and started my voluntary activity at NMC in September of last year.

**What areas of development have you volunteered in during your time as a volunteer in Bhutan?**

My specialty field of voluntary is mushroom cultivation and I was assigned to NMC in Thimphu. The main role of NMC is spreading spawns of shiitake and oyster mushrooms and mushroom cultivation techniques for farmers. So, I have made an effort to contribute to improving the stability of mushroom cultivation and to assist the research work.

**Tell us of your current area or areas of operation as a volunteer/expert.**

NMC started developing new mushroom cultivation recently, I have been supporting this research by collecting many kinds of wild strains and cultivating them. We have developed Nameko cultivation using wild strains in Bhutan and have been comparing those domestic strains and Japanese strains in physiology and DNA analysis cooperative with the Japanese University.

We have plans to export bed log cultivated Nameko to Fukushima Prefecture which has been inhibited from eating wild and wild cultivated mushrooms by pollution of radioactive materials by nuclear power plant accident since 2011. We developed healthy mushroom soup collaborated with Amankora and will continue developing other mushroom processing products for export. We would be happy if young generations joined this project.

Many people are focused on this project plan because the Nameko cultivation method was developed in Fukushima Prefecture. Also, people, who know our recent academic paper which says that 99.7% of Nameko circulating in Japan originated from one fruiting body which was collected in Fukushima Prefecture over 50 years ago, are interested in this plan. This project is expected to increase income in rural area residences in the future.

On the other hand, I'm supporting new research on the efficient use of waste in agriculture and the food industry by using mushroom cultivation. The purpose of it is to construct efficient cycling of natural resources in all crops centering mushroom cultivation with their decomposer role.

**Please tell us about your life experiences in Bhutan in terms of people and culture.**

My experience in exchange of culture and people in Bhutan is only one year and three months, but it was inferred for my life inspection.

I have always been rushed by something in my life in capitalist ideology in Japan. I realize nobody is rushing me except for myself.

Also, I understand capitalism is an important ideology but that alone doesn't make me happy. It is necessary to get some amount of money for a happy life but money is of no value moderately to devote all my life. I spent too large a part of my life for work being rushed in Japan, I want to spend the remainder of my life for the happiness of people and myself.

**Japanese are respected/reputed for their high regard for time, and diligence toward work. What is your opinion of the Bhutanese work culture (professionalism, time management etc.)?**

Japanese people tend to care about the eyes of people and appeal to their diligence and discipline. It may contribute to improving the workplace atmosphere and staff productivity but 'over care' may lead to mental fatigue for each individual.

Bhutanese people don't look like over care about the eyes of people and the society of Bhutan looks more stress-free than Japan. Time management in Bhutan doesn't look strict like in Japan, but I think that they may be strict about individual professionalism as in Japan.

**As a citizen of a nation that is highly advanced what is your world view of Bhutan (a country that was isolated from the world till 1960 and only opened up for development from 1961)?**

All the most developed countries have been aiming to develop quickly and believe it leads to happiness for the nation. They have never thought about the harmful effects for people with the rapid development. On the other hand, Bhutan's government has been developing infrastructure slowly to avoid harmful effects on people since 1961. Bhutanese people understand rapid development doesn't lead to the happiness of the nation. They know, the most important is to preserve happiness even in a capitalist society.

**What do you think of Bhutan's pursuit of GNH as a development philosophy as opposed to the rest of the world's hailing GDP as the progressive marker?**

I think that many countries understand that GDP is nothing more than one of the national economic indexes. Also, they recognize that the GDP figure does not relate happiness of individual people. But still, due to totalitarianism as a nation, they were aiming to increase that figure among capitalist ideology.

GNH philosophy, which was advocated by the Fourth King of Bhutan, had a significant impact on the thought of those capitalist countries. This new philosophy allowed capitalist countries to think about the true happiness of individual people, rather than development necessarily being just. But we still don't have the answers to How to Balance Development and National Well-being. I think that capitalist countries, together with Bhutan, must continue to seek answers to this question for future generations.



**What is your take on the GNH Surveys in Bhutan and its effectiveness in helping the country achieve happiness for its people (in terms of prioritizing balanced socio-economic development, preserving environment, preserving culture; and ensuring good governance)?**

All developed countries had aspects that preserving the environment and culture tended to become a sacrifice to establish rich and strong nations in the last century. It is the same tendency in developing countries for economic development in this century.

Bhutan is one of the most biodiversity-rich countries in the world and the remaining traditional culture because of being an isolated country until 1960. Bhutan government has been on the path to develop while being considerate of the remaining priceless biodiversity and culture since 1961. Many countries focus on and expect how to preserve and effectively use priceless treasures for developing Bhutan. Also, I expect it and would like to contribute from the side of treasures of biodiversity mushrooms in order to keep a balance of preservation and development.

**Please add anything that you wish to add since the main objective is to feature the experience, life and times of Japanese volunteers who have lived, worked and helped make a difference for the country in various fields.**

It is regrettable for society and individual young generations that Bhutan has a social problem of spilling young generations into Australia for money. I could understand the situations of the young generations after coming to Bhutan. If I were the Bhutanese young generation, I would have to select to go to Australia also. However, I would like to contribute to constructing a new original social system in Bhutan, which is balanced development and preservation, after returning to Bhutan from Australia.

I expect that the young generations, who come back to Bhutan from overseas, will establish a new society in which nobody has to choose to move to other countries for money to cooperate with the young generations that remained in the country. If it becomes true, I expect that it might be a new economic model next to a capitalist society in the world.





Q&A

**Please tell us about your early life, your education and professional life, your hobbies.**

I was born in Tokyo, the capital of Japan, and lived in Tokyo all my life until 2022 when I came to Bhutan. I have loved exercising and playing sports since I was a little girl and started thinking about becoming a HPE (Health and Physical Education) teacher when I was in high school. I was a member of the tennis club in junior high school and the football club in high school. After graduating from high school, I played in the flying disc club while studying HPE at university for four years.

After graduating from university, I had worked as a HPE teacher at a government high school in Tokyo for six years. After school and on weekends, I coached the girls' football team and was as active as my students. Exercise and sports are part of who I am. However, when I was a small child, I wanted to work in the art field. This was due to the influence of my father, who was a painter. Therefore, I like drawing and sewing and enjoy them on my days off.

**How did you become a JICA volunteer for Bhutan?  
How long have you been a JICA volunteer in Bhutan?**

It all started when I visited a friend who volunteers in Cambodia. There, I saw children genuinely enjoying physical exercise. I strongly felt that sports can bring people together even if they do not speak the same language. Based on the experience and knowledge I gained as a teacher in Japan, I would like to work in



**Name: Ms. Haruko OHUCHI**

**Assignment: HPE Teacher**

**Assignment Agency: Katsho Lower Secondary School,  
MoESD, Haa**

other countries and make children around the world smile through exercise and sports.

While working as a teacher in Japan, I wanted to get out of the small world of teaching and experience a lot. I wanted to venture out into the unknown world, live in it, and become a strong person. I believe that my experiences and my growing up will have a positive impact on the children of Japan.

**Tell us of your current area or areas of operation as a volunteer/expert.**

I was sent to Bhutan as a volunteer in the field of Physical Education. I have been working as a physical education teacher at Katsho lower secondary school in Haa dzongkhag since September, 2022. My main activities are to conduct HPE classes and organize physical education events in the school. Physical education is not yet widespread in Bhutan, and not many teachers and students have a proper understanding of physical education. I want to provide children with a variety of physical activities and help them develop not only basic sports skills, but also cooperation, solidarity, and sportsmanship through physical education.

**Please tell us about your life experiences in Bhutan in terms of people and culture.**

I have the impression that the people of Bhutan are very kind. I am able to live in Bhutan without any inconvenience because my co-workers and neighbors care about my life. People in Bhutan treat each other

warmly as if they are family, and I feel that people are always helping each other. The spirit of respect for their own traditions, culture, and religion is wonderful. I also really like the Bhutanese culture of spending time leisurely. In Japan, I used to work in a rush from morning to night, but now I value the time I have to relax, enjoy the time to drink tea, and chat with people.

**Japanese are respected/reputed for their high regard for time, and diligence toward work. What is your opinion of the Bhutanese work culture (professionalism, time management etc.)?**

What surprised me when I started working in Bhutanese schools was the laxity to time. At first, I was confused by the lack of long-term planning and the fact that things do not always go according to plan. However, on the other hand, I feel that this is also a strength of the Bhutanese people. I think it is wonderful that Bhutanese are not restricted by formality and act in a flexible manner. I feel that this comes from the spirit of helping each other.

**As a citizen of a nation that is highly advanced what is your world view of Bhutan (a country that was isolated from the world till 1960 and only opened up for development from 1961)?**

When I arrived and lived in Bhutan, it was quite different from the isolated Bhutan I had imagined, to be honest. Many people use smartphones to communicate with the outside world and eat hamburgers and pizza. I feel that many people place a high value on money. Bhutan is developing and changing just like Japan, but the speed is many times faster. So, the society is very complicated, especially for children and young people, and I think it is difficult for them to judge what choices they should make and what actions they should take in their lives. I guess Bhutan will continue to develop more and more economically, but I hope that the spirit of taking pride in and cherishing one's own traditions and culture will not change.

We live for happiness, and we should always think about what makes us happy. I believe money is just a means to that end.



**Name: Mr. Naoki TAMAKI**  
**Assignment: Goal Keeper Coach**  
**Assignment Agency: Football Academy, Thimphu, Bhutan Football Federation, BOC**

**Please tell us about your early life, your education and professional life, your hobbies.**

I've played football since I was 8. I studied in USA and Australia. I used to be an English teacher in Japan. I came to Bhutan as a goalkeeper coach in BFF.

**What drives you to volunteer, to work across the world? Tell us of your experiences in the various places that you have done work as a volunteer?**

I was working as a goalkeeper coach for some years while I was a teacher. I just wanted to focus on being a football coach. I heard about the Japan Football Association (JFA) program as a goalkeeper coach in Bhutan. I wanted to work as a football goalkeeper coach in other country. I just want to improve Asian football level, so I applied for this job.

**How did you become a JICA volunteer for Bhutan? How long have you been a JICA volunteer in Bhutan?**





I applied for it from the Japan Football Association and I passed the interview. I've been here for one and a half year so far.

**What areas of development have you volunteered in during your time as a volunteer in Bhutan?**  
Bhutan football.

**Tell us of your current area or areas of operation as a volunteer/expert.**

I am a Football goalkeeper coach for Bhutan Football Federation Academy U14, 16, and 19.

**Please tell us about your life experiences in Bhutan in terms of people and culture.**

Bhutanese people are very kind and friendly especially in our BFF Academy. But they are not good at pushing themselves during training and making an effort for their dreams. But they are very interested in football and they are training and cooperating each other in the team.

**Japanese are respected/reputed for their high regard for time, and diligence toward work. What is your opinion of the Bhutanese work culture (professionalism, time management etc.)?**

I feel Bhutanese people are not punctual. They are unwilling to set the time and people don't want to come on time. They like to spend more time with their family compared with Japanese. Japanese people tend to work too much, and they spend a lot of time for work. It is not good for family. Bhutanese people like gathering with coworkers or friends because there are many occasions like, a party. I was shocked people throw trash everywhere on the road, even adults.

**As a citizen of a nation that is highly advanced what is your world view of Bhutan (a country that was isolated from the world till 1960 and only opened up for development from 1961)?**

I feel it's like time traveling to 50 years ago when I stay in Bhutan. But some points are developed like payment

system because you can pay through MBoB. But I think there is a big gap between the countryside and the city.

**What do you think of Bhutan's pursuit of GNH as a development philosophy as opposed to the rest of the world's hailing GDP as the progressive marker?**

First impression of Bhutan is the happiest country in the world. When I came to Bhutan, I was wondering why Bhutan is the happiest country. I think they always spend time with family, relatives and friends. I think it is because they have a strong bond for their people. But I don't know why many people tend to go to Australia even though here is the happiest country.

**What is your take on the GNH Surveys in Bhutan and effectiveness in helping the country achieve happiness for its people (in terms of prioritizing balanced socio-economic development, preserving environment, preserving culture; and ensuring good governance)?**

I feel being patriotic is important in Bhutan. People think about their culture, people and country. When people celebrate for events for their family, coworkers, or country, they always do their best to celebrate.

**Please add anything that you wish to add since the main objective is to feature the experience, life and times of Japanese volunteers who have lived, worked and helped make a difference for the country in various fields.**

I have had a good experience in Bhutan so far. I've been working for the development of football and I found the many differences between my country and here. Of course, the system and environment for football has to be changed to improve. But the biggest difference is the mentality of the players. You need to push yourself more to get better and should face and overcome some difficulties with some effort starting from their younger years. We need to do hard work for a long time and the good result will come in the future with patience. No pain! No gain!





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Royal Commission for Urban Development



## Raising Thimphu — The THIMPHU STRUCTURE PLAN

Thimphu is the boom town that developed itself into a sprawling terrestrial wonder. It is a mecca for progressive development that directs and steers the development trajectory of the nation. It is the land of opportunity for the many who continue to migrate rural-urban. The city of hundreds was easily the city of thousands. It has grown in size and number. And now it is a city of hundreds of thousands. The story of the capital city – Thimphu, is brief; in that manner of speaking. But if you peel the layered story, which it actually is, there are stories to be told from within the stories.

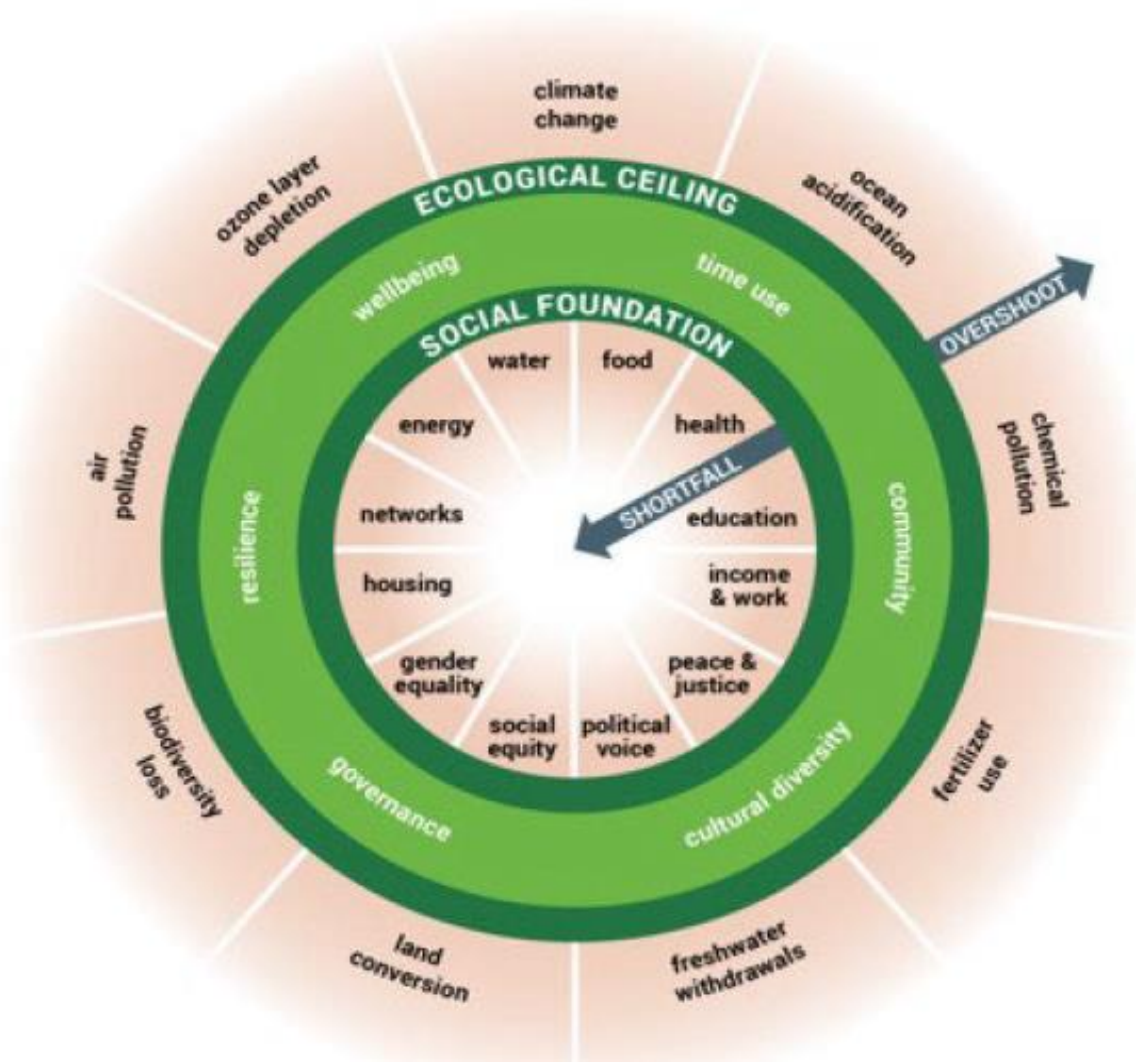
A peek through its layered intricacies shall reveal such things as how the town has transformed into a bustling abundance of buildings, roads, bridges, automobiles... and people. And a brief tour inside that city of plenty within its ever-growing networked maze of buildings, bridges, roads, and people and automobiles naturally sprouts a budding question inside the wondering mind — was there a plan to all this?

The straight answer is yes. The not-so straight answer is as zigzagged and meandering as the labyrinthine city itself which makes one weave through curves and corners, climb ridges and grooves. Thankfully, all that can be answered in three words — Thimphu Structure Plan.

The Thimphu Structure Plan (TSP) is the catch-all comprehensive planner that has everything laid out, planned and designed to implement and enforce on the ground. The ultimate goal or result of that is a city well-planned; one that tails the national aspirations to be met via the GNH philosophy; wherein there is a most sincere effort to treasure what is valued from ages of old while also sinking that progressive development teeth into what is futuristic and up with the times.

Let's take a stroll through the Thimphu Structure Plan 2023!





## GNH within the Doughnut & Thimphu Structure Plan

It's one thing to plan an outing or a picnic, it's another to plan the construction of a house, a complex of buildings, a network of roads inclusive of bridges and multiple infrastructure along the way. But it's definitely, really something else- to plan an entire city. It's no picnic, for certain – the task. But it's been done and this is how they (The Royal Commission of Urban Development) did it.

**Vision/Approach:** The Thimphu Structure Plan 2023 adopts the principles of Doughnut Economics, which establishes social and planetary boundaries and realises outcomes in which people and planet can thrive in balance – in other words it offers a compass for guiding 21st century prosperity. There are two key principles through which TSP puts Doughnut Economics into practice: • Be distributive. Share opportunity and value with all who co-create it. • Be regenerative. Aim to work with and within the cycles of the living world.

Doughnut Economics aims to transform the future by transforming the dynamics of economics and human

activities. For this attribute, two of transformational dynamics was instrumental for the TSP 2023, that is, the push to go “From a degenerative to a regenerative economy” and transform “From a divisive to a distributive economy.”

These principles underpin the TSP vision and key planning policies and spatial framework.

**Cultivate Balance:** Balance between tradition and modernity, rural and urban and the natural environment, heritage and prosperity.

**Nurture Community:** Neighbourhoods that are diverse, equitable and friendly and support health and wellbeing at all life phases.

**Create Opportunity:** foster prosperity, support livelihoods and be governed with wisdom and compassion.

**Inspire:** Enrich spirituality and culture and function as a model for sustainable development.



## ..... is Doughnut Economics?

If the 21st century goal is to meet the needs of all people within the means of the living planet – in other words, get into the Doughnut – then how can humanity get there? Not with last century's economic thinking.

Doughnut Economics proposes an economic mindset that's fit for our times. It's not a set of policies and institutions, but rather a way of thinking to bring about the regenerative and distributive dynamics that this century calls for. Drawing on insights from diverse schools of economic thought – including ecological, feminist, institutional, behavioural and complexity economics – it sets out seven ways to think like a 21st century economist in order to transform economies, local to global.

The starting point of Doughnut Economics is to change the goal from endless GDP growth to thriving in the Doughnut. At the same time, see the big picture by recognising that the economy is embedded within, and dependent upon, society and the living world. Doughnut Economics recognises that human behaviour can be nurtured to be cooperative and caring, just as it can be competitive and individualistic.

It also recognises that economies, societies, and the rest of the living world, are complex, interdependent systems that are best understood through the lens of systems thinking. And it calls for turning today's degenerative economies into regenerative ones, and divisive economies into far more distributive ones. Lastly, Doughnut Economics recognises that growth may be a healthy phase of life, but nothing grows forever: things that succeed do so by growing until it is time to grow up and thrive instead.

(Source: [doughnuteconomics.org](https://doughnuteconomics.org))



## Key Ideas of the Thimphu Structure Plan

Thimphu Structure Plan 2023-2047 proposes three new key ideas as an evolution of Thimphu Structure Plan 2004 precincts designation — Land Use; Centres Hierarchy; and Character Areas.

**Land Use:** Land Uses serve as a tool to promote good growth in the right places. They support the following aims:

- Support the regeneration of existing urbanised areas and limit further land conversion
- Distribute activity centres across the city
- Distribute a variety of residential types appropriate to their location
- Locate work places in accessible areas
- Relocate major industrial uses away from sensitive land uses
- Distribute public open spaces across the city
- Restrict land use types in line with geohazard rating zoning permissible uses

**Centres Hierarchy:** A hierarchy of centres is the primary way to distribute economic growth, housing, population growth. It ensures facilities and employment opportunities are equitably distributed and dimensioned proportionate with a hierarchy of population catchments. Centres are activity nodes concentrating employment, social infrastructure, commercial, retail, and leisure facilities.

- City centre** serves over 150,000 people and anchors the National Capital City area. It is a highly specialised area for employment opportunities in the knowledge

sector focused on environmental and financial services linked to climate change and carbon markets. It is also a national centre for government, professional services (finance and insurance), technology and IT. It promotes high end tourism and strengthens Thimphu's tourism, retail, culture and leisure offer.

- **Sub-district centres** serve up to 50,000 people
  - Specialised mixed use areas for employment opportunities in the services sectors
  - Convenience services for weekly/fortnightly needs of residents and community facilities

- **Neighbourhood centres** serve 5-15,000 people
  - They provide facilities needed regularly for urban communities

- **Local centres** serve 2-5,000 people
  - Daily services in urban areas

- **Rural local centres** serve up to 2,000 people in rural areas
  - Facilities needed regularly for villages

**Character Areas:** Character areas support the creation of identity and a sense of place.

- Development within one character area shares similar rules and guidelines for built form, streets and public realm, heritage and conservation and environmental landscape guidance.
- The character areas form the structuring basis for Urban Design Guidelines.



## Highlight features of the TSP

**Natural Landscape Protection:** The TSP is crafted to protect and celebrate the natural habitat. Despite its richness, Thimphu's biodiversity has undergone significant degradation due to rapid expansion of the City. The TSP seeks to protect the city's key ecological landscapes.

The Plan aims to preserve existing natural landscapes, habitats, places, and assets of ecological and natural heritage and value, as well as agriculture wetlands. This relates primarily to riparian zones (the areas between land and water), pockets of pristine natural forest and areas at risk from natural hazards.

It seeks to protect people from hazard and climate risks, celebrate Bhutanese culture and identity, support livelihoods, health, and wellbeing; provide



If you throw caution to the wind, the fated consequences will come to pass; the situation being a question of 'when it will happen' and not 'if it will happen.' For instance, if you build on marshy land, the countdown has begun for you and your house to meet a fated end. The TSP operates in that sage tune on a grand scale to remedy and reform. It is presented with a chaotic host of discrepancies to sort out, iron out, wash, rinse, fluff and dry. At times they are as simple as aligning interlocking tiles out of line. And at times, as complex as addressing cross-cutting issues generated by climate change while also prioritizing developmental gains that indeed counters activities that mitigate climate change (impacts).



access to nature and educational opportunities for communities; and preserve existing valuable habitats and biodiversity.

**Cultural Heritage:** The TSP is formatted to instill pride in people to protect local heritage. The plan aims to protect and enhance heritage features that contribute to local culture and character, including historic and religious sites, cultural landscapes, and traditional vernacular architecture. It seeks to improve the practice of intangible cultural heritage through enhancing routes and trails, delivering a cultural quarter at the city centre and protecting and upgrading open spaces around heritage site to create a place where people can feel safe and proud.

The cultural landscapes designation seeks to protect landscapes that have been shaped through interaction between people and the natural environment and now have historic, cultural and environmental value.

**Water utilities:** The TSP's water strategy aims to provide an equitable, reliable and resilient network of infrastructure within the city for water supply, waste water, and storm water systems. The main improvement projects identified in the Plan seek to provide a 24/7 water supply to all properties; reduce water losses; achieve water quality standards; and provide fire fighting demand. For waste water and storm water, the objectives include connecting all waste water to the sewer network, achieving water quality standards at treatment plants, reducing storm water runoff, and enhancing storm water quality.

The Plan aims to enhance the water demand management to be resilient to future shocks and stresses, reduce the quantity of water required, provide adequate water supply and waste water drainage for all properties, and improve water quality for the well-being, amenity and biodiversity of Thimphu. It aims to improve the water and waste water networks to increase system capacity and efficiency, and promote public safety.

**Housing:** Given that housing costs place a great strain on Thimphu's residents, the Plan proposed interventions include 'Definition and delivery of affordable housing' to create a more equitable and inclusive housing market, particularly for the most vulnerable groups, including those on lower incomes and young among others. It also includes 'Definition of the form of affordable housing' which should correspond with local need, acknowledging that affordable rental housing should not cost more than 30% of gross monthly income. The Plan aims to address the housing gap through the following components:

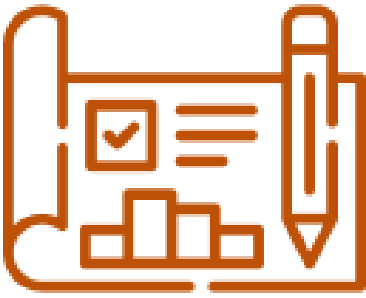
- Housing distribution - housing growth will be accommodated across Thimphu, largely delivered through regeneration and in filling existing areas;
- Housing quality – establishing standards for housing quality, this includes the Development Control Regulations and more provision for outdoor spaces and the building of community;
- Affordable housing – exploring different mechanisms and standards for delivering affordable housing.

**Green spaces and corridors:** The Plan comprises a variety of green open spaces and corridors that link to core objectives of protecting the natural environment and protecting people, providing new and enhanced public spaces, and connecting communities and nature.

A well-connected, inclusive and beautiful network of multifunctional green infrastructure can restore harmony between people and nature, celebrate traditional Bhutanese identity, support sustainable economic growth and deliver resilient benefits for the City. This green network aims to control urban sprawl, increase flood resilience, improve air quality, reduce urban heat, and improve access to natural open space. It can also support other critical infrastructures, such as storm water drainage and transport networks, and deliver economic, social, and environmental benefits to Thimphu and its communities.

The TSP aims to ensure that new and enhanced green open spaces support the health and wellbeing of Thimphu's communities. It aims to permeate green streets and corridors into the urban environment to deliver high quality and accessible green infrastructure, manage the pressures of continued urban growth, and achieve sustainable and resilient urban development.

**Mobility:** Thimphu's sustainable transport proposal aims to connect people and places; enhance the city's economy and attractiveness to the benefit of residents, visitors, and businesses; and help to mitigate the impact of climate change. To this end the plan includes a transport network that provides access to spaces and opportunities, and ensures efficient good delivery; interventions that promote the use of public transport and active mobility (walking and biking), and that enhance road safety and reduce the need to own and drive a car. This will contribute to create healthy and vibrant communities, economic growth, and low emissions.



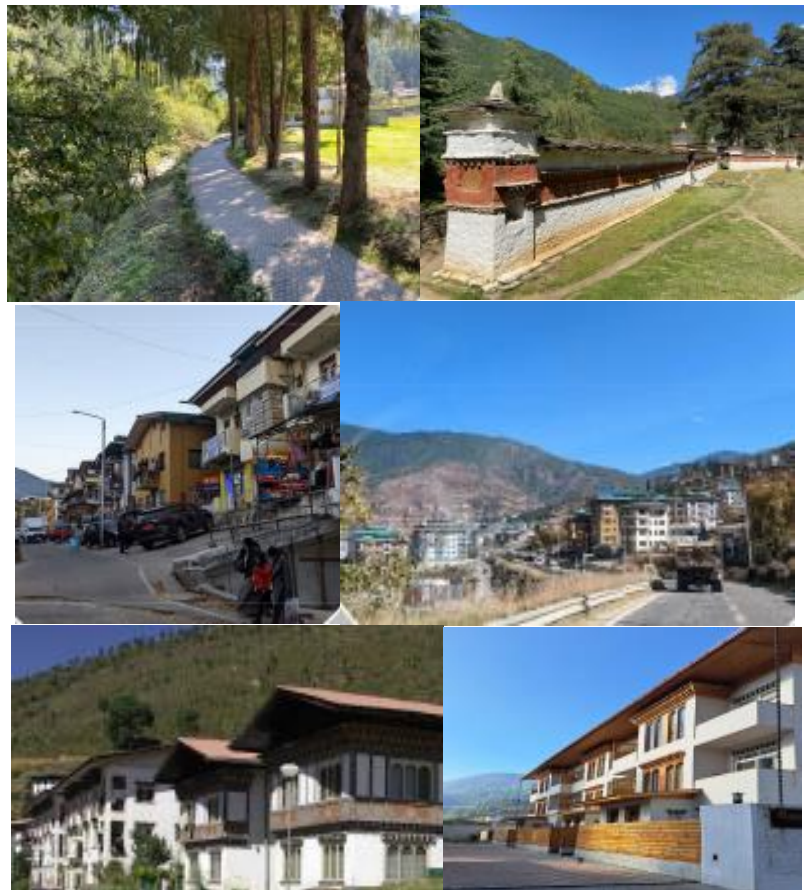
## The goodness of plan

They say the best laid plans often go awry. Well, turn that around, and say at least a best laid plan in hand crafted by factoring every possible dynamics into operation keeps all efforts, on a path that is unwaveringly straight and narrow, headed only toward one fixed point — the desired destination.

The Thimphu Structure Plan is of course more than just a best laid plan. It is a national aspiration charting a path after careful consideration of a nation's immovable will to stay the course that values what is age-old and valuable; helps it adopt what is cutting-edge but at the same time allows it to sustain its proprietary blend of cultural preservation harmonized by balanced socio-economic development. In its enforcement is testament what a nation truly values, how it honors its commitment to the world community (environmental preservation, low emissions etc.) while it renders the most genuine care and concern to its individual citizens.

All is seen... and heard as the plan speaks in action, with action – louder than any word – put out there to introduce it. After all; 'Seeing' really is believing. And 'showing them' is always far more effective than 'telling them.'

The Thimphu Structure Plan is modelled on a template that is as pre-emptive of possibilities as it is rooted in prevailing status-quo. It is ambitiously visionary for future growth and yet grounded with a firm grasp that doesn't let loose the values on which the nation is built; the virtues that have been carried over and across centuries through changing times. In saying that – it is a planned strategy that moves ten paces forward but pauses at least for two of them to avoid needless do-overs when every strategy has been implemented/enforced; and the ground is set to be inaugurated as the new and improved post-makeover marvel.





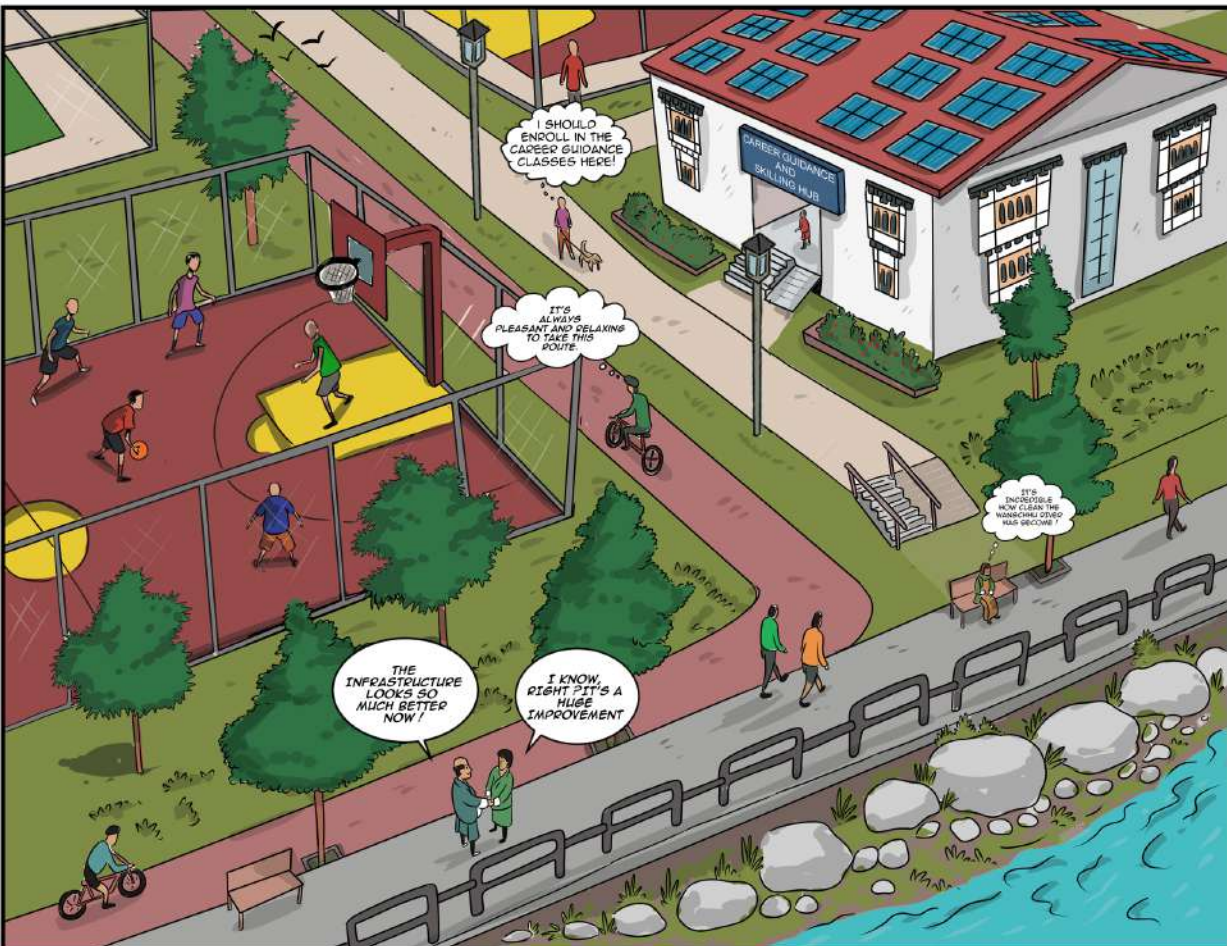
## YEAR 2023

NIMA IS AN 18 YEAR OLD HIGH SCHOOL GRADUATE, WHO LIVES WITH HIS SISTER AND HER FRIENDS. HE LOVES TO ENGAGE WITH FRIENDS THROUGH SPORTS, BUT CAN'T AFFORD TO PLAY DAILY. HE IS WORRIED AND LOST ABOUT HIS CAREER AND FURTHER EDUCATION.



## YEAR 2047

NIMA IS 42 YEARS OLD. HE WORKS AS A FREELANCE CYBER SECURITY CONSULTANT. HE RIDES A BICYCLE OR WALKS TO TRAVEL AROUND. HE JOINS HIS FRIENDS AFTER OFFICE FOR A GAME OF FUTSAL WHILE ON HIS WAY HOME.





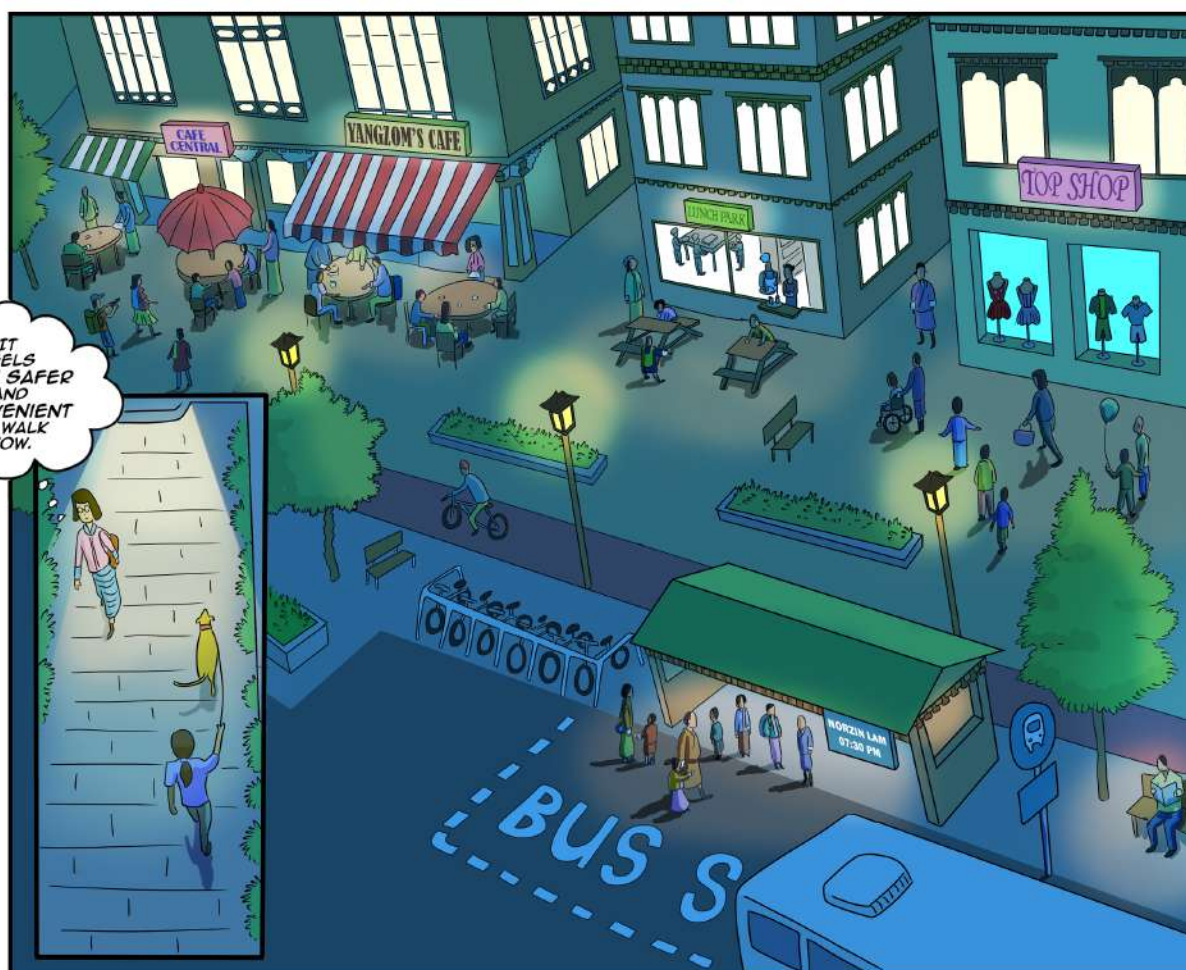
## YEAR 2023

**YANGZOM** IS A 22 YEAR OLD COLLEGE GRADUATE FROM GEDU. SHE LIVES WITH HER FRIENDS IN A SHARED APARTMENT. CURRENTLY SHE IS ENROLLED IN A CULINARY COURSE THROUGH THE DESSUNG SKILLING PROGRAMME.



## YEAR 2047

**YANGZOM** IS NOW 46 YEARS OLD AND SHE RUNS A SUCCESSFUL CAFÉ AT **NORZIN LAM**. SHE OWNS AN APARTMENT NEAR **DOEBUM LAM** WHICH SHE ACQUIRED THROUGH **NHDCL AFFORDABLE HOUSING SCHEME**.





## YEAR 2023

YESHAY IS A 32 YEAR OLD GOVERNMENT EMPLOYEE WITH A PASSION FOR READING. HE AND HIS WIFE RESIDE IN A 2 BEDROOM APARTMENT IN CHANGANGKHA AND COMMUTE TO THE OFFICE BY CAR. THEY WANT TO START A FAMILY AND ARE ALSO PLANNING TO BRING HIS AGING FATHER FROM THE VILLAGE TO LIVE WITH THEM IN THIMPHU.



## YEAR 2047

YESHAY IS NOW A FATHER OF 2. HIS ELDEST SON STUDIES IN A COLLEGE IN THIMPHU AND HIS DAUGHTER ATTENDS HIGH SCHOOL. HE MANAGED TO BUY A 3BHK FOR HIS FAMILY IN A GREEN AND PEACEFUL NEIGHBORHOOD THROUGH THE **NPPFL PENSION HOUSING SCHEME**.



HE NOW USES A BICYCLE TO COMMUTE TO OFFICE AND IS FIT AND HEALTHY FOR HIS AGE. HE ALSO OCCASIONALLY VISITS THE **PUBLIC LIBRARY** IN THE **CULTURAL QUARTER** IN HIS FREE TIMES.



## YEAR 2023

PELDEN IS A 32 YEAR OLD MOTHER WITH 2 CHILDREN. SHE IS A HOUSEWIFE AND HER HUSBAND WORKS AS A DRIVER AT A CORPORATE OFFICE. THEY LIVE IN A 1 BEDROOM APARTMENT IN THE GOVERNMENT HOUSING COLONY. SHE IS INTERESTED IN GARDENING. SHE IS CONSTANTLY GRAPPLING WITH WASTE AND WATER ISSUES AND WORRIED ABOUT THE SAFETY OF HER CHILDREN.



## YEAR 2047

PELDEN AND HER FAMILY LIVE IN A 2-BHK AFFORDABLE RENTAL HOUSING. SHE AND A FEW OTHER RESIDENTS NOW GROW THEIR OWN VEGETABLES AND FRUITS IN THE **COMMUNITY GARDEN**. AND SOMETIMES SHE SELLS THE SURPLUS TO EARN EXTRA INCOME.





## YEAR 2023

SONAM IS A 60 YEAR OLD CIVIL SERVANT. HE IS ABOUT TO RETIRE FROM HIS OFFICIAL DUTY AND WORRIED ABOUT HIS FUTURE PROSPECTS. HE AND HIS WIFE LIVE ON THE FOURTH FLOOR OF A RESIDENTIAL BUILDING. HE IS ALSO DIAGNOSED AS PRE-DIABETIC PATIENT AND NEED TO VISIT THE DOWNRH FOR CHECKUP OFTEN.



## YEAR 2047

SONAM IS NOW AN 84 YEAR OLD RETIREE. HE AND HIS WIFE HAVE BOUGHT A FLAT WITH THEIR SAVINGS AND CHILDREN'S SUPPORT. HE VISITS THE NEIGHBOURHOOD **HEALTH CLINIC** IN THE LOCALITY FOR HIS WEEKLY APPOINTMENT AND SPENDS TIME WITH HIS FRIENDS AND FAMILY IN THE PARK NEARBY.





## YEAR 2023

**KUENZANG** IS A 58 YEAR OLD LADY WHO RUNS A RETAIL SHOP. HER TWO CHILDREN ARE ABROAD AND HER HUSBAND IS A CIVIL SERVANT. ALTHOUGH SHE DESIRES TO ENGAGE IN RELIGIOUS PRACTICES AT HER CURRENT STAGE IN LIFE, SHE IS COMPELLED TO OPERATE A RETAIL STORE IN ORDER TO MAKE ENDS MEET.



HOWEVER, SHE SPARES TIME FROM HER DAILY LIFE TO WALK AND VISIT RELIGIOUS MONUMENT AROUND THIMPHU.

## YEAR 2047

**KUENZANG** IS NOW 82 YEARS OLD. AND LIVES WITH HER HUSBAND, THEIR ELDEST DAUGHTER AND GRANDCHILDREN. DESPITE HER AGE, SHE IS ABLE TO ATTEND RELIGIOUS SERMONS AND VISIT LHAKHANGS WITHOUT MUCH DIFFICULTY.



SHE TAKES PART IN SOCIAL ACTIVITIES THAT ARE FREQUENTLY HELD AT **COMMUNITY CENTER** AND SOCIALIZES WITH OTHER MEMBERS OF HER LOCALITY .



# ALL ABOARD THE ePIS



## By the power of ICT, I am ePIS

A telephone, a camera, a music player, a radio, and video games; a voice recorder, maps, compass, calendar, books, note pads, pen, pencil and paper; a calculator, watches and clocks, a computer, movie players, TV and Remote Controls; magazines, newspapers, Yoga instructors, Self-help gurus, Subject Matter Experts on various topics, oh! And a torch.

Few decades ago, if you told a person to carry all that every day, everywhere they went, then not only would that be the most absurd thing to say — your mental stability will be in question and up for scrutiny. Today, we are, without even asking or realizing; carrying the laundry list of items above-mentioned (and more...) with us on our person, every waking and sleeping hour. The arrival of the smartphone has really signalled the phenomenal times that we live in. And the good stuff doesn't end there as the magic of advanced technology and tech-powered wonders further sweetens the pot. It has allowed humankind to do things, accomplish things, with the ease of not breaking a sweat on the brows but deliver results that



Works on the ePIS started in 2016. It was piloted in Paro in 2017. Supported by the ADB it was officially launched on 14 April, 2023 following a year-long trial in Thimphu

carrying prescriptions old and new — some of whom after long and extended duration bear worn-out writings that are not even clear enough for the human eye to read, and understand. The fabled ‘Doctor’s handwriting’ is obviously not helping at all in this.

And because there are more things in ePIS and its ICT-enabled workings, than can be explained in a single sentence. Let’s delve into it!

## All about the ePIS

The e-PIS is a system that maintains/stores details of patients electronically. It is one of the main components of Digital Drukyl Program. The ePIS is part of the MoH’s vision to move away from paper-based medical records and enhance the use of ICT. Supported by the Asian Development Bank with a US\$ 4 Million grant, ePIS was officially launched on 14 April, 2023. The system is being currently used at JDWNRH in Thimphu, National Traditional Medicine Hospital in Thimphu and at Eastern Regional Referral Hospital at Mongar.

## Digital Drukyl

Digital Drukyl Program is the IT Flagship Project of 12<sup>th</sup> Five Year Plan of Royal Government of Bhutan. The Digital Drukyl Flagship Program is a deliberate and calculated effort to realize an inclusive and smart society through the use of ICT. Using a Whole-of-Government approach, the program is designed to leverage on the existing opportunities consolidating ICT investments and emerging technological trends. The ePIS and the National Digital Identity (NDI) are two among its main components besides other flagship project on connectivity, finance and education etc.

## How the ePIS works

The ePIS maintains patient details electronically online. With that in place, patients visiting health facilities no longer have to keep paper prescriptions and health books.

**The Patients:** To access healthcare through the ePIS, patients have to present proof of identity, such as a Citizenship Identity Card or voter card or a work permit. The doctor then enters the identity card number into the system. If it is the patient’s first visit since the system’s implementation, the doctor asks for the patient’s medical history and records it in the system. This ensures that the next time a doctor enters the identity card number, all medical records will be available.



**Patients have to present proof of identity with a Citizenship Identity Card, Voter Card, Passport, or Work Permits to access health care through the ePIS**

under different circumstances (or in a different age) would use up huge amount of time and manpower, require a massive stock of resources and an unimaginable amount of money. This is the new world order. And it is the reality of our times.

So then; would it be out of place in this age of tech-powered wonders, if hospital-visiting people are still carrying a stack of medical prescriptions, and files and files of personal health check-up records and supplementing documents? Yes, yes, and yes! As we have announced it to be above; it’s the age of information and the knowledge worker, the age of convenience (not inconvenience).

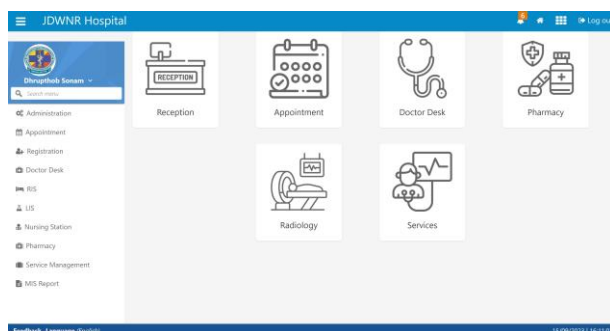
Point of all the ruckus, is that we are going to talk about the ePIS or Electronic Patient Information System. And hence the need to show and tell, compare and contrast. After all, without demonstrating how inconvenience was at work, it cannot be efficiently and effectively shown how convenience has made life easier, so much easier.

The ePIS simply put, is an online digital/electronic storage for everyone’s health records. Therefore, the ePIS as a ‘Patient Information System’ has got you covered. So first off, kiss goodbye those stack of files,





The immediate benefit of ePIS is the elimination of the need for patients to carry multiple prescriptions and files of health records maintained for years



*Process for patients*

**The Hospitals:** The exchange of patient data between hospitals facilitates improved healthcare monitoring and provision by both allopathic and traditional medicine practitioners through cross-referrals. Traditional medicine Drungtshos and Menpas are being trained, and the system will be rolled out in those areas. Patient data from both hospitals can be exchanged to monitor and provide better healthcare. This enhances patient safety and contributes to the formulation of better policies in the health sector. The online storage of data simplifies the referral process.

There are 23 general/district hospitals in the country. The bed strength varies from 20 to 60 beds. 10 hospitals at the strategic locations are identified as level III-Emergency Medical and Trauma Centers (Samtse, Phuntsholing, Wangdue, Trongsa, Trashigang, Dewathang, Yebilabtsa, Tsirang, Gedu, and Riserboo). These hospitals also receive referrals from Primary Healthcare Centres and other district hospitals.

There is only one National Traditional Medicine Hospital in the country with 20 beds. It is likely to be increased to 80 units in the next few years. The hospital also receives patients from both allopathic and TM units from district hospitals. There are 79 Traditional Medicine Units set up in most of the hospitals across the country.

**The Call centers:** The data of all the patients visiting hospital is recorded in ePIS and includes revisiting patients. More than 50% of health professionals in the hospital shall use the system. To that end, the project plans to set up two kinds of call centers – one for users and one for the public.

## Most striking features of the ePIS

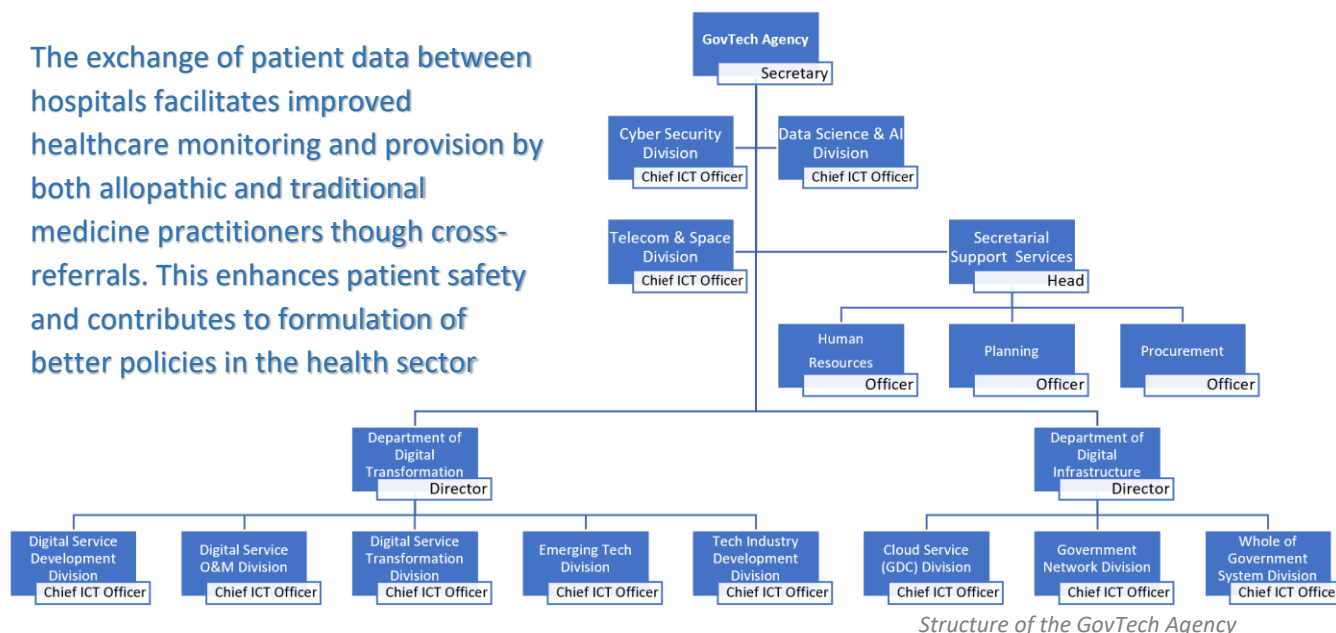
- Interoperability: Ensuring seamless communication between machines and different healthcare systems.
- Standards Compliance: Adhering to industry standards to ensure compatibility and data consistency.
- Integrated Equipment: Coordinating various medical equipment and devices.
- Centralized Deployment: Enhancing data management and accessibility through centralized architecture.
- Capacity Building: Preparing healthcare professionals and stakeholders for the transition.
- Data Privacy: Ensuring the highest level of data security and privacy.
- Efficiency: Streamlining healthcare processes for improved efficiency.
- Mobile Accessibility: Allowing access to healthcare information from mobile devices.
- Dedicated Apps: Providing specialized applications for both Health Professionals and Patients.

## ePIS at Status Quo – hot and current

The integration of the machine with ePIS and the replacement of old LIS to launch the system for OPD services is a milestone achievement in contrast to past projects. User training is provided to all who are identified to use the system in the hospitals. Additionally, help and guidance are provided to users while they adjust to change. Ongoing efforts are focused on further integration within the healthcare system. Implementation has been completed at several key healthcare facilities, including JDWNRH, Mongar Regional Referral Hospital (MRRH), and National Traditional Medicine Hospital (NTMH).

The total number of patients registered in the ePIS at their respective Health Facilities are as follows. At the JDWNRH as of 04 October, 2023 to 06 October, 2023 it is 66,896. At the MRRH as of 26 August, 2023 to 06 October, 2023 it is 11,291. At the NTMH as of 06 September, 2023 to 06 October, 2023 it is 2,487.

The exchange of patient data between hospitals facilitates improved healthcare monitoring and provision by both allopathic and traditional medicine practitioners through cross-referrals. This enhances patient safety and contributes to formulation of better policies in the health sector



The ePIS project has successfully rolled out its Outpatient Department (OPD) services which includes following modules:

- Registration used by receptionist
- Appointment used by receptionist
- Triage used by nurses at OPD.
- Doctors Dashboard used by doctors
- Radiology Information System used by radiology receptionist
- PACS used by radiologist and radio technicians for recording radiology images
- Lab Information System used by doctors, officers and technicians in the lab
- Services used by nurses
- Pharmacy used by pharmacist



*ePIS discussion at Lungtenphu Army Hospital in Thimphu*

## Planned outcome for the patient system:

The primary objectives of the ePIS project are as follows:

- One Electronic Health Record: To establish a unified electronic health record accessible from any point of contact within the healthcare system.
- Improved Health Outcomes: To enhance healthcare decision-making and promote continuity of care, ultimately leading to better health outcomes.
- Evidence-Based Information: To generate evidence-based data for medical research, interventions, and decision-making, thus improving access to quality data.
- Cost-Effective and Quality Healthcare: To optimize the cost-effectiveness and quality of healthcare services by reducing medical errors, eliminating duplication of inpatient care efforts, and enhancing overall patient safety.

### The agency that be — the Government Technology Agency

The newly formed Government Technology (GovTech) Agency, formerly known as Department of IT is spearheading the country's efforts to harness technology for government operations, service delivery, and digital transformation. Their primary role is to promote the effective use of technology within the government to improve public services and administrative processes. The GovTech Agency is mandated to spearhead the flagship IT project as the technical body. Once the system is successfully rolled out across the country, the system will be handed over to new established National Medical Services which oversees all the hospitals and Primary Healthcare Centers in Bhutan.



## ePIS and the near future

In the beginning... there was no ePIS. Now, ePIS has arrived. But the ePIS is not just going to 'be there' because it is a most potent ICT-powered tool with huge room to evolve with the times. The ePIS will evolve further, with enhanced services in the coming years.

The system in plain speak; is something capable of addressing an issue as commonplace as 'patient tokens.' At the same time, it reserves the sophistication to bring about sweeping change in the vastness of the overall health system and by proxy- also in the nation's being.

The roadmap for the ePIS project includes many key milestones. A few of them among the many are:

- Rolling out other critical modules, such as In-Patient Department, Community Health Department, Emergency Department, Referral, Forensic, and others.
- Development of patient portal and apps are next
- Extending integration with other relevant systems, including the National Digital Identity (NDI), banking applications, Bhutan Vaccine System, DHIS2, Gyalsung System... and more.

## A healthy journey and the birth of ePIS — the back story

With ePIS in its folds, Bhutan's healthcare system has embarked on a remarkable journey of transformation, leveraging the power of Information and Communication Technology (ICT) to enhance healthcare access, quality, and efficiency. The all-convenient ePIS is 'the convergence of Bhutan's healthcare landscape with the digital age' in action. Its effectiveness made further efficient encompassing infrastructure and policy.

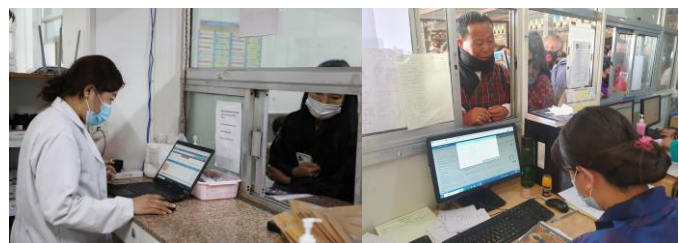
In 2019, Bhutan's healthcare landscape served a population of approximately 727,143 people across 20 districts. It boasted 46 hospitals, including three regional referral hospitals and a national referral hospital. Complementing this infrastructure were Primary Health Care Centers, a dedicated workforce of over 5,000 health professionals, and a reliance on more than 20 IT systems to manage healthcare services. The



The data of all the patients is recorded in ePIS and includes revisiting patients. More than 50% of health professionals would use the system. To that end the Project has plans to set up two kinds of call centers – one for users and one for the public



*Doctors using ePIS*



*ePIS in use at the NTMH*



*TTPL and MoH signing contract*



*One of many consultations between TTPL and Doctors*

healthcare system conducted 24,687 surgeries, 1,016,477 laboratory tests, and provided 219,554 radiology department services during the year.

Bhutan's commitment to healthcare accessibility is deeply embedded in its constitution, particularly in Section 21 and 22 under Article 9. These sections ensure free access to basic public health services, including traditional medicines, and guarantee security in cases of sickness, disability, or lack of adequate livelihood. Aligning with global health priorities, the World Health Assembly (WHA) underscored the importance of digital technologies in healthcare, emphasizing their role in advancing Universal Health Coverage and the Sustainable Development Goals.

To harness the potential of ICT in healthcare, Bhutan established the ICT Division within the Ministry of Health (MoH) in 2016. In 2017, the Emergency Medical Service Division of MoH's Department of Medical Service handed over the ePIS Project to the ICT Division. The eHealth Strategy, developed in 2018 in collaboration with the Asian Development Bank (ADB) and the World Health Organization (WHO), laid the foundation for Bhutan's digital healthcare transformation.

Key existing e-health solutions include DHIS2, Disease Surveillance System, Laboratory Information System (LIS), Picture Archiving and Communication System (PACS), Health Help Center (HHC) system, Telemedicine solutions, Blood Transfusion System, DocApp (Mobile App), and Inpatient Department (IPD) Reporting System. Despite these advances, challenges remained, including paper-based approaches, limited patient data platforms, and suboptimal treatment outcomes. In response, Bhutan initiated the ePIS project, which aims to provide improved data access, generate evidence-based information for healthcare decisions, and contribute to the goal of Universal Health Coverage (UHC).

The ePIS project is a pivotal component of Bhutan's 12th Five Year Plan's Digital Drukyl Flagship Project, jointly implemented by the then Ministry of Information and Communications (MoIC) and MoH, supported primarily by the Asian Development Bank, with co-funding from the Royal Government of Bhutan. The project emerged following the Government's Cabinet directive in January 2020, leading to its award to Druk Holding and Investments (DHI), and its subsequent outsourcing to Thimphu Tech Park Limited (TTPL).

With ePIS, Bhutan's healthcare system has embarked on a remarkable journey of transformation, leveraging the power of information and Communications Technology to enhance healthcare access, quality, and efficiency.



*The ePIS was developed by the Thimphu TechPark*



*ePIS System demonstration by developer*



*The GovTech Agency spearheads the ePIS as the technical body*

Bhutan's digital healthcare revolution, driven by the ePIS project and guided by constitutional principles, reflects a commitment to providing accessible, high-quality healthcare services to its citizens, while preserving its traditional healing heritage. This transformative journey promises a brighter, more equitable future for healthcare in Bhutan.

**References:** 'Electronic Patient Information SYSTEM Brief Background Prepared by ePIS Team 2023'; Kuenselonline; BBS





འབྲུག་བརྒྱུད་འཕྲིན་ཚོང་ཁུངས།

BHUTAN TELECOM LIMITED



## THE BHUTAN TELECOM LIMITED — REST IS ALL HISTORY

A weary Changyul Bum Galem with her fading breath sings a message for Gasa Lamey Singye to a passerby across the river. With quite the urgency, the message does indeed get delivered. The fate of the fabled legends thereafter is a story to be told for another time. Garp Lungi Khorlo is the iconic mail man, said to run, walk, and travel with unbelievable speed and stamina getting message delivered back and forth from one region to another within a day – quite the feat considering the many mountains and valleys he had to cross.

Those are snippets from tales back in the day; accounts for effective communication. Times have evolved – and

so have the ways and means to do things – like how we communicate.

The country has witnessed and moved on from one mode of communication to another; each one more efficient and effective than its predecessor, continuously mile-marking the transcendence of an era, a century, a generation. Bhutan has moved with the times, kept pace with the world in embracing and using the latest in tech to build its communications technology and establish its place among the world nations. The introduction of TV and the internet in 1999 and then the inception of mobile technology in 2000 was the shot in the arm that sent the nation's

brand of communication whizzing across space and time now culminating in showcasing a locally- and internationally networked reach, access and effect.

The Bhutan Telecom Limited (BTL) is the Start point. Its origin, its striking trajectory of evolution is emblematic of Bhutan's developmental journey — It stirs emotions and jogs memories of stories etched in time. Today, the BTL is at the center of telecommunications and mobile communications as far as Bhutan is concerned.

Let's take a stroll, through BTL.

## BTL – IT SERVES

**Convenience:** BTL presents to you the convenience of having a SIM card but the advantage of not needing to have and hold on to it. Confused much? No need for that. We're talking about the eSIM feature offered to BTL customers. Activate an eSIM for your SIM-less future with BT's eSIM service. The registration process and the price of eSIM are the same as the physical SIM. An eSIM (embedded-SIM) is a form of programmable SIM card that is embedded directly into a device. Instead of an integrated circuit located on a removable universal integrated circuit card (UICC), typically made of PVC, an eSIM consists of software installed onto an eUICC chip permanently attached to a device. Once an

eSIM carrier profile has been installed on an eUICC, it operates the same as a physical SIM, complete with a unique ICCID and network authentication key generated by the carrier.

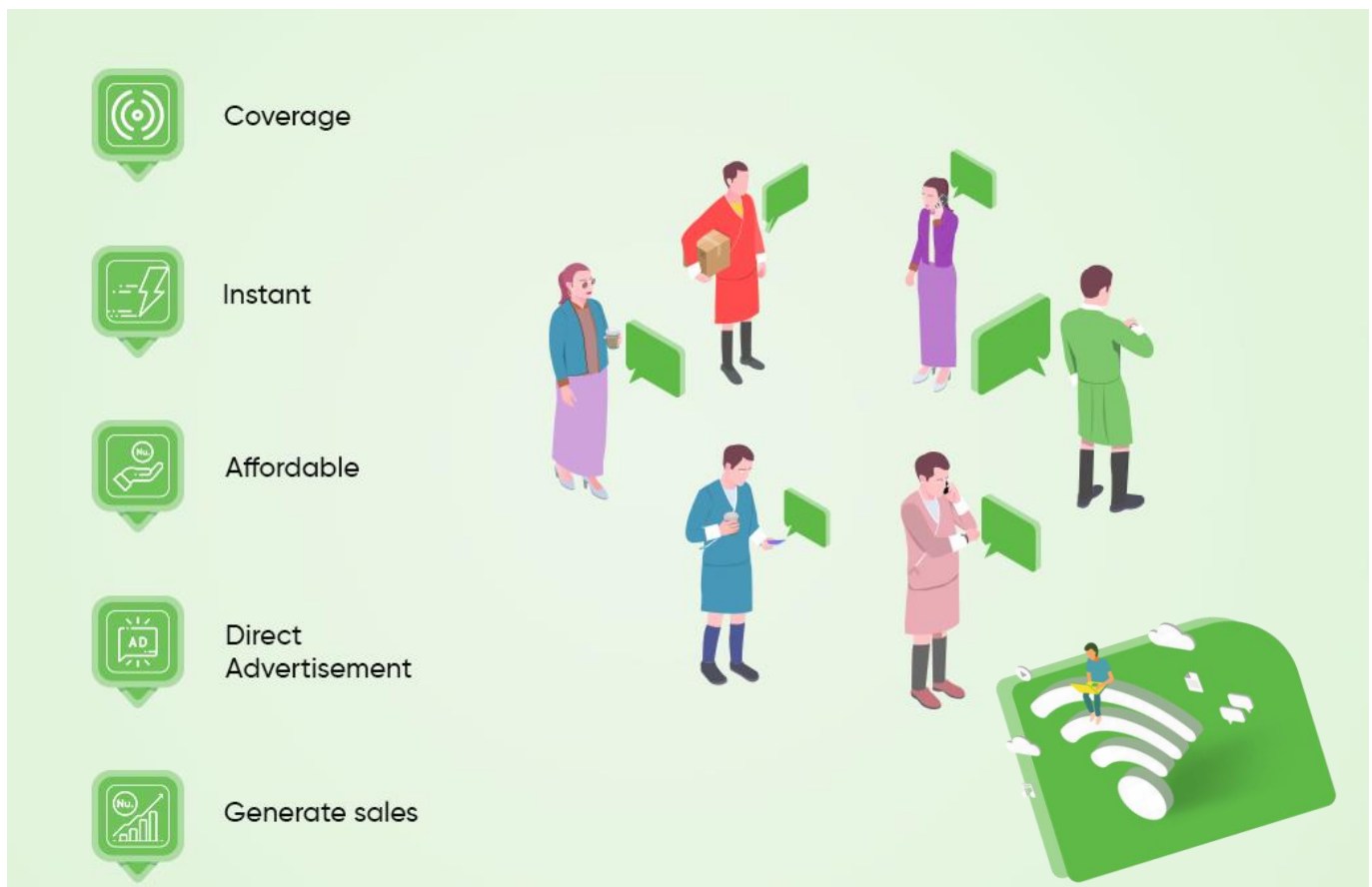
While we're on the topic – You do not have to go to the Telecom to change your SIM details. You may easily do it from your phone using the KYC feature in My BT App.

**Be where you are, Reach everyone:** Omnipresent is a word hard to attach to your personality. BTL however gives you that opportunity with its **Bulk SMS Service**. And it just so happens to have been made an affordable and reliable way to do it. Bulk SMS messaging is an application-to-person SMS messaging services. It refers specifically to the sending of large number of SMS messages to the mobile phones of a predetermined group of recipients – a town, a community, a village, nationwide.

**Do everything:** The inevitability of demands, to be able to do everything within the shortest time, with abundant convenience with guaranteed success is only natural. It's the high-tech world and we are party to it all. The availability of internet access is instrumental in this.







**Internet leased line:** An organization can share internet leased line connection within its computer network (LAN), so all computers can connect to the internet – to provide cheaper communication facilities and enhance work productivity.

And now with such power as unlimited internet in your possession, there is so much you can get done. But first off, why don't you get a **Domain Registration** done to promote your own brand of content, information, articles, products, ideas, and businesses... etc. – whatever you want.

Coincidentally, and to your massive convenience, BTL happens to provide Domain Registration among its services tailored for a distinctive identity under your own name. Stand unique with a **.bt** domain name. Choose your domain name with BTL and you shall establish your presence on a global scale.

**My BT App:** Nowadays, you can do almost anything online. So we ask ourselves, why slog away every time to pay monthly bills, utilities etc. The solution to all that is BTL's **My BT App**. Get multiple tasks done from one place. My BT App is your one-stop solution to routine activities like the ones aforementioned but it is also the empowering device that helps you multi-task every other activity that fills out your day. Speaking of which, don't forget that you get notified for calls you have

missed by enabling **Missed Call Alert** from My BT App – a gentle reminder from BTL to cover all corners.

And just in case you are down on data to purposefully get back to those missed calls; BTL offers this life-saving service – You can easily convert your Talk-time balance to data through My BT App.

**Lends an ear and a helping hand:** With BTL's WhatsApp Chatbot, customers receive immediate response to queries. You will understand the relief and gratitude of getting immediate response and assistance (without being put on hold), if you have had to endure those longish and endless minutes while on hold to "Connect to an Operator. Just send a WhatsApp message to +97517112022 to get the Chatbot started.

**Stay classy, trendy:** Spin-dialing numbers on the rotary dial phones is a quaint memory in our heads to remember how we used phones back in the day. The analog phones are slowly headed in that direction. As the mobile phone of mobile phones showed up every now and then – new and improved each time – the era of black-and-white mobile phones was but almost a blink and you'll miss it moment and it was easily phased out.

Android phones are 'the' thing of beauty spreading joy for everyone. They are more user-friendly than ever

before. And everyone must have it or be prepared to live life at the end of the tether – well, there's no other way to put it. It's Communication in the palm of the hands and on your fingertips; it's reality of the times and one must possess the tools.

That being said, BTL has its customers covered. It has stepped in to present a range of options. Get Android phones of all ranges at affordable rates from BT Counters.



Sharing your phones can be frustrating, as phones have become an indispensable part of our daily lives. Explore diverse range of phones tailored to various budgets and individual needs from BT Counters.



## BTL – IT PROTECTS

Bhutanese are generally an easily trusting lot; it's been said. They have no second thoughts being of assistance to a fellow countrymen or countrywomen. But the world we know of this 21st Century is a complex entity wherein advanced tech-powered realities are in operation. Risks and rewards are your adjoining companion at every corner.

**Identity Theft:** It is one of the things we're staking simply by being part of this age. Identity theft is a serious issue that can have severe consequences. BTL in its constant drive to protect its customers/users runs round the clock advisories on it.

Below is a sample of what is broadcast/Published/Circulated

- Never lend your ID Card to anyone to purchase a SIM.
- If you have a SIM under someone else's name, update it to your own.
- Use the KYC feature in My BT App to update your information and be safe.

**Online Scams:** If a deal is too good to be true, it probably is. Common sense however remains uncommon among many. And therefore, a modern-day fraud in the age of technology originates in one place/country on one continent but easily spreads its scandalous tentacles all across the globe.

QNET Scam and Tallwin Life Plan are examples of online scams and Ponzi schemes that defrauded, duped and robbed many a gullible Bhutanese of their hard-earned money.

Following are Scam alert messages spread to as wide an audience by BTL and proliferated through various media to educate and caution people so that they do not fall prey.



### PAY YOUR BILL DIRECTLY

Make bill payments for landline, broadband and other utilities right from the app.



### PURCHASE DATA PLANS

Easily purchase your desired data plan using your main balance.



### CHECK YOUR DATA USAGE

You can view your profile details and check on your outstanding dues.



### MANAGE BROADBAND

View broadband plans and keep track on your balance and validity.



### ENJOY ELOAD SERVICE

Convenience of mobile recharge available right from your phone.



### ACCESS MULTIPLE BT SERVICES

It's one application with multiple service. Access B-Wallet and B-Ngul right from this app.







## THE BTL – IT REWARDS

When you're with BTL or when BTL is with you, it's not just about the service and the protection; there are of course the rewards. And you can have your hands out all the time because goodies of some kind are always dropping by.

It's the traditional New Year or Losar and the first season's greetings you'll receive is from BTL who even beats your best friends to doing it. Be honest, it really does happen, right? His Majesty's Birth Anniversary; The Great Fourth's Birth Anniversary; Birth Of HRH the Gyalsey; most recently the birth of HRH the Gyalsem — the wishes just pour in, and not without fringe benefits for you.

The "50% bonus on both voice and data recharge and 10% bonus on both voice and data if recharged via B-Ngul" is a familiar tune all the time and music to all subscribing ears. "Data free for the day" is how it goes for those subscribing Post-Paid (SIMs)

The promises of 'Giveaways' and the Promises Kept on the 'Giveaways' as frequently announced on the BTL Facebook page is a constant delight for those closely following BTL online. Receiving free data or a decent Android smartphone handset is for anyone's bet as they test how lucky they are feeling. Promise made, promise kept; and obviously they keep coming back for more.

### SCAM ALERT 🚨

If you receive a call pretending to be from Bhutan Telecom, don't forget to check the country code (+975). Ensure your safety by keeping your personal information up-to-date, because your SIM is your identity. You do not need to go to BT office to change or update your SIM details. You may easily do it from your phone using the KYC feature in My BT App.

### SCAM ALERT 🚨

Be aware of fake Facebook Profiles/Accounts/Pages claiming to be the Company Assistant of Bhutan Telecom Ltd. It is neither operated by Bhutan Telecom Ltd. nor our certified media partner. Do not provide sensitive personal information (such as your mobile number or other personal details). Kindly alert us right away or give us a call at 1600. Stay vigilant!



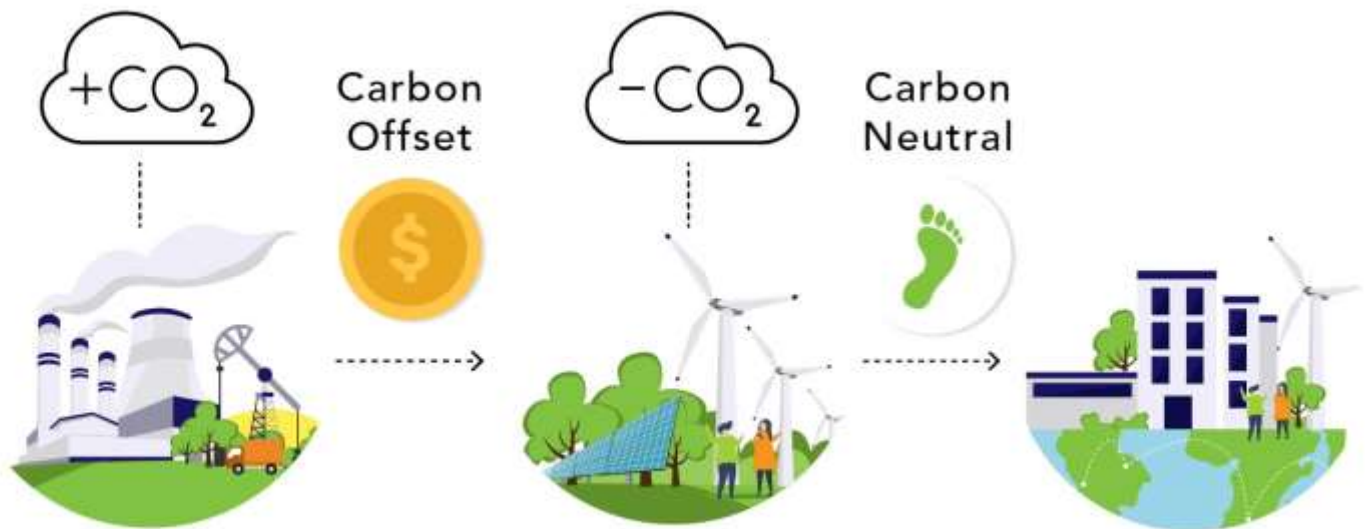
## BTL – SERVES, PROTECTS, REWARDS – YOU

A network that provides service to you; protects you; and also rewards you from time to time. Sometimes a good deal is exactly just that – and BTL happens to be all that.



**For Support & Enquiry**  
**Call – 1600 (Toll Free)**  
**[www.bt.bt](http://www.bt.bt)**

# Carbon neutrality: Toward a sustainable future



**Carbon neutrality** means a balance between emitting carbon and absorbing carbon from the atmosphere in carbon sinks. It refers to net-zero carbon dioxide (CO<sub>2</sub>) emissions attained by balancing the emission of CO<sub>2</sub> with its removal so as to stop its increase in the atmosphere that causes global warming.

As the additional CO<sub>2</sub> in the atmosphere continues to produce a greenhouse effect, the Earth is committed to further warming, even if we stop carbon emissions immediately. The goal of carbon neutrality is to limit the temperature increase. Enormous efforts by all countries are needed to achieve this goal. The warming in the recent past has already damaged our living environment on a gigantic scale – insects, drought, flood, wildfires, species extinction, loss of biodiversity, ocean acidification, glacier retreat, Arctic and Antarctic ice melt, sea-level rise, etc.

As of February 2021; 124 countries had pledged to achieve carbon neutrality by 2050 or 2060. This is a remarkable development reached after the annual United Nations Conference of Parties of 1995, in particular those of Kyoto (1997), Bonn (2001), Bali (2007), and Paris (2015), with progressively more concrete binding commitments to emission reduction by the parties (countries). The internationally concerted effort toward carbon neutrality could be the largest international agreement achieved in human history. This is a positive sign of international societal development.

## The benefits of reaching carbon neutrality

Less environmental pollution and improvements to health. A boost to sustainable economic growth and the creation of green jobs. Enhanced food security by lessening the impact of climate change.

To achieve carbon neutrality, there's a need to reduce carbon emissions in as many ways as possible, including:

- (1) replacing fossil fuels with carbon-free renewable energies, hydropower, and nuclear power;
- (2) industrial CO<sub>2</sub> capture, removal, storage, and utilization;
- (3) reuse of solid wastes; and
- (4) reducing energy consumption and increasing energy use efficiency.

In the meantime, we should also enhance carbon sinks in land and ocean. The potentials of renewable energies, including wind, solar, biomass, geothermal, tidal, and hydrogen energies, are enormous and can meet our energy needs. Carbon neutrality will greatly slow down global warming and solve our energy crisis, with accompanying benefits to air quality, ecological recovery, and landscape beautification.





## Bhutan pavilion to present Sustaining Carbon Neutrality at COP28

Source: Kuensel

Delegates from Bhutan to the Conference of the Parties (COP28) will host the Bhutan pavilion themed “Sustaining Carbon Neutrality,” as concluded at the two-day symposium titled Road to Dubai: The Bhutan Story at COP28.

Representatives from Bhutan Ecological Society (BES) along with other agencies and the government will be participating in the first-ever Bhutan pavilion at COP28 between November 30 and December 12 this year.

The Bhutan pavilion will focus on community action, natural capital and conservation, carbon stewardship, energy transition, food and water security, and green and urban resilience.

Organized by BES, the seventh annual symposium centered around critical focus areas for climate action in Bhutan to drive a sense of urgency, action, and the mobilization of finances and partnerships.

Dasho Paljor J Dorji, an environmentalist, said Bhutan should be supported and paid for remaining carbon neutral. “Bhutan did not achieve carbon neutrality just like that. It has compromised so many opportunities in its move of sustainable development. Bhutan is denied the right to be among the first countries to get the benefits of carbon trade compared to some nations that damaged the forest and re-forested it,” He said.

Bhutan Pavilion is pivotal to demonstrating Bhutan’s commitment to addressing the urgent challenges posed by climate change by highlighting Bhutan’s climate priorities, adaptation and mitigation strategies. The Pavilion enables Bhutan to showcase its sustainable and green development initiatives and explore opportunities for green-financing and sustainable investments.

Bhutan’s ability to comprehensively align its national policies to achieve global goals, especially for climate action is important because such actions have earned political capital and credibility. However, with graduation from its Least Developed Country (LDC) status by 2023 as well as the completion of the 13th Five Year Plan, the upcoming COP28 presents an important moment for Bhutan to harness in the context of its developmental planning.

The concern to increase Bhutan’s resilience and diversify its economy, support job creation and livelihoods without compromising its environmental track record and transforming into a creative viable market-based sustainable economy and continue to remain carbon-neutral are some grappling challenges that Bhutan must contend with.

The Bhutan pavilion hinged on “Sustaining Carbon Neutrality,” is viewed as a testament to Bhutan’s commitment to environmental protection and a call for global collaboration in its ambition for a more sustainable world.

Bhutan has been involved in the UN climate negotiations since it signed the United Nations Convention Framework on Climate Change (UNFCCC) in 1992 and ratified it in 1995. A total of 199 parties (198 states and the European Union) are party to the UNFCCC.

Bhutan pavilion aims to demonstrate the nation’s climate priorities, adaptation, and mitigation strategies—showcasing sustainable and green development initiatives, exploring opportunities for green-financing, and seeking sustainable investments as Bhutan joins G77 and China Negotiating Bloc among others.



## City Bus Service

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