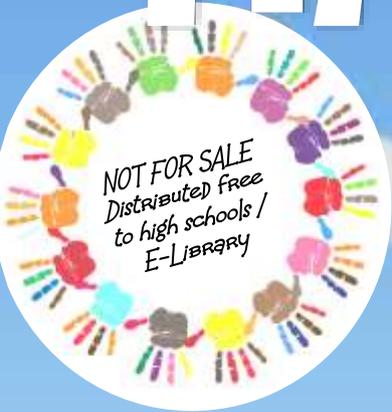




# HAPPINESS

Development with Values



**“We look to the youth of Bhutan to come forward – in this hour of need – so that, beyond overcoming the challenges posed by COVID-19, we build a stronger nation.”**  
**His Majesty the King**

**Nationally Determined Contributions (NDCs)**  
**Public Financial Management (PFM)**  
**The DRE mission to electrify Aja Ney Community**

**GECDP Mainstreaming: Advantages of including the overlooked, and almost forgotten**

**The Enhanced Integrated Framework (EIF) initiative in Bhutan**

**Tobacco Cessation Program: Toeing the cessation line**

**Youth: Incorporating the young**  
*Special coverage:*  
***Frugal Economy***

# HAPPINESS



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- Toeing the cessation line: *On the warring path against tobacco*
- GECDP Mainstreaming: *Advantages of including the overlooked, and almost forgotten*
- The Enhanced Integrated Framework (EIF) initiative in Bhutan
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## Onward and beyond! COVID aside

When the going got tough, the tough got tougher. Powerfully inspired and guided — with His Majesty leading the fight from the front — the nation continues to steer itself clear through the unpredictable junctures of the relentless COVID-19. Throwing one curveball too many, the resilience of a nation's ultimate mettle is truly, tried and tested. Still, it comes out on top, glorious and unscathed, with some to



## Letters

**Your warm wishes keep us going . . .do keep them coming!!!**

Dear students,  
The seriousness of responsibility worn by one mind might just be replicated by another, and then another to build a chain of responsible individuals, who operate responsibly automatically on their own without having to flip through info leaflets or scroll through health web pages. Here the bet is pinned on “Hope it does.”

As you return to your places of learning, schooling would be the same, where you learn your lessons as laid out for the academic year. But as you school yourselves in an atmosphere of apparent danger looming large of the COVID 19, it falls upon you to shoulder the responsibility of being mindful of all measures that keep you safe and keep those others around you safe.

After all, a chain is only as strong as its weakest link. And in these unpredictable times, no one, nobody can afford a weak link, not even one. The new normal is about being safe, wise and responsible by wearing mask, keeping distance and washing hands.

Stay strong, keep others strong.

Cheers,  
Happiness Team

**Keep in touch!**  **E-mail!**

*Got an interesting story to share? Have any experiences you want to narrate? Or just feel like you have an interesting article to share? We have a space to promote something on those lines, to spread the good culture of reading and keep alive the art of writing. ☺ Share your happy stories with the Happiness at [happinessbooklet@gmail.com](mailto:happinessbooklet@gmail.com) We would love to hear from you.*

spare. It will take every bit of the nation and people's grit and patience to do their bit to endure and outlast the testing course. It's not over.

And although the pandemic restlessly asserts an urgent sense of self-importance for itself (forcing two lockdowns on the nation) it has not hit the pause button on matters that the nation needs to continuously address. The country still needs to stay dedicated to its national development goals; oversee plans and policies; monitor progress and implement necessary actions across the board. The pandemic takes priority, but not by overwriting long planned visions and goals.

Having a well-stocked, perennially preserved environment in its folds and by proxy having become the master conservator of biodiversity, this has become the hallmark identity of Bhutan. In a world that is revolving around the sun but dancing to the tune of climate change, environmental conservation has come around as something of a real big plus point for any country. Round of applause for Bhutan on nailing that one but there are still conditions it has to keep steady; keeping GHG emissions at permissible limits to accommodate the earth's temperature below 1.5 degrees for one, is an obligation to meet as a country that is party to the UNFCCC, The Kyoto Protocol and The Paris Agreement. While planning, programming and implementing climate actions in that respect, the country has to keep updating and declaring these actions as NDCs or Nationally Determined Contributions to the UNFCCC. There's definitely work there that cannot be paused; because climate change hasn't taken a day off.

Development cannot be a lopsidedly bulldozing machinery, and for that matter, there has been various instruments to streamline development along those lines. The mainstreaming of GECDP or Gender, Environment, Climate change, Disaster management and Poverty into the country's major plans and policies was a process that began in 2006 and took shape during the 11th FYP. GECDP Mainstreaming has since then seen successful incorporation by way of GNH policy instruments. It's a continual process, and definitely that cannot be told to hold its breath on account of Coronavirus.

In the same breath (of not asking vital development lifelines to hold their breath), there is noteworthy work being pursued by the renewable energy department to light up Aja Ney, a place of immense cultural value that

has been rather 'dimly lit' when it comes to receiving the light of priority and be (properly) electrified like the rest of the nation. Certainly this line of work cannot be allowed to take a siesta on account of the COVID Pandemic.

Bhutan is of course a trading nation now, no longer wearing its 'isolationist' avatar. It opened its economy for various trade instruments and to trading partner nations. In continuing to stockpile and build a robust structure for itself, it needs to continue building steam in improving and maintaining its performance on such fronts as the EIF or Enhanced Integrated Framework to introduce, implement, monitor, assess and keep racking up the count on indices that make the country a business entity that balances exceptionally well on the Ease of Doing Business scale. Like all of world nations, this is one sector that really cannot stop to catch its breath – COVID or no COVID.

The World Bank reported the country's Public Financial Management (PFM) levels to be at an advanced level. That was in 2017 and the country with 'Good Governance' as one of its GNH Development philosophy's chief pillars has in every way strived and succeeded to keep the numbers crunching. This leads to reducing transaction costs and harmonizing donor support among others. Even without a pandemic in perspective, keeping up the advanced PFM level was gauged as something of a challenge. But of course Bhutan has no plans yet to hang up its superhero cloak; just to fulfill obligations to COVID-19.

Tobacco has been freely killing people across the world and doing the same in the country. A combined arsenal of laws and education has been the two-headed effective strategy pursued for years. It has had its hits, and misses. The agencies that be, are now bringing on board an intensely pursued cessation program to make the bigger dent in achieving tobacco control. This one surely can't be allowed to stop, simply in the name of - - washing hands, keeping distance and wearing masks. After all, nobody wants to see the nation's health go up in smokes.

Read up on these topics in this edition of Happiness while also going through a select coverage on 'Frugal Economy as an Alternative Economic System.' Stay safe, stay away from crowds, stay indoors as far as possible, practice hand-hygiene (with hand sanitizers/soap and water), protect your loved ones, protect yourself.



# A Convention, A Protocol & An Agreement



United Nations Framework  
Convention on Climate Change



*Kyoto Protocol*



Failing is not a blueprint for success, same goes for dying – Dying is not a blueprint for success. For all the wonders that humankind has successfully achieved -- in putting flying metallic planes in the skies; floating and sailing iron ships on seas; building magnificently mind-numbing giant structures in buildings, skyscrapers, bridges; and inventing dizzyingly advanced tech wonders in gadgetry and software – the collective world nations are not ready to roll over and die when it comes to calling the earth a dying planet. There’s no calling it a day fighting the good fight against challenges thrown by climate change and other environmental disasters.

Operating in that ‘save the planet (or die trying)’ tone, world nations have long put their heads and hearts together along with their resources to combat a common adversary in climate change; mitigate its impacts. The outcome of a united drive against the largely looming climate disaster have come into form through an internationally agreed Convention (UNFCCC), and an equally subscribed Protocol (The Kyoto Protocol) that became a unanimously agreed agreement (The Paris Agreement). This three-pronged approach is the greater vehicle that drives all member nations—party to the aforementioned international pacts— in doing their part to weed out contentions and harmoniously mitigate climate change issues and also strengthen countries’ ability to tackle the impacts of climate change.

# THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC)

The United Nations Framework Convention on Climate Change (UNFCCC) is an international environmental treaty addressing climate change, negotiated and signed by 154 states at the United Nations Conference on Environment and Development (UNCED), informally known as the Earth Summit, held in Rio de Janeiro from 3 to 14 June 1992. It is a global framework for international cooperation primarily through a negotiation process to combat climate change. It is a broad and dynamic framework treaty which is constantly evolving and getting strengthened overtime with increase in political will and scientific knowledge.

**Institution of UNFCCC:** It established a Secretariat headquartered in Bonn and entered into force on 21 March 1994. As of 2020, the UNFCCC has 197 signatory parties. Its supreme decision-making body, the Conference of the Parties (COP), meets annually to assess progress in dealing with climate change.

**Objective of the UNFCCC:** The convention seeks for the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent *dangerous* anthropogenic human-induced interference with the earth's climate system. Such a level should be achieved within a timeframe sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

**Obligations for the Parties under the Conventions:** The UNFCCC establishes different responsibilities for three main Groups of signatory states – **Annex I Parties** which include the industrialized countries that were

the members of the Organization for Economic Cooperation and Development (OECD) in 1992 plus the countries with Economies in Transition (EIT), **Annex II Parties** which consist of only the OECD members of the Annex I. They are required to provide financial resources to development countries to support their climate actions. Besides, they are also required to support technology development and transfer to EIT parties and development countries and **Non-Annex I Parties** (mostly developing countries) which are more vulnerable to the climate change impacts.

The Annex I countries, originally consisted of 38 states, 13 of which were Eastern European states in transition to democracy and market economies, and the European Union. All of them belong to the Organisation for Economic Cooperation and Development (OECD). These developed countries are called upon to adopt national policies and take corresponding measures on the mitigation of climate change by limiting their anthropogenic emissions of greenhouse gases as well as to report on steps adopted with the aim of returning individually or jointly to their 1990 emissions levels. The Annex II countries include all of the Annex I countries with the exception of those in transition to democracy and market economies. Annex II countries are called upon to provide new and additional financial resources to meet the costs incurred by developing countries in complying with their obligation to produce national inventories of their emissions by sources and their removals by sinks for all greenhouse gases not controlled by the Montreal Protocol. The developing countries are then required to submit their inventories to the UNFCCC Secretariat.



# THE KYOTO PROTOCOL

As mentioned above, the Architecture of the international climate change regime is expected to unfold and keep strengthening. Five years after the signing of the UNFCCC treaty in 1992, the Kyoto Protocol was adopted. The Kyoto Protocol is an international treaty which extends the 1992 UNFCCC which commits state parties to reduce greenhouse gas emissions, based on the scientific consensus that global warming is occurring; and it is extremely likely that human-made CO<sub>2</sub> emissions have predominantly caused it. The Protocol was adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005. There are currently 192 parties to the Protocol. The Kyoto Protocol has its own significant characteristics towards the Convention's objective, notably the process of differentiating Annex I from non-Annex I parties. It imposes legally binding emission reduction targets and timelines for the Annex I countries over successive commitment periods. Nevertheless, the protocol also establishes 3 'flexibility mechanisms' that allow the Annex I parties to meet their emission targets.

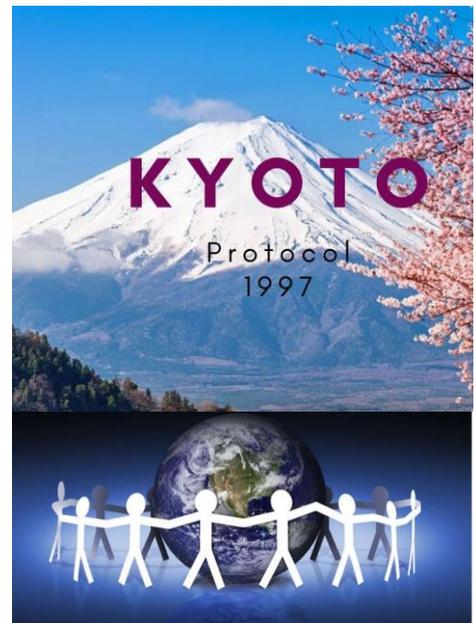
**Objectives:** The main goal of the Kyoto Protocol is to control emissions of the main anthropogenic (human-emitted) greenhouse gases (GHGs) in ways that reflect underlying national differences in GHG emissions, wealth, and capacity to make the reductions. This is aimed through setting of binding targets for 37 industrialized countries and European community for reducing GHG emissions to an average of 5% against 1990 levels over 2008-2012 and 2013-2022 commitment periods.

The treaty follows the main principles agreed in the original 1992 UNFCCC. The Protocol applies to the six greenhouse gases listed in Annex A: carbon dioxide (CO<sub>2</sub>), Methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF<sub>6</sub>). The Kyoto Protocol with the Doha Amendment implemented the objective of the UNFCCC to reduce the onset of global warming by reducing greenhouse gas concentrations in the atmosphere to 'a level that would prevent dangerous anthropogenic interference with the climate system.'

**Commitment period:** The first commitment period started in 2008 and ended in 2012. All 36 countries that fully participated in the first commitment period complied with the Protocol. A second commitment period was agreed in 2012. It is called the Doha Amendment to the Kyoto Protocol in which 37 countries have binding targets

**Obligations to the Kyoto Protocol:** The Protocol acknowledges that individual countries have different capabilities in combating climate change, owing to economic development, and therefore puts the obligation to reduce current emissions on developed countries on the basis that they are historically responsible for the current levels of greenhouse gases in the atmosphere.

**Transition to the Paris Agreement:** Negotiations were held in the framework of the yearly UNFCCC Climate Change Conferences on measures to be taken after the second commitment period ended in 2020. This resulted in the 2015 adoption of the Paris Agreement, which is a separate instrument under the UNFCCC rather than an amendment of the Kyoto Protocol.



The Paris Agreement is a separate instrument under the UNFCCC rather than an amendment of the Kyoto Protocol. Negotiations in the framework of the yearly UNFCCC Climate Change Conferences on measures to be taken after the second commitment period. This resulted in the 2015 adoption of the Paris Agreement

# THE PARIS AGREEMENT

Signed in 2016, the Paris Agreement is an agreement within the UNFCCC, dealing with greenhouse-gas-emissions mitigation, adaptation, and finance. As of February 2020, all 196 members of the UNFCCC have signed the agreement and 189 have become party to it. After it superseded the Kyoto Protocol, the Paris Agreement became a separate instrument under the UNFCCC.

**Objectives:** The Paris Agreement central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. This would substantially reduce the risks and impacts of climate change.

**Obligation of the Parties to the Paris Agreement:** Under the Paris Agreement, each country must determine, plan, and regularly report on the contribution that it undertakes to mitigate global warming. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework.



## NATIONALLY DETERMINED CONTRIBUTIONS (NDCs)

The Paris Agreement requires each country to outline and communicate their post-2020 climate actions, known as their Nationally Determined Contributions or NDCs in order to achieve the objective of the PA of limiting the global temperature increase to well below 2°C while pursuing efforts to limit the increase to 1.5°C. The NDCs represent efforts by each country to reduce national emissions and adapt to the impacts of climate change. The climate actions contained in all the NDCs submitted by different parties will represent the collective global effort towards the Paris goal. Typically, it is like different agencies' contributions towards the country's overall goal. The Paris Agreement's architecture provides this flexible space to the parties to devise their own climate actions in the form of NDCs that they are willing to undertake. There is no top-down emphasis like the Kyoto Protocol. However, the agreement also calls for ambitious and progressive NDCs overtime.

The Paris Agreement requires each Party to prepare, communicate and maintain successive NDCs that it intends to achieve. In this, Parties are to pursue



The NDCs represent efforts by each country to reduce national emissions and adapt to the impacts of climate change



**2015**



INDCs presented.  
Synthesis report on the aggregate effect of INDCs.  
COP 21: Adoption of Paris Agreement.

**2016**



Paris Agreement signing ceremony (ratification by each country also implies delivery of its NDC, which is no longer just 'intended').  
Update Synthesis report on the aggregate effect of INDCs.  
Paris Agreement enters into force, thanks to ratification by 55% of the parties, covering 55% of global emissions.

**2018**



New IPCC publication on risks and Impacts of a 1.5-degree Celsius temperature increase.

**2020**



Presentation of 2nd round of NDCs.  
COP 26.

**2023**



First global evaluation informing about the 3<sup>rd</sup> round of NDCs, marking a new beginning in the review cycle (every five years) to push for COP 29.

**2025**



Presentation of 3rd round of NDCs.  
COP 31.

**2028**



Second global evaluation informing about the 4<sup>th</sup> round of NDCs.  
COP 34.

**2030**



Presentation of 4th round of NDCs.  
COP 36.

**Long term goal**

Keep warming below 2 degrees Celsius, pursue efforts to limit it to 1.5 degree Celsius.



domestic mitigation measures, with the aim of achieving the objectives of such contributions. The Agreement says all Parties have to put forward their best efforts through NDCs and to strengthen these efforts in the years ahead. This includes requirements that all Parties report regularly on their emissions and on their implementation efforts.

**The Paris Agreement and NDCs:** In the year 2015, 196 countries party to the Paris Agreement came together to transform their development paths so that they set the world on a course toward sustainable development, aiming at limiting warming to 1.5 to 2 degrees above pre-industrial levels.

Through the Paris Agreement, Parties also agreed to a long-term goal for adaptation – to increase the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production. Additionally, they agreed to work toward making finance flows consistent with a pathway toward low greenhouse gas emissions and climate-resilient development. Together, these climate actions determine whether the world achieves the long-term goals of the Paris Agreement.

Each climate plan (NDCs) reflects the country's ambition for reducing emissions, taking into account its domestic circumstances and capabilities. There will be a global stocktake every 5 years to assess the collective progress toward achieving the purpose of the Agreement and to inform further individual actions by Parties.

**Biennial Transparency Report (BTR):** In addition to scientific research and findings by the Intergovernmental Panel on Climate Change (IPCC), information reported in BTRs is considered at a collective level as an important input into the global stocktake, leading to stronger climate action that will continue as the climate regimes moves towards the goal of zero net emissions by 2050 and climate neutrality thereafter.

Parties under the Paris Agreement are required to submit their first biennial transparency report (BTR1) and national inventory report, if submitted as a stand-alone report, in accordance with the MPGs, at the latest by 31 December, 2024.

### **Reporting and Review under the Paris Agreement**

The Paris Agreement establishes an Enhanced Transparency Framework (ETF) designed to build trust and confidence that all countries are contributing their share to the global effort.

A framework was fleshed out during the COP24 (Dec, 2018) that is applicable to all countries by adopting a detailed set of modalities, procedures and guidelines (MPGs) that make it operational. The MPGs are based on a set of guiding principles and define the reporting information to be provided, the technical expert review, transitional arrangements, and a facilitative multilateral consideration of progress. The ETF provides built-in flexibility to those developing countries that need it owing to their national capacities.

Through the detailed guidance on the reporting/review/consideration processes for the information to be submitted and by making these reports publicly available, the ETF will make it possible to track the progress made by each country. In this way, it will be possible to compare a country's actions against its plans and ambitions as described in its Nationally Determined Contributions (NDCs).

**Transition to the ETF:** The ETF under the Paris Agreement builds on the current, solid measurement, reporting and verification system under the Convention, which for developed countries is the GHG inventories and the International Assessment and Review and for developing countries is the International Consultation and Analysis.

The final biennial reports for developed countries are due as early as the date of the annual GHG inventory submission in 2022 (i.e. 15 April 2022) but no later than 31 December 2022 and they will be multilaterally assessed to complete the final IAR cycle during 2023-2024. The final biennial update reports for developing countries are those submitted no later than 31 December 2024 and will undergo the last ICA cycle between 2024 and 2026.

**ETF and the Global Stocktake:** The enhanced transparency framework represents an important component of the ambition cycle in the global climate regime established by the Paris Agreement by building trust and confidence that countries are taking action to meet their national climate targets and actions defined in their NDCs under the Paris Agreement.

# FINANCIAL MECHANISMS

Financial support is imminent for the developing and least developed Parties to achieve the goals of the Convention (UNFCCC), the Protocol (The Kyoto Protocol) and The Agreement (Paris Agreement) through implementation of climate actions.

Parties have established a number of special funds: The Special Climate Change Fund (SCCF), the Least Developed Countries Fund (LDCF), which are both managed by the Global Environment Facility (GEF). Apart from this, funding for climate change activities is also available through bilateral, regional and multilateral channels.

**UNFCCC:** The developed countries with special financial responsibilities, also called Annex II countries are called upon to provide new and additional financial resources to meet the costs incurred by developing countries in complying with their obligation to produce national inventories of their emissions by sources and their removals by sinks for all greenhouse gases not controlled by the Montreal Protocol. The Green Climate Fund (GCF) is established under the UNFCCC.

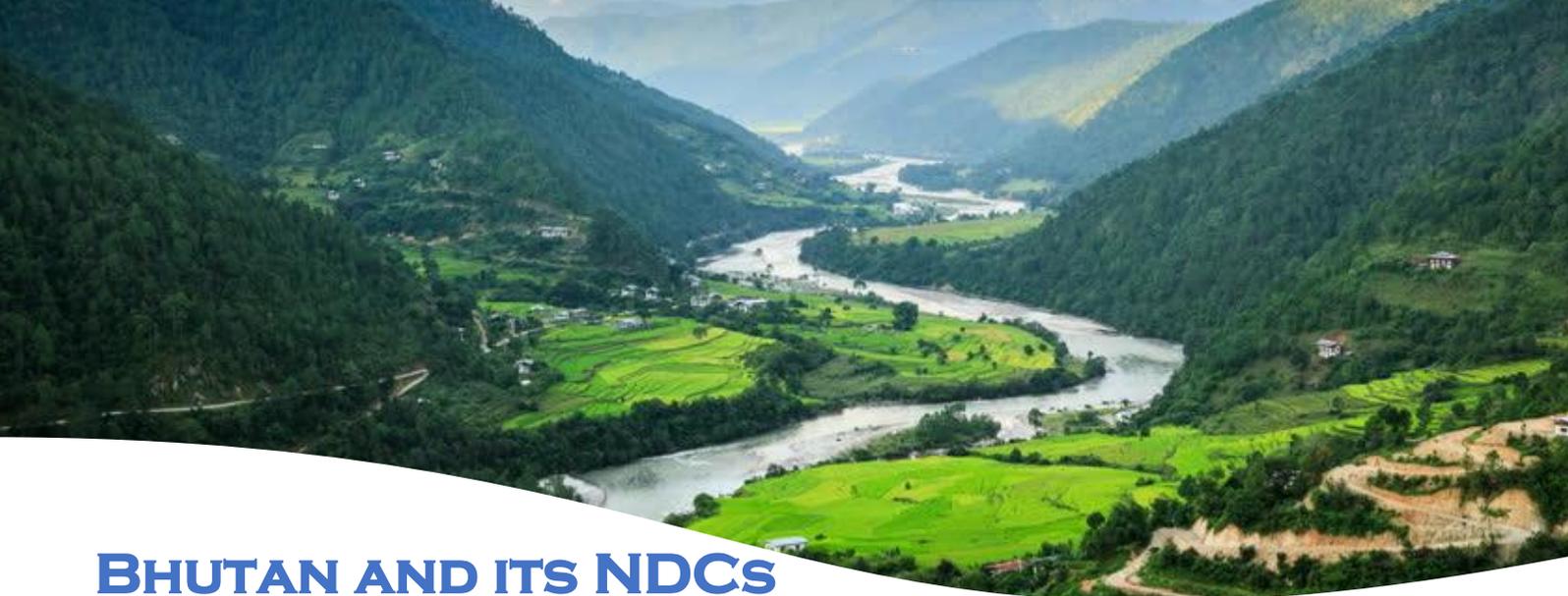
**The Kyoto Protocol:** The Kyoto Protocol recognizes, under its Article 11, the need for the Financial Mechanism to fund activities by developing country Parties. The Adaptation Fund (AF) is established under the Kyoto Protocol

**The Paris Agreement:** To realize the ambitious goals of the Agreement, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place. This supports actions by developing countries and the most vulnerable countries, in line with their own national objectives. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework.

Included under the umbrella of the Agreement are also aims to increase the ability of parties to adapt to the adverse impacts of climate change and make "finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development." It aims to make "finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development."

Acknowledging the fact that capacity-building and support from developed country Parties will be crucial to facilitating improvement in reporting over time, the Katowice decision requested the Global Environment Facility to support developing country Parties in preparing their first and subsequent biennial transparency reports. Further, developing country Parties will be given assistance to fulfil their reporting requirements under the Convention from the Consultative Group of Experts which will also support the implementation of the ETF.





## BHUTAN AND ITS NDCs

In its First Nationally Determined Contributions (NDC) that was submitted to the UNFCCC Secretariat in 2015, Bhutan pledged to remain carbon neutral for all times to come. This global commitment was based upon a declaration which was already made in 2009. This means that Bhutan will continue its efforts to maintain its GHG emissions below the country's total carbon sink from land use, land use change and forestry (LULUCF).

The government at the same time called for international support for remaining carbon neutral. International support is becoming increasingly crucial as Bhutan graduates from its status as an LDC and loses access to concessional financing.

Bhutan's carbon neutral commitment technically means that we will continue to neutralize our GHG emissions by enhancing our sink capacities. Bhutan has already made a striking achievement under the Paris Agreement which states that one of its objectives is to reach a *global balance between anthropogenic emissions by sources and removals by sinks of GHGs in the second half of the century*. Our country has already achieved the Paris Agreement's long-term target of net-zero emission. However, we should strive to maintain the *status-quo* for all times in near future.

As highlighted above, more ambitious NDCs in future might demand the need to limit the emissions from key economic sectors like industry, transport, and agriculture. This necessarily does not mean limiting their growth and expansions; the country is already embarking on the low-carbon development strategies and plans. The major ones are the formulation of the Low-Emission Development Strategies for Industries, Human Settlement, Transport and Agriculture.

In late 2019, Bhutan released its National Energy Efficiency and Conservation (EE&C) Policy supported by an Energy Efficiency Roadmap which has the potential to reduce emissions by up to 0.3 MtCO<sub>2</sub>e per

annum between 2020 and 2034. The policy targets the industry, building and appliance sectors.

In June 2019, Bhutan published a National Waste Management Strategy with a target of zero waste by 2030. This policy will likely reduce waste sector emissions. However, it is not included in the CAT current policy projections as there are no quantifiable targets for emissions deductions.

Bhutan's 2020-21 budget allocated for energy focuses on hydropower. Bhutan's current electricity generation capacity is 98% medium and large hydro projects. However, diversifying Bhutan's renewable electricity capacity presents several potential benefits including economic growth, industrial development, job creation, rural electrification, and moving the electricity system away from its reliance on seasonal weather patterns. The Bhutan Power Corporation (BPC) has plans for a 180 kW ground mounted PV solar project, which may prove to be a catalyst for further development of solar.

Bhutan also has a few projects that will reduce emissions in the transport sector but rising demand for vehicles has driven an increase in the nation's demand for diesel and petrol. Bhutan is estimated to have 125 cars per 1000 inhabitants, and this is set to grow with combustion vehicle imports. The EE&C policy calls for technical studies on the use of electric and hybrid vehicles. The United Nations Development Program (UNDP) and the Bhutan Government are conducting a low-emissions urban transport project to promote the uptake of EVs to reduce emissions and reduce the reliance in fossil fuel imports. The government has offered a 20% subsidy for electric taxis and is considering a host of other financial incentives to promote green vehicles. Transport policies are not included in the Climate Action Tracker (CAT) current policy projections as there is no quantifiable data.



# Public Financial Management (PFM)



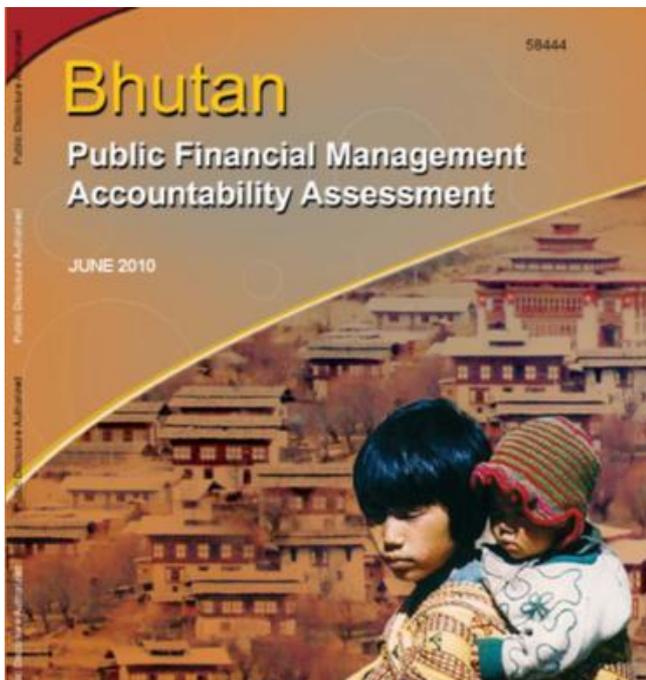
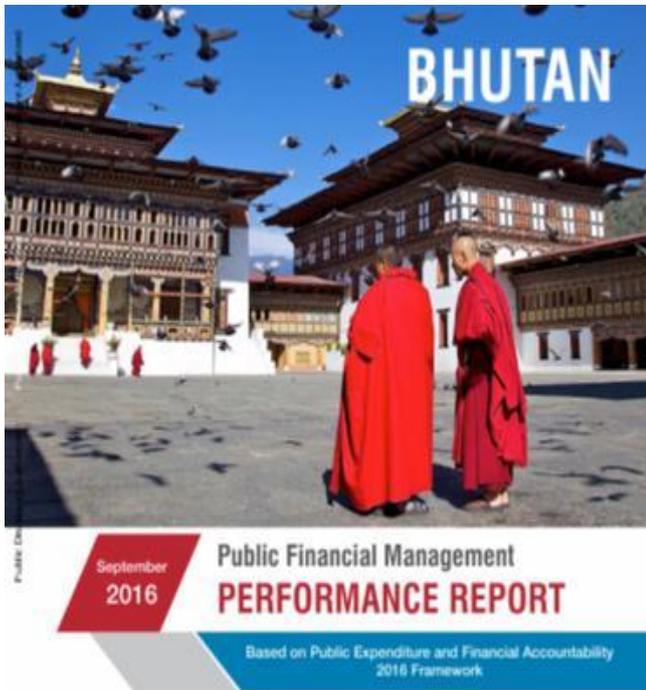
## Maintaining those high standards for Good Governance

As far as standards are concerned Bhutan has pegged them quite high, by running with a development philosophy that is unique only to itself – Gross National Happiness (GNH) as opposed to Gross Domestic Product (GDP) – but aspiring to achieve what is commonly desired by everyone – Happiness. Nothing less then, would be expected out of its level of Public Financial Management (PFM).



### What is Public Financial Management (PFM)?

PFM refers to the set of laws, rules, systems and processes used by sovereign nations, to mobilize revenue, allocate public funds, undertake public spending, account for funds and audit results. It encompasses a broader set of functions than financial management and is commonly conceived as a cycle of six phases, beginning with policy design and ending with external audit and evaluation. A large number of actors engage in this “PFM cycle” to ensure it operates effectively and transparently, while preserving accountability.



One of the chief pillars of Bhutan’s GNH development philosophy is Good Governance. Pursuing and strengthening the country’s PFM systems then is certainly high priority and a well-positioned move up that good governance alley. The country has been doing that since 2017 by pursuing a PFM reform action program based on Public Expenditure and Financial Accountability (PEFA) findings.

In 2017, the World Bank reported country’s PFM is at an advanced level. And the same year, Bhutan was only the fifth country in the world to be recognized by Public Expenditure and Financial Accountability (PEFA)



### Why is PFM important?

A strong PFM system is an essential aspect of the institutional framework for an effective state. Effective delivery of public services is closely associated with poverty reduction and growth, and countries with strong, transparent, accountable PFM systems tend to deliver services more effectively and equitably and regulate markets more efficiently and fairly. In this sense, good PFM is a necessary, if not sufficient, condition for most development outcomes.

A key element of statehood is the ability to tax fairly and efficiently and to spend responsibly. These are fundamental characteristics of ‘inclusive’ state institutions, which generate trust, promote innovative energies and allow societies to flourish.

Improving the effectiveness of a PFM system may generate widespread and long-lasting benefits, and may in turn help to reinforce wider societal shifts towards inclusive institutions, and thus towards stronger states, reduced poverty, greater gender equality and balanced growth. Even where donor staff do not seek to strengthen PFM systems, they need to understand them because they will often work through them, by providing budget support or climate finance, or with them, by providing project-financed interventions, which are then staffed and maintained through the national budget. In short, PFM matters, and all donor staff need a basic knowledge of PFM.

framework for its maintenance of high standards of PFM systems. PEFA is a method to assess a country’s PFM performance while aspiring to reduce transaction costs and harmonizing donor support among others.

Down the line, the country has to see it through that this advanced levels of reform efforts is sustained and driven further. It is gauged as something of a challenge; but regardless, it falls on the series of changing democratic governments to lay consistent emphasis on this, should they desire to continuously meet the bar that is, from the onset, raised high.



## Good Governance is one of the chief pillars of GNH

Strengthening the country's PFM systems is a well-positioned priority move up the good governance alley. The country has been doing that for nearly two decades by pursuing a PFM reform action program based on Public Expenditure and Financial Accountability (PEFA) finding. And the pace has been increased after 2010 and 2017 PEFA.



# The ground works laid, the foundation built

In the run so far to engage the best of practices – the best of PFM practices – the government has overseen the institution of two significant initiatives: one, the formation of a PFM-Governance Group and two, the establishment of a PFM-Multi-Donor Fund (MDF). The two initiatives help the government meet the objectives of finding sustained resources to carry out PFM reforms.

**The PFM governance group** facilitates putting in place institutional arrangements to lead the PFM reform agenda. It coordinates resources required for the implementation of the action plan.

**The PFM multi-donor fund** helps the government implement its PFM reform program (s) in a coordinated and holistic way. It is operationalized through a basket-funding mechanism by establishing a Multi-Donor Fund. This provides a common platform for development partners to come together by pooling their resources and efforts in strengthening PFM in Bhutan.

Currently, there is a multi-donor fund; it was established under the supervision of the World Bank. To this end, during a grant agreement signing in September 2017, the European Union (EU) contributed US\$ 3M and the Austrian Development Cooperation provided US\$ 1M. This helps the country manage public funds more effectively and improve the procurement and budgetary systems. This goes a long way in enhancing public service delivery and governance.

“The Multi-Donor Fund plays a catalytic role in leveraging knowledge and financing by drawing on the best expertise in the field and working closely with a broad range of partners and stakeholders,” states the PFM Performance Report based on the PEFA 2016 Framework. The PFM-MDF helps the RGoB implement its Reform Strategy 2017-2021 in a coordinated and holistic manner.



## What are the objectives of the PFM system?

To assess a PFM system, we first need to define its end objectives – the final outcomes, by which performance can be measured. It is generally accepted that a PFM system should achieve three objectives, to which we here add a fourth, namely the promotion of accountability and transparency, which is increasingly seen as an objective in itself, because of its close relationship to the notion of inclusive institutions:

**The maintenance of aggregate fiscal discipline is the first objective of a PFM system:** it should ensure that aggregate levels of tax collection and public spending are consistent with targets for the fiscal deficit, and do not generate unsustainable levels of public borrowing

**Secondly, a PFM system should ensure that public resources are allocated to agreed strategic priorities:** In other words, that allocative efficiency is achieved

**Thirdly, the PFM system should ensure that operational efficiency is achieved:** And that would be in the sense of achieving maximum value for money in the delivery of services

**Finally, the PFM system should follow due process and should be seen to do so:** It is done, by being transparent, with information publicly accessible, and by applying democratic checks and balances to ensure accountability.



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**PFM Reform Strategy and Action Plan:** Bhutan has been making exemplary progress in building its PFM systems to provide fiscal discipline, rational allocation of resources in line with Five-Year Plans (FYP), and to support efficient public service delivery. Externally validated assessments of its PFM in 2010 and 2016, using the PEFA methodology which is an internationally accepted standard, show its achievements over the years and the strengths and weaknesses of Bhutan's PFM. Comparison with other countries in the region shows that Bhutan is ahead of the regional average in most areas.

Nonetheless, weaknesses and risks do exist in the PFM system. And for that matter the PFM Reform Strategy and Action Plan has been designed to consolidate recent reforms, close gaps, improve transparency and accountability, build domestic revenue and integrate or interface several stand-alone systems.

**The Minus points that are corrected:** One of the weak areas for Bhutan in the PFM field as per the PFM Accountability Assessment Report of 2010, was a weak legislative scrutiny of budget report. In response to that the National Assembly (NA) Act is amended and a Finance Committee has been formed. The NA committee delivers the second budget speech at least 10 days after the budget presentation. Earlier, the budget was submitted and passed on the same day. Another identified shortcoming is that of a weak human capacity in terms of numbers and skills and inadequate resource base of own-source revenue of the Local Governments (LGs) and bureaucratic administrative systems hamper efficiency and effectiveness. These need to be addressed by the government.

**The Plus points to build on further:** The significant developments in decentralization is a highlight point for Bhutan to cash in on. According to the report, the introduction of the resource allocation formula for the clarity in terms of resource allocation and facilitated local level planning.

Additionally, issues of Local Government (LG) rules and other guidelines brought clarity to the roles of the local governance support.



### How do we know whether a PFM system is performing adequately or not?

Ideally, one would assess the PFM system simply by measuring performance against these four objectives. To a degree, this is possible. The achievement of fiscal discipline is straightforward to measure at an international level, and the Open Budget Index (OBI) provides a reasonable proxy for transparency. However, to measure allocative and operational efficiency requires special studies. Some OECD countries and more advanced middle income countries (such as South Africa) undertake these regularly through program evaluations or value for money audits. Some Public Expenditure Reviews (PERs) also address these issues but, in general, such studies are not common in developing countries and their structure rarely allows for easy international comparison.

In practice, the assessment of PFM systems focuses one level down from final outcomes – that is on the examination of the institutions, rules and procedures most likely to ensure the achievement of the key objectives of the PFM system. This approach provides the conceptual basis for the Public Expenditure & Financial Accountability (PEFA) assessment framework, developed by the IMF and the World Bank in conjunction with the EU, DFID and other bilateral donors. It provides a set of 31 high-level indicators, by which to measure the performance of a PFM system. Since 2005, some 300 PEFA assessments have been undertaken of national and sub-national PFM systems in over 100 countries.



From manual system to real-time online system; the PFM in Bhutan has come a long way. Since its initial PEFA assessment in 2002, Bhutan has made lot of reforms to ensure allocated resources are used efficiently

# The PFM project

The PFM Project was established under the PFM-MDF, a joint program of the World Bank, the European Union and the Australian Development Agency. In September 2017, the RGoB and the World Bank signed a US\$ 4 million grant to help Bhutan manage public funds more effectively and improve procurement and budgetary systems. The overarching goal of the PFM Project is to strengthen public services delivery and enhance governance.

## Specific outcomes achieved under the PFM project:

- ✓ Enactment of GST Law in the country
- ✓ Launch of the country-wise electronic payment systems also known as ePEMS. The electronic payment system is being used for all payments. Incidentally, ePEMS is very successfully used for Druk Gyalpo's Relief Kidu for COVID-19.
- ✓ The Annual Budget Report now has an improved section on Gender Budget

## Advantages for the citizens in understanding PFM

- ✓ Economy and efficiency in government's operations – so that there are additional resources for services such as education and health; and infrastructure such as roads.
- ✓ Transparency – so that citizens know what, where and how their funds are being spent and upon what.
- ✓ E-Payments for vendors and citizens leading to easy access of pension payments, social security payments.



## What is known about how best to strengthen PFM systems?

Recent research and evaluation suggests that three critical ingredients are needed for successful PFM reform.

**Leadership:** A strong political and technical commitment, clear communication and coordination of reform, and a widening group of reform leaders who manage fears, expectations and differences of opinion

**Policy space for developing appropriate reforms:** A thorough understanding of the context, a focus on the functionality of the system and not just the form, and teams and organizations that experiment and take risks, interrogating both the problem and the proposed solutions

**Adaptive, iterative and inclusive processes:** Monitoring, learning and adaptation are key.

Courtesy: [www.gsdrc.org](http://www.gsdrc.org)

## Box story

### PFM – blessing in convenience

As all government payments are to be processed electronically through e-PEMS or Electronic Public Expenditure Management System. People can now expect a faster turnaround time, and no physical trips to the capital city.

“Due to check payments not only our working capital is blocked, but we are also spending money on employing payment collectors. This severely impacts our margins forcing us at times to quote higher than what we normally have done.” Pema (an SME entrepreneur)

Launched in July 2019, e-PEMS is the product of collaboration with the Bank of Bhutan and the Royal Monetary Authority. e-PEMS is very successfully used for Druk Gyalpo's Relief Kidu for COVID-19

“I felt reassured with His Majesty's Relief Kidu. One thing has become clear to me that no matter how worse the situation turns out to be, I can always count on His Majesty's compassion.”  
-- Bhumika Monger of Lhamoidzingkha

“For the Relief Kidu during this most difficult time of my life, whatever I do, will not be able to repay the debt I owe my King, and the country for the free education, healthcare.”  
-- Tashi, 55, from Pema Gatshel

**References:** *Bhutan Public Financial Management Accountability Assessment (June 2010)*; *Public Financial Management Performance Report based on Public Expenditure and Financial Accountability Methodology (PEFA) 2016 Framework, MoF, RGoB; BusinessBhutan-October 5, 2017; Kuenselonline-September 25, 2017*

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Co-Authored by Sonam Tobgyel, Chief Accounts Officer, DPA, Ministry of Finance. For more information, please visit [www.mof.gov.bt](http://www.mof.gov.bt)



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Royal Government of Bhutan  
Ministry of Economic Affairs  
DEPARTMENT OF RENEWABLE ENERGY

*“towards a green and self reliant economy”*



Filling in for divine light —

# The DRE mission to electrify Aja Ney community



If Guru Rinpoche was walking among us, then he'd graciously and most definitely attend one of those high-level policy discussions that decide the Dos and Don'ts of developmental activities. And particularly it would be the one concerning Aja Ney, a place he blessed and made most sacred. The big reason behind that would be because, the sacred pilgrimage site – with its nearly 40 households – is found wanting of the most basic of amenities like electricity for one — to enable access to proper efficient & reliable lighting & cooking — to be exact. But given that the place He blessed is inside the Bumdeling Wildlife Sanctuary (BWS), He might have to enact nothing less than a divinely-powered intervention to relax the currently prevailing, and very stringent conservation laws backed by the Constitution of the Kingdom of Bhutan further empowered by a host of other acts and regulations.



## Challenge accepted, says DRE. Still, it's not without challenges

The lingering situation for now is -- prayers in their own good time, real-time operations in their proper and strategically placed space and time. But meanwhile, the Department of Renewable Energy (DRE) has decided to literally take the light to the Aja Ney community. It is not without challenges though.

### Location, location, location

Blessed by Guru Rinpoche, Aja-Ney is one of the most sacred pilgrimage sites. It is located in Shermuhung gewog of Mongar dzongkhag. However, its location also happens to be within the core zone of the Bumdeling Wildlife Sanctuary (BWS), and therein lies the sticky point of contention. BWS is one of the four wildlife sanctuaries among the 10 Protected Areas (PAs) of Bhutan. The PAs of Bhutan comprise five National Parks, four Wildlife Sanctuaries, one Strict Nature Reserve and the Biological Corridors.

Developmental activity if at all sanctioned within the confines of the preserve needs to toe a conservation line that is strictest in the true sense of the word. The fact that the nearest road leading to Aja Ney terminates at Khadrak, a place nearly 20 kms from the Shermuhung gewog center is a dose of how the stringent EIAs or Environment Impact Assessments have kept at bay the many planned activities which didn't make the checklist. It takes more than seven hours on foot from Khadrak to reach the Aja community.

### The Residents and their Accommodations

The Aja community comprises four Lhakhangs, 19 Tshamkhangs, eight Huts, two Guest Houses, a park office and a Kitchen bringing the number of households to 34. These are all permanently settled households and reside at Aja throughout the year. They grow potatoes, beans, and occasionally harvests *star anise* which is a medical herb. People also rear cattle which supports their livelihood. The community has basic amenities like recently connected mobile network and stable drinking water supply. Aja village is currently being provided with standalone Solar Home Lighting systems (SHL) which is adequate enough for lighting and mobile charging purposes only. Therefore, for cooking and heating, most still rely on the use of firewood while few who can afford it, use LPG. This is probably the part where DRE entered; with a splash.

### The answer upfront: Development of a decentralized Solar PV Farm at Aja Community

The works for the installation of a decentralized battery powered Solar PV plant is in an advanced stage which when completed will provide Aja Ney community with resilient and reliable power supply. Field surveys are already completed and technical designs are being currently undertaken. In the first phase, a 50 kW plant shall be developed at Nimathang which is the main community hub for which an estimated budget of Nu 12.335 million (Ngultrum twelve point three five Million) has to be mobilized. Based on the success and the experience from this, another two smaller Solar PV plants shall be also developed at places called Pema Yang Dzong and Dungkarcholing to spread the benefits of the Solar Plants to remaining households in Aja. One might say for both parties (Aja Ney and its residents as the receiving entity; and DRE as the renewable energy-themed, and –structured organization), it is a fated point to end up at.

The Aja Ney is a sacred pilgrimage site blessed by Guru Rinpoche. Hundreds of pilgrims across the country visit the site annually to worship, to offer prayers. Among the several spots, the most sacred and popular site is a small cave on the bank of Aja Chhu where Guru Rinpoche meditated for three months. The rock that bears 100 sacred syllables 'Aa' is said to have been imprinted in the cave after Guru completed his meditation.

The entire pilgrimage to Aja Ney takes at least a week to complete. The sacred site encompasses a host of religious sites and symbols. It includes Guru's foot and body prints, Khando Drowa Zangmo's footprint, 108 retreat caves of Guru Rinpoche and the footprint of Lam Karma Jamyang who discovered the hidden sacred site among others. The Aja Ney also has a Menchu. People soak in the Menchu as it is believed it can cure 18 different diseases such as tuberculosis, body aches, ulcer and whooping cough among others. People can also see a pair of Jachungs. The belief is, the wings of Jachungs contain or carry 108 butter lamps, 108 lakes and 108 Tsha Tshas, and a pair of golden fishes.

Aai chhu, a stream, is believed to have come into existence when Guru implanted his walking stick in the rocky cliff at Tshekor. It forms a pool at the rock basin below where the Guru is believed to have taken bath. A bath in the pool is believed to purify a person.

About 800 pilgrims across the country visit Aja Ney annually. In addition, people from as far as Arunachal Pradesh in India visit to seek blessings and to offer their prayers.

Aja Ney



Rubesa windmill farm





## Beginning, middle, and the solution

### In the beginning

Things didn't always lead with the current renewable/alternative approach. The on-grid rural electrification program for the Aja Nye was planned in the 11th Five Year Plan (FYP). However, during the survey, it was assessed that the entire transmission line for taking power to Aja-Ney needed to be routed through a core zone of the BWS. In connection to this, the 6th Technical Advisory Committee of the Department of Forest and Park Services (DoFPS) in December 2017, issued forestry clearance conditional upon the use of "aerial bundle cable and no felling of tree from Right of Way clearing" if DRE was to construct the transmission line to Aja.

### In the middle

The initiative hit a wall when it found no way around since it was technically infeasible to construct transmission lines without felling trees. The DRE and the Bhutan Power Corporation (BPC) in June 2018, requested DoFPS to revisit these specific terms and conditions. The request was not approved because the project area falls through the core zone of the BWS where such activities are strictly prohibited.

And alas, the Aja community was left out from the grid electrification list during the 12th FYP period as well.

### In the present

For the foreseeable future, the on-grid electrification of Aja Community remains far from happening. And those are not lines one can "hopefully" read in between. It's a nation dedicated to conservation and its established rules thereof; and if it has come along for more than a century staying true to them, then it will definitely not do an about-face in policy, and certainly not overnight.

### Moving forward

In exploring alternative means, the DRE is currently working in collaboration with the agencies like Bhutan Ecological Society (BES), Bhutan for Life (BFL) and others to explore mobilizing funds and technical expertise for developing the proposed decentralized Solar PV farm to electrify Aja community. Efforts are also being made to access funding support from other windows like the Small Grants Programme (SGP) of the UNDP. The technical proposal is currently being reviewed by the collaborating partners

### Good news for Aja electrification

The DRE has secured the statutory clearances at the Gewog level. The installation of solar PV plants kicks off once the funds are secured.

### How the Solar PV Plant fares amid Aja Ney's prevailing conditions

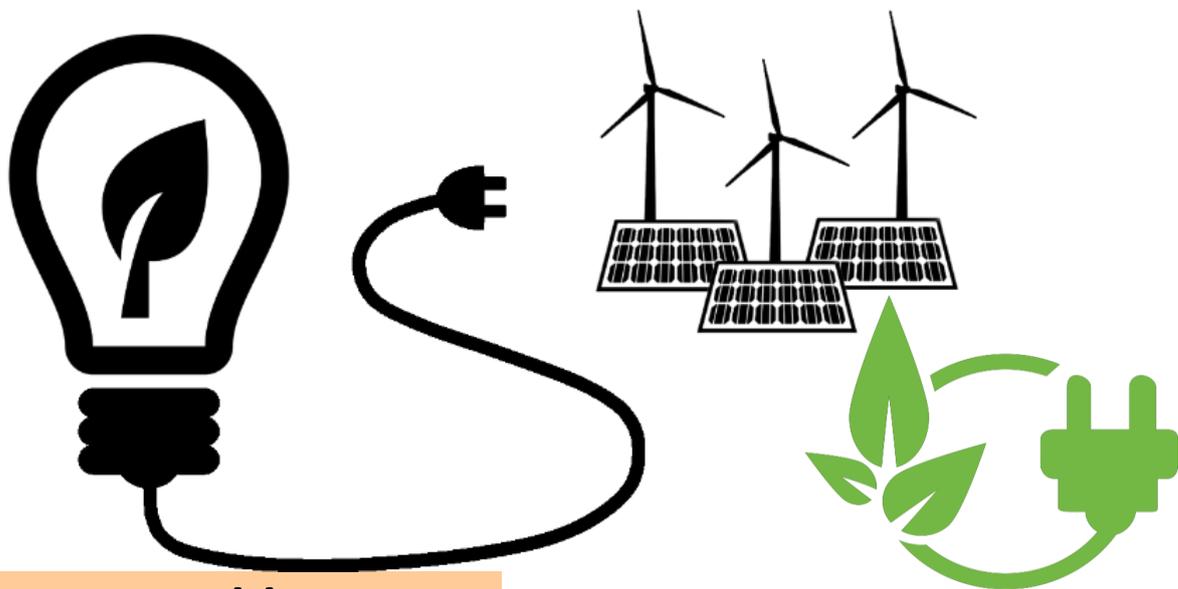
The Aja Community is situated at an elevation of 2800m above sea level with 27.30060 N latitude and 91.20080 E longitude coordinates. The area is perfect south facing and receives a good amount of sunshine throughout the year. The temperature varies from 25 degree Celsius in the summer to -5 degree Celsius in winter. The community is surrounded by lush green vegetation and remains cold for the majority of the months in a year. Therefore, the expected load demand for the Aja community is going to surge from September till March and maximum demand will be during the peak winter months and lowest demand during mild & brief summer months.

Energy demands can be expected to rise for additional demands in winter months which is when the Aja Eco-tourism operates and an increased number of people visit the place.

### The technicality of 50kW

The load/energy demand per household at Aja Community is calculated and allotted with 2.785 kW considering the basic electrical appliances each household would use in a day. The current energy consumption trend in the similar communities across the country shows that, each household hardly uses 50% of the allotted 2kW power supply (current rural electrification per household power allocation practice). Thus, considering this energy consumption portfolio and taking into account calculated energy demand, each household is being designed to be allotted with 2.785 kW power supply. Consequently, the total load for the community is calculated at 50kW for phase one which covers 21 households.

Therefore, the 95kW solar PV system is being considered to provide Aja Ney community with 'resilient and reliable' power supply.



## Putting renewable energy forward

First impressions are; 'Conservation laws being too tight about constructions for on-grid electricity, Aja Ney settles for solar-powered off-grid electricity.' But, things are a lot more encompassing than that.

### Bigger picture

Bhutan is seemingly 'energy-rich,' but there is also the part where the country imports energy particularly during the winters. That would be the post-monsoon time when rivers are not as abundantly flowing as they are during the monsoons. On that note, studies have recommended exploring other sources of energy. Long story short; the message is that it is not wise to depend on just one source of energy. In that urgent sense a need for diversification is high on the cards to complement energy from the hydropower sector with renewable sources such as wind energy and solar energy.

With times, technologies have advanced and with that the cost of providing solar energy has come down. Cost of electricity from solar and wind is coming down. This is happening globally, and it makes harnessing renewable energies economically feasible. There are additional benefits to pursuing the alternative methods. Renewable energy projects would need less maintenance and are environmentally friendlier. Pursuing renewable energy also signals positivity for the long haul. Through renewable energy there is huge potential for excess electricity which could reduce dependence on the neighboring countries.

### The 'DREnewable' energy ventures

A 180 kilowatt (kw) solar power plant along with the 600KW wind farm at Rubesa in Wangdue will be in operation in the coming months. This DRE project aims to demonstrate the techno-economic feasibility of renewable energy technologies in the country. Needless to say; it also means bringing huge changes in the socioeconomic development of the country. At present, solar energy is harnessed on a small scale targeting households and villages that are off-grid, like Aja Ney, and they are provided with solar panels. Experts say these operations are also an opportunity to gain practical experiences to plan, construct and operate solar farms.

The Windmill farm at Rubesa was first of its kind in Bhutan which proved that harnessing wind energy was feasible in Bhutan. Plans now are to demonstrate that harnessing solar energy on a large scale would be feasible.

The aforementioned 180 kW solar power plant; it will generate 263,000 units of energy per annum and stands to benefit 90 households. Energy generated by it will be transmitted to the national grid from where, the households connected by transmission line will be able to harness the energy.

### The renewable future

Installation of three major renewable power plants — a 30-megawatt (mw) solar power plant at Shingkar, Bumthang; a 17mw at Sephu, Wangdue; and a 23mw wind power plant at Gaselo, Wangdue are currently on the cards. In connection to that talks are on with the Asian Development Bank (ADB).



# Toeing the cessation line: On the warring path against Tobacco



Something in the skies of a harmonious Bhutan is enveloped in smokes—tobacco of all kinds to be exact—and truth be told, it's lesser in the skies than it is among its people, especially the youth. The tobacco invasion has steadily been on the rise. The nation over the years witnessed continual rise of tobacco use and its adverse impact on people's health and eventually the nation's health. While battles continue to be won on various fronts the war rages on as tobacco continues to generate news (typically not in a good way) and statistics (ceaselessly in a big way).

And since tobacco hasn't taken a day off in ravaging country and country folks, concerned agencies continue to engage the attacks with methods old and new to mitigate its toxic aftereffects on nation and people. The two-pronged strategy of Demand Reduction and Supply Reduction have long been the tenacious defence and offense executed by the Bhutan Narcotics Control Authority (BNCA) — nation's leading narcotics control authority.



Tobacco is the single greatest preventable cause of death in the world today. It kills 5.4 million people in a year. If we don't do anything to check the number of tobacco users, the mortality will increase to more than 8 million by 2030. In industrialized countries, where smoking has been common for decades, it is estimated to cause over 90% of lung cancer among men and about 70% of lung cancer among women, and about 22% of all cardiovascular disease. There is also profound implication on the quality of life of individuals, families, communities and country at large due to diseases caused by tobacco use as it has direct impact on socio-economic development.

The findings of the Bhutan STEPS Survey 2019 indicate —despite numerous laws and regulations in place, one out of five Bhutanese use some kind of tobacco products while two out of five Bhutanese are alcohol drinkers.

## Sympathy for the users

The nation's narcotics-controlling measures is moving another strategic front in addition to the two aforementioned — the tobacco cessation program. Roping in considerations for those at the heart of the issue—the users—the tobacco cessation program is something of a strategically equipped but at the same time a sympathetic/an understanding approach that treats tobacco use and addiction as a scourge of an otherwise harmoniously operating society. It is particularly focused on hitting at the core elements of individuals wishing to drop the habit of tobacco consumption altogether and get a gracious bailout from the health hazardous arrangement they are seemingly trapped in with tobacco.

To that end there is a **Tobacco Cessation Guideline** developed in response to Tobacco Control Act 2010 of the Kingdom of Bhutan which imposes on Tobacco Control office the obligation to design and implement effective programs aimed at providing tobacco cessation services in all health-care facilities across the country. It was also developed in response to overwhelming number of people using tobacco who wants tobacco cessation support and to help tobacco users to quit. As per the Bhutan STEPS Survey Report, 2019, 75.3% of smokers among the current users of tobacco tried to stop smoking and only 20.9% of those who visited a health care provider in last 12 months were advised to quit smoking by a doctor or health worker.

Bhutan has set a target to reduce by 30% the prevalence of current tobacco use in persons aged 15 years and above by 2025. The national multisector action plan (2015-2020) for non-communicable diseases (NCDs) and Tobacco Control Amendment Act 2014 gives the necessary impetus in its endeavour to curtail the use of tobacco.

### **Framework Convention on Tobacco Control (FCTC):**

The nation's move toward tobacco cessation is also in line with its commitment as a party to the FCTC. Bhutan adopted the MPOWER policy packages to reduce the use of tobacco. The WHO introduced MPOWER in 2008 to assist countries in fulfilling their FCTC obligations. MPOWER (Monitor tobacco use and prevention policies; Protect people from tobacco smoke; Offer help to quit tobacco use; Warn about the dangers of tobacco; Enforce bans on tobacco advertising, promotion and sponsorship; Raise taxes on tobacco) is a technical package of six evidence-based tobacco control measures that are proven to reduce tobacco use and save lives.



The Bhutan Global Youth Tobacco Survey (GYTS) 2019 number of smokers in the age group of students and school-going children is observed to be significantly high. This is a cause for concern in a country like Bhutan. National level policies framed and implemented have been acting on it to address this and various aspects of impact tobacco has on people's health, and in different ways on the country's economy too.

Despite the blanket ban on tobacco products, the percentage of current tobacco users who bought cigarettes or other tobacco products from within Bhutan was 85%. Bhutan must ratify the WHO FCTC Protocol to Eliminate Illicit Trade in Tobacco Products at the earliest.



## Take heed of the findings

More than 8 out of 10 current smokers wanted to stop smoking right away and around the same number had tried to quit smoking in the preceding 12 months. Similarly, around 9 out of 10 (87.1%) current smokeless tobacco users now wanted to stop using these products and 83% of students who currently consume smokeless tobacco had actually tried to stop using it in the preceding 12 months.

Overall, 87.7% of current tobacco smokers and 84.9% of current smokeless tobacco users thought that they would be able to stop using these products if they wanted to. Among the current tobacco smokers, 51.2% showed signs of smoking dependence.

### **The Bhutan Global Youth Tobacco Survey (GYTS) 2019**

**reported:** Over the years, there has been a strong and consistent need for quality services for tobacco cessation for current tobacco users/cigarette smokers. Almost 8 to 9 out of every 10 smokers – both girls and boys – would potentially benefit from such services. The need for quality tobacco cessation services, specifically targeting the youth and preferably in school settings, is further underscored by the fact that a huge proportion of current tobacco smokers and smokeless tobacco users wrongly think that they would be able to stop using these products if they wanted to.

Majority of students who currently use tobacco are interested in quitting. In fact, the trend analysis suggests that there has always been a strong and consistent need for quality services for tobacco cessation for current

tobacco/cigarette smokers in Bhutan. Almost 8 to 9 smokers out of every 10, girls and boys alike, would potentially benefit from such services.

**Talking statistics:** More than 8 in 10 (80.7%) current tobacco smokers had tried to stop smoking in the preceding 12 months. More than 8 in 10 (84.1%) current tobacco smokers wanted to stop smoking now. More than 8 in 10 (83.0%) students who currently consumed smokeless tobacco had tried to stop using it in the preceding 12 months. Around 9 in 10 (87.1%) current smokeless tobacco users wanted to stop using these products immediately. Among the current tobacco smokers, 51.2% showed signs of smoking dependence. The figure was slightly higher in the case of girls (52.3%) than boys (51.1%). More than 8 in 10 (80.7%) students who currently smoked tobacco had tried to stop smoking in the preceding 12 months. Likewise, more than 8 in 10 (84.1%) current tobacco smokers wanted to stop smoking now. Notably, as many as 87.7% of tobacco smokers thought that they would be able to stop smoking if they wanted to.

Many of the students who participated in the GYTS 2019 survey wanted to quit tobacco use. More than 8 in 10 (83.0%) students who currently consumed smokeless tobacco had tried to stop using it in the preceding 12 months. Also, around 9 in 10 (87.1%) of them wanted to stop using these products now. It is to be noted that as many as 84.9% of these students thought that they would be able to stop using smokeless tobacco if they wanted to.

## Tobacco cessation — measure for measure

Nearly one-and-a-half decades after Bhutan ratified the WHO FCTC on 23 August 2004 and almost a decade since the country completely prohibited the cultivation, harvesting, manufacture, supply, distribution and sale of tobacco products through the Tobacco Control Act of Bhutan 2010, the prevalence of tobacco use among the youth remains high across the country.

As per the GYTS 2019: Tobacco use remains high among the youth in Bhutan, with more than one out of five students (22.2%) currently using tobacco products. Current tobacco use was higher among boys (31.2%) than girls (13.5%). In all, 17.3% of the students were current tobacco smokers. The prevalence of current cigarette smoking was 14.7%.

The evidence emerging from the GYTS 2019 suggests initiation of tobacco use begins at an early age in most cases. It was found more than 4 out of 10 (44.3%) initiated smoking at the age of 12–13 years. On the up side, it is encouraging that about 7 in 10 students (69.5%) had been taught in school about the dangers of tobacco use in the

preceding 12 months. Still, a more holistic and institutionalized approach, encompassing both supply- and demand-side issues (described in the preceding section of this chapter), may be the need of the hour.

Treatment guidelines for tobacco dependence have been framed in Bhutan. A national toll-free quit line is available and will be included in all tobacco control campaigns. Tobacco cessation services at the population level, particularly those aimed at the youth, need to be strengthened across the country. Nicotine replacement therapy would be made available in the public health system. A national strategy for tobacco cessation would be put in place.

**Prepping the schools:** An area to look into is the schools where school health coordinators and teachers are not adequately trained in tobacco cessation counselling and related aspects. Also, there is a dearth of quality cessation services at the population level that are specifically targeted at the youth. The provision of comprehensive quality cessation services for smokers as well as

smokeless tobacco users, preferably in school settings is marked be taken up on priority.

**Prioritize availability and implementation of efficient and quality tobacco cessation services:** As highlighted by the GYTS 2019, more than 8 out of 10 of the youth would be potentially benefited by quality tobacco cessation services for smokeless tobacco users and tobacco smokers.

Tobacco cessation services, particularly those aimed at the youth at the population level, are identified to be strengthened across Bhutan. For instance, Nicotine replacement therapy should be made available in the public health system and a national tobacco cessation strategy needs to be in place. The national toll-free quit line number should be included in all tobacco control campaigns. Emerging technologies such as MTOBACCO Cessation should be leveraged. Quality counselling services and brief advice should be made available in school settings by training school health counsellors and integrating the services with primary health care and the implementation of the WHO PEN package.

**Accelerate implementation of efficient and quality tobacco cessation services:** Tobacco cessation services, particularly those aimed at the youth, need to be strengthened across Bhutan.

**Maximize implementation of tobacco advertising, promotion and sponsorship (TAPS) ban:** Robust implementation of tobacco control laws pertaining to the TAPS ban should be prioritized. There ought to be zero tolerance to any type of tobacco promotion, direct or indirect, by tobacco industry representatives. A ban on brand-stretching would be useful in maximizing the level of implementation of the TAPS ban, leading to a better MPOWER score for the country.

**Renew efforts to communicate tobacco health risks to youth:** It is imperative to conduct and sustain effective national campaigns on tobacco control through the mass media, primarily aimed at youth.

**Involve multiple stakeholders:** Engage all relevant stakeholders in framing and implementing effective legislative, policy, regulatory and administrative tobacco control measures.

**References:** *Tobacco Cessation Guideline, DoPH, MoH; Bhutan STEPS Survey 2019, DoPH, MoH; Global Youth Tobacco Survey (GYTS), Bhutan, 2019; Annual Health Bulletin, MoH*



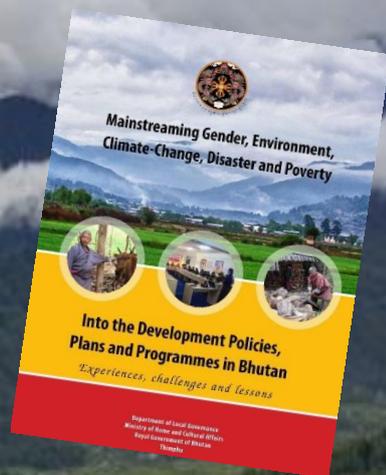
Each year, tobacco use is responsible for approximately 8 million deaths worldwide. Of these deaths, persons who use tobacco account for 7 million and non-smokers exposed to SHS account for 1.2 million. The situation is exacerbated by the marked rate of increase in the number of youth initiated to tobacco use, and the introduction of new tobacco products by the tobacco industry, which extensively markets its products with the aim of reaching the youth.

With the continuing decline in tobacco use in high-income countries, low- and middle-income countries (LMIC) have become a prime market for the tobacco industry because of their economic and demographic contexts. To put things in perspective, approximately 80% of the 1.1 billion persons who smoke tobacco worldwide reside in LMICs.

In the South-East Asia Region of WHO, nearly 1.6 million persons die every year because of the consumption of tobacco products. There are about 230 million tobacco smokers in the Region, amounting to more than one-fifth (around 21%) of all smokers worldwide. Besides, the Region has by far the largest number of adult smokeless tobacco users (around 248 million), representing about 82% of all users globally. Significantly, it has the largest number of tobacco users of 13–15 years of age (14.8 million, or around 34% of the global total). In absolute terms, it has the largest number of child cigarette smokers (6.4 million, or around 27% of the global total). Also, the Region accounts for nearly 62% of all smokeless tobacco users of the age of 13–15 years in the world.

✻ Happiness article, BNCA. For more information please visit [www.bnca.gov.bt](http://www.bnca.gov.bt) The BNCA functions as the secretariat to the Narcotic Control Board and is the nodal agency of the Government for all matters related to narcotic drugs, psychotropic substances and substance abuse.

# GECDP MAINSTREAMING: Advantages of including the overlooked, and almost forgotten



Development is a process, singularly focused on progress; progress that can be marked with significant economic achievements. Driven by that standalone motive; such things as Gender, Environment, Climate change, Disaster management, Poverty (GECDP) barely makes the significant markers for consideration on the planning table. It has probably been the same for Bhutan, and that's why it took swift action – studied, carefully planned and mainstreamed GECDP into its major plans and policies.

**Gender:** Addressing gender imbalance and thereby the move to achieve gender balance is an area that has continued to receive attention from various concerned agencies of the country. By mainstreaming it into the formulated plans and policies it receives the highly powered and much-required boost to make the already instituted programs more impactful.

**Environment:** Bhutan is an environmentally rich country. In its pursuit of development in the last five decades plus, all aspects of various planned activities are pre-conditioned for environmental conservation wherein any one that doesn't make the cut with respective EIAs or Environmental Impact Assessments doesn't get to move forward. To this effect, Bhutan continuously strives to uphold the national aspiration of an integrated sustainable development through

integration of cross cutting development concerns into the development mainstream.

**Climate change:** As far as pointing fingers go, Climate change has been the inconvenience of our own making; us earthlings. And being the unavoidable, massively sized global issue, Bhutan is equally affected by its consistently inconsistent agents of unpredictable changes. As a result of increasing human development activities, climate-change effects have emerged as a substantial threat to the local economy.

**Disaster management:** Disaster, natural in nature, they have pretty much been the norm anywhere with Mother Nature dishing out 'a one and a two' here and there every now and then. But with the aforementioned 'Climate Change' forcefully asserting

itself as a chief player, the tone has changed to disasters being dangerously unpredictable.

**Poverty:** Majority of the country's population is rural-based. They heavily depend on environment and its natural assets for their livelihoods. Degradation of ecosystem goods and services for socio-economic development activities reduces access for the rural poor to the natural resources resulting in exacerbation of poverty incidence, while compromising the natural resource capital for the national economic development at the same time. Poverty alleviation is therefore a key lookout area in the advancement of the country's plans and policies. Mainstreaming it into the procedure does not become the magic wand which waves away all problems, but it receives a priority seat at the decision table and thereby all the advantages of applied research, resources, manpower and fund to implement various activities.



## GECDP Mainstreaming – the back story

This journey of mainstreaming GECDP began in 2006 when the Guidelines for the 10th Five Year Plan identified “Environment as a cross-cutting issue that intimately intertwined with poverty reduction”. Since then, many initiatives such as capacity development to mainstream environment, climate change and poverty into policies, plans and programmes have been undertaken under various projects and programmes across all sectors of development. The importance of mainstreaming GECDP gained further momentum with the initiation of the National GECDP Mainstreaming Reference Group (MRG) formation. The MRG *would* strengthen the integration of all crosscutting issues into Government's decision-making processes and development policies, plans, and programmes. The MRG comprises members from all development sectors with diverse backgrounds, namely planners, environment specialists, policy analysts, local development/governance specialists and trainers from the training institutes and colleges, among others.



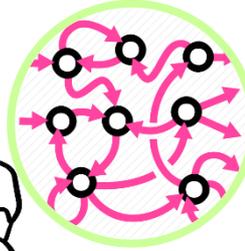
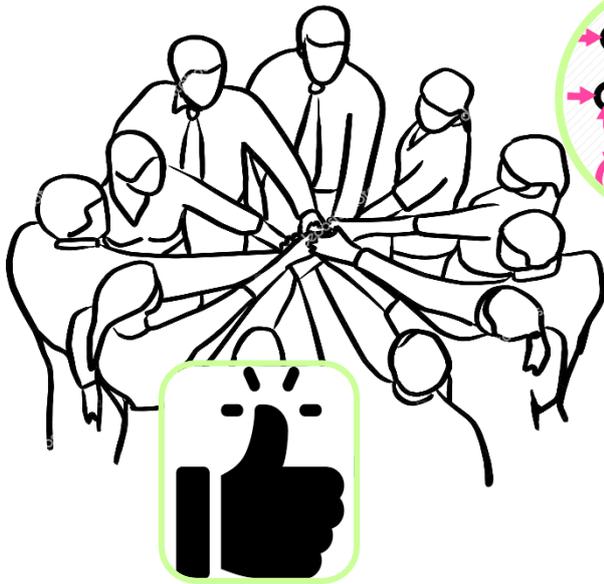
## Mainstreaming GECDP

In the Bhutan context, GECDP Mainstreaming is defined as “integrating GECDP considerations, including both opportunities and risks, into all processes and activities in the society, from the overall policy and strategic level to our own daily actions.”

GECDP Mainstreaming received special focus and attention within the 11th Five-Year Plan's overall development objective of attaining Self-reliance and Inclusive Green Socio-economic Development. Mainstreaming GECDP into the development policies, plans and programs is an accentuated effort at all stages of development process at all levels of the Government.

Mainstreaming GECDP ensures incorporation of the inclusiveness and integration of holistic development elements. The employed means by which GECDP Mainstreaming did this was by needing all the new development policies of all development sectors to follow the Government's Protocol for Policy Formulation. This protocol required every development policy to go through the GNH Policy Screening Tool and get a minimum score for Government's endorsement. Similarly, the Local Development Planning Manual was revised to incorporate the GNH checks into the planning and implementation of development activities at the local level.

Various capacity-building initiatives, especially for key development actors at the local level also carries out GECDP mainstreaming. This proves highly instrumental since majority of the country's population is still rural-based depending largely on environment and natural assets for their livelihoods. Various development activities aimed at poverty alleviation are implemented with substantial cost to environment, making the environment more vulnerable to degradation.



## GECDP — Everything is linked

**The causes natural, and otherwise:** More than 60 percent of Bhutanese live in rural parts of the country. They depend on an integrated farming system of crop production, livestock rearing, and the use of natural resources for their livelihood. These rural agriculture-based communities mostly practice subsistence farming, and they are increasingly affected by the impacts of climate change and environmental degradation. The impacts are visible in crop losses resulting from unpredictable weather conditions in the form of windstorm, early or late frost, late monsoon, flash floods and the spate of natural disasters. Adding on to that is the issue of crop and livestock depredation by wildlife.

## The goodness of GECDP Mainstreaming

The benefits of GECDP mainstreaming in policy formulation, and planning and budgeting of development manifested in the overall goal of 11th Five Year Plan which focused on 'Self Reliance and Inclusive, Green Socio-economic Development'. Highly in sync with the objective of GECDP Mainstreaming, this goal emphasized development and economic growth along a GNH-based middle path focused on real life outcomes building on strategies that integrate gender, tradition and culture, pro-poor, low carbon, eco-friendly, disaster and climate adaptation and mitigation, energy and cost efficient modalities and strategies.

Considering, Bhutan's limited natural resources and economic opportunities, and a lack of advanced technology, mainstreaming GECDP into policies, plans and programmes at all levels of Government's decision-making processes (central, local and community) has acquired greater significance for balanced socioeconomic development. GECDP linkages are applied at various development stages beginning from the conception of policy right down to its implementation at the local community level. This is done by searching for strategic entry points at different stages of policy and planning processes, which are referred to as 'windows of opportunity' or the decision window. For effective GECDP linkages, within each window, the different players are identified along with "their skill set, and the nature of the intervention required to utilize the opportunity within the window".

In order to make mainstreaming more pragmatic in the 11th FYP and to realize its objective of sustainable and holistic development, the plan preparation guidelines includes a separate provisions requiring all central and local agencies to formulate GECDP integrated development plans and programmes.

**An unfriendly but welcoming geography:** Only 7.7% of the country's total land area (38,394 Sq. km) is cultivable, but that hasn't stopped it from engaging more than 50% of the total labour force in Bhutan. The contribution of agriculture to total Gross Domestic Product (GDP) is therefore significant. The RNR sector in that manner is also a major contributor to the national GDP.

**How one links to another:** Poverty is closely interlinked with the environment since majority of Bhutan's rural population depend on environmental resources and other natural assets for their livelihoods. Bhutan's poor, particularly women and children, are heavily affected by environmental health problems such as lack of safe drinking water and poor sanitation, indoor air pollution and exposure to vector borne diseases. The poor are also the most vulnerable to natural disasters caused by mismanagement of natural resources. Some of the key crosscutting issues that affect the poor are: Land Use, Land Use Change and Forestry (LUCF), Wildlife Damage to Crops and Livestock, Deforestation due to Timber and Fuel wood use, Exploitation of Natural Resources.

**Laws – truly the foundation of peace:** The existing policy guidelines, acts and by-laws clearly demonstrate the importance of GECDP linkages in the policies, plans, programmes and development activities. They support and create enabling environment for GECDP linkages. Some of the policy guidelines, acts and by-laws are: National Environment Protection Act of Bhutan, 2007; Waste Prevention and Management Act 2009; Forest and Nature Conservation Act of Bhutan 1995, Disaster Management Act of Bhutan 2013, Water Act of Bhutan 2011, The Local Government Act of Bhutan, 2009;

Economic Development Policy 2010; Cottage, Small and Medium Industries Policy 2012; Renewable Energy Policy; Human-wildlife conflict Management Strategy 2008.

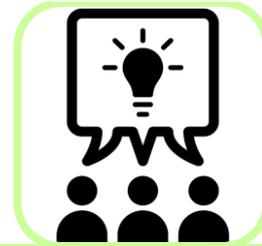
Bhutan's existing laws, policies and acts mandate the government to pursue sustainable development. The Constitution of the country, particularly requires the government to 'secure ecologically balanced sustainable development while promoting justifiable economic and social development.

**GECDP in sustainable development:** Sustainable development requires that environment and other cross-cutting issues are integrated into all policy making and planning processes at all levels of government. Bhutan's approach to holistic development is guided by the country's development philosophy of Gross National Happiness (GNH).

The Government, with the coordination of MRG developed the Framework to Mainstream Environment, Climate Change and Poverty (ECP) concerns and other cross cutting issues into the 11th FYP. The ECP mainstreaming framework necessitated all central and local Government agencies to formulate ECP-integrated development plans and programs. The Framework was also geared to achieve a carbon neutral development, one of the National Key Results Areas of the 11th FYP.

**Policy level integration of GECDP:** At the policy level, GECDP mainstreaming is implemented through the mandatory use of the policy formulation protocol and screening of the proposed policies through the Policy Screening Tool. With the benefit of ensuring a coordinated and informed policy making, the policy screening protocol ensures that GNH objectives and inclusiveness are integrated within each policy. In particular, the policy protocol also specifies the need to effectively integrate GECDP concerns and cross cutting issues from the initial phase of a policy's formulation. The GNHC has also introduced application tools such as environment overview (EO) and Strategic Environment Assessment (SEA) for rapid assessment of policies in the draft stage of development.

**Project level integrations of GECDP:** The mainstreaming of GECDP and cross-cutting themes has been successfully integrated into various projects. This was possible through capacity building of key professionals across sectors undertaken by the MRG. The mainstreaming initiative also resulted in specific projects that imbibed the overarching themes of mainstreaming, leading to more sustainable and holistic approach to project implementation. As a result, projects have reported greater level of success in achieving targets and goals.



## The benefit of hindsight – Lessons learnt from the GECDP mainstreaming activities

While the intentions are without a doubt noble, and wholesomely charted, the wisdom from the past can still be drawn in the present. Likewise, the mile that has been travelled in GECDP Mainstreaming showcases its earned wisdom.

It is found advocacy and training of the stakeholders at all levels should be conducted continuously so that people fully understand its benefits. This is in reflection to the conditional fact that GECDP mainstreaming requires a change in the mindset of the people. Consequently, stakeholders would be inspired to participate in GECDP mainstreaming whole-heartedly.

Teaching people with the objective that they know something; it would lead to achieving something to an extent. On the other hand, doing the same considering traditional and local beliefs would greatly connect not just heads but hearts. This nugget of wisdom applies to mainstreaming as well. In that, the ability to connect GECDP and local beliefs will make GECDP mainstreaming easy, most definitely, but doubly effective at the same time.

**References:** *Mainstreaming GECDP into the development policies, plans and programmes in Bhutan report, DLG, MoHCA.*

✉ *Happiness article, Department of Local Governance, Ministry of Home and Cultural Affairs. For more information, please visit [www.mohca.gov.bt](http://www.mohca.gov.bt).*



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DEPARTMENT OF TRADE  
Ministry of Economic Affairs  
Royal Government of Bhutan  
Thimphu



# Enhanced Integrated Framework Initiative in Bhutan

## EIF at the Global level



The Enhanced Integrated Framework (EIF) is a multi-donor Aid for Trade (Aft) programme specifically designed for the Least Developed Countries (LDCs). The programme supports LDCs to be more active players in the global trading system by addressing their supply-side constraints to trade. The programme aims towards a wider goal of promoting economic growth and sustainable development and helping to lift more people out of poverty in LDCs.

The programme also creates a genuine partnership among all EIF stakeholders to show results on the ground. The stakeholders mainly include the following;

1. Donors (24 countries)
2. Eight core partner agencies (World Tourism Organization (UNWTO), United Nations Industrial Development Organization (UNIDO), World Trade Organization (WTO), World Bank,

United Nations Development Programme (UNDP), United Nations Conference on Trade and Development (UNCTAD), International Trade Centre (ITC), International Monetary Fund (IMF)).

3. EIF Executive Secretariat based in Geneva.
4. Trust Fund Manager and other development partners.

These stakeholders are supporting LDCs' own drive to mainstream trade into national development strategies, set up structures needed to coordinate the delivery of trade-related technical assistance and build capacity to trade, which also includes addressing critical supply-side constraints. The EIF continues to support LDC governments and small businesses to trade, developing the kinds of jobs that improve lives and spur sustainable economic development.

Under the programme, LDCs can use the EIF as a vehicle to assist in coordinating donor's support and to leverage more Aid for Trade (Aft) resources, whereas donors can approach EIF or donate through EIF Trust Fund to deliver on their Aft commitments. The programme is currently helping 49 LDCs worldwide through the EIF Trust Fund contributed by 24 donors.

## The EIF initiative in Bhutan

Given the importance of trade for economic growth and development and being cognizant of its limited capacity to trade, the Royal Government of Bhutan applied for the support from the EIF initiative and became an EIF beneficiary country on 28<sup>th</sup> September 2009. The National Implementation Unit (NIU) was set-up under the Department of Trade, Ministry of Economic Affairs for implementing EIF initiative in Bhutan.

The EIF initiative in Bhutan started with the implementation of Pre-DTIS (Diagnostic Trade Integration Study) project on “Institutional Set-up and Capacity Development on Trade Promotion” with a financial support of US\$ 0.05 million from the EIF Trust Fund and RGoB. Under the Pre-DTIS project, the key activities included setting up of institutional arrangements and training of trade officials and other relevant stakeholders involved in the EIF process. The Pre-DTIS project was implemented with a view to lay a strong foundation for the implementation of DTIS and future EIF related activities.

Subsequently, DTIS was carried out in 2011 to identify constraints to competitiveness, supply chain weakness and sector of export potential with a financial support of US\$ 0.4 million in 2011 in collaboration with UNDP Office in Thimphu. A DTIS report comprising of the main report with the action matrix and the National Export Strategy was prepared under the funding. The DTIS report served as the main basis for developing Tier 1 and 2 projects.

The NIU under the Department of Trade had also implemented Tier 1 (Phase 1) project on “Strengthening Institutional and Human Capacity for Trade Promotion and Development” worth US\$ 1.12 million from the

EIF Trust Fund and RGoB over three years with the objective to facilitate the implementation of trade related activities and to support and help coordinate the delivery of trade- related assistance. The Tier 1(Phase 1) Project has been formally completed on 31 September 2017.

The Tier 2 window funding of US\$ 1.84 million from the EIF Trust Fund and RGoB is also available for small-scale projects to build up trade related and supply side capacities under the EIF programme. Accordingly, the NIU/Department in collaboration with six trade related sectors have prepared the first ever Tier 2 project proposal on “E-Infrastructure for Trade and Services Development (E4T)”. The project has been approved in April 2017 and currently under implementation. The project aims to have a reliable ICT ecosystem (hardware and software) that will accelerate the integration of Bhutan into regional and global trade.



The NIU under the Department is also implementing the Tier 1 (Phase 2) project proposal worth US\$ 0.695 million from the EIF Trust Fund and RGoB to address the institutional & human capacity constraints confronting trade and trade related sectors and to promote private sector.

Further, the Tier 2 project on “Export Diversification under Brand Bhutan” with an estimated cost of US \$ 1.935 million from the EIF Trust Fund and RGoB has been approved by the EIF

Board in November 2019 and implemented by Export Promotion Division under the Department of Trade, Ministry of Economic Affairs from February, 2020. It aims to penetrate the premium market and increase exports of Brand Bhutan products. The project will market the exports through the promotion of high value, low volume Bhutanese products in the high-end markets.

The National Implementation Unit under the Department of Trade in collaboration with United Nations Development Bhutan has initiated the Diagnostic Trade Integrated update (DTISU). The DTISU will be formally launched in 2021 and is expected to come up with a comprehensive strategy in support of economic diversification.

## Activities implemented through EIF funding

### 1. Tier 1 Phase 1 & Phase 2 Project - Strengthening Institutional and Human Capacity for Trade Promotion and Development;

- i. Establishment of National Implementation Unit in the Department of Trade, Ministry of Economic Affairs with adequate manpower and capacity to implement EIF initiative in Bhutan and other trade related technical assistance.
- ii. Development of capacity and competency of officials of trade and trade related sector in international trade and related issues.
- iii. Development of operation & management modality for Mini-Dry Port in Phuntsholing.
- iv. Promotion of craft sectors (Yarn Bank, tailoring & design training) through Handicraft Association of Bhutan and Agency for Promotion of Indigenous Crafts.
- v. Promotion of Entrepreneurship through Bhutan Association of Women Entrepreneurs.
- vi. Bhutan SEAL program for Handicraft sector.
- vii. Exporters training in Gelephu, Phuntsholing & Samdrup Jongkhar.
- viii. Training on international trade, financial management, human resource management, business incubation center management on product design, packaging, branding & marketing, export promotion etc.
- ix. Purchase of one pool vehicle (Hilux) for the Department of Trade to ease the movement of officials for official purposes.

### 2. Tier 2 -E4T

- i. Support the RGoB initiative in establishment of Peoples Data Hub to develop uniform platform for data sharing among systems and agencies in the Government for seamless information flow.
- ii. Develop the One Stop Info. Centre with all trade-related data and information and data related to Trade and Industry Sectors is available for businesses, individual and government agencies on a click for the different information users.
- iii. Support to develop the Bhutan Commodity Exchange to commercialize the Bhutanese agricultural sector, to create price transparency, to increase commodity prices due to extended market depth, to integrate smallholders, and to reduce transaction costs and ultimately to improve rural life standards
- iv. Support the Department of Industry in collaboration with the UNCTAD to develop an eRegulation portal aims to make administrative procedures transparent, swift and efficient contributing to making the environment more conducive for private sector development and good governance.
- v. Develop an E-commerce policy documents to create a legal and policy environment to enable ecommerce and ICT-enable business.
- vi. Set up a National System of Tourism Statistics (STS) that includes all basic information and facilitating structures and capacities needed to embark on the process that will lead to an Experimental Tourism Satellite Account (ETSA) for Bhutan.

*Prepared by EIF National Implementation Unit, Department of Trade, Ministry of Economic Affairs, December 2020.*



Special coverage:

# Frugal Economy

*“Today GNH has come to mean so many things to so many people but to me it signifies simply – Development with Values. Thus for my nation today GNH is the bridge between the fundamental values of kindness, equality and humanity and the necessary pursuit of economic growth. GNH acts as our National Conscience guiding us towards making wise decisions for a better future.”*

—  
His Majesty the King

**Editorial:** *Time for a new operating system*

**Inventory of Reckonings**

*Settling to terms*

**Weighing the incumbent**

*Calling out the old*

**Appraising the heir-apparent**

*Frugal economy - it gels with Bhutan*

**What's in the box**

**Bhutan Economy**

*Home economy*

**Frugal innovation**

*Innovation that drives innovation*

*Demonstrating frugal innovation*

**Frugal innovation Bhutan**

*Necessity - the mother of frugal innovation*

**Green Financing**

*Ideas that think alike*

**Green Finance Bhutan**

*Green finance in Bhutan*

**Frugal economy and financial inclusion**

*All aboard the financial inclusion train*

*To frugal (economy), and beyond*



## The times, they're a-changing: For a new operating system?

**COVID's big shakeup:** It takes an earth-shattering event to get the undivided attention of the world. This has happened; it's called climate change. Currently in play, we have for ourselves, a world-shattering event, being called the COVID-19 global pandemic. It has the world's attention – undivided and laser-focused.

**Casual voices of the masses:** The rants and raves are casual, on the streets, in homes, in communities. But even in the casual rants and raves, there is a pattern; a patterned content that is perhaps molded through unconscious absorption of a few nuggets of wisdom; a little from here, a little from there. Knitted between casual words are keywords, certain catchphrases that are symbolic of the times they are experiencing, of the emotions they are processing.

“Teaching a lesson to everyone,” – features most commonly in what people say about the times they are experiencing due to COVID's presence in the country. People say the pandemic with its proprietary mode of spreading required people to wear masks, maintain strict hand hygiene and practice physical distancing. They say it has been an “I told you so...” moment for those who have been lecturing, advising, guiding and a moment of costly learning for those not paying heed. Add to that, lockdowns across the borders caused disruption in supply of essential goods. It drummed a sense of prudential behavior in money management, time management and generally a judicious use of resources in general. The nation's own lockdown of 21

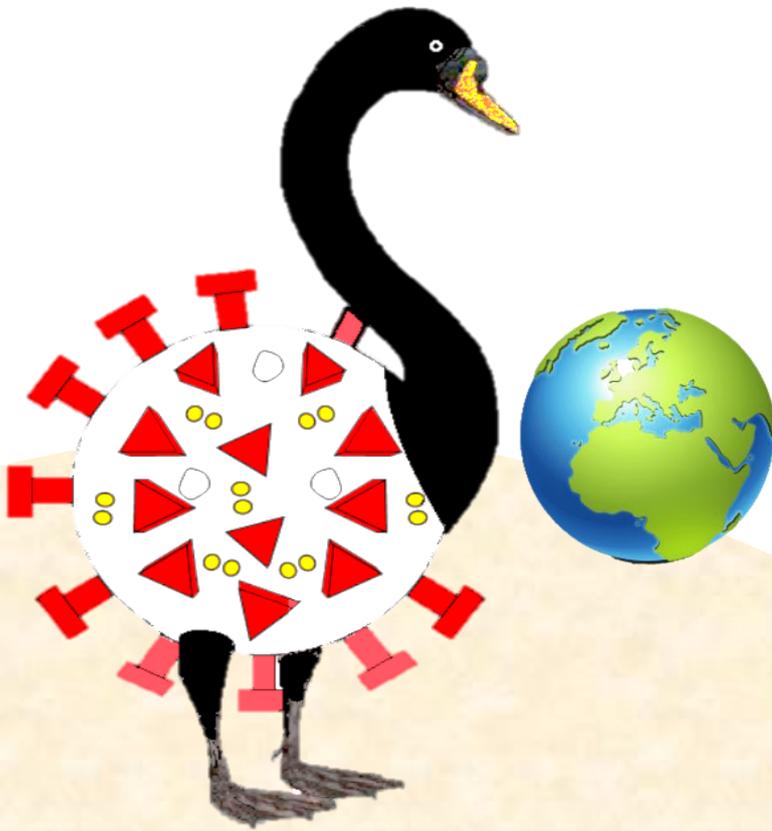
days was a period of reckoning for government and people.

And then, about what the finance minister said in September on national TV while he delivered a status report of how much the economy has been affected by the pandemic, that “pre-COVID priorities” and priorities in the COVID times are different, that the economy has to operate per changing dynamics of challenges imposed by the COVID-19 pandemic

**No mixed signals:** Straightforward interpretations are that it took the arrival of a pandemic to teach people old and young to, for once, toe the line of cleanliness on their own without a disciplinarian figure telling them as such. That it effectively drove home the lesson of being judicious with one's use of resources; to not indulge in excessiveness or wasteful behavior. Likewise, we can simply conclude that the minister told the nation to ‘lay low for now’ with cautious conducts, but return to doing what we used to do in the same manner we used to do it.

But seemingly, that is not the takeaway.

It looks like, what we really should be asking is: do we need to wait for an overpoweringly colossal event to inculcate a sense of good hygiene and prudent use of resources.; do we have to make adjustments to our way of life, to the way the national economy is operated only during the reign of that colossal event. Here, the question burning to be asked is: Are we in need of a new economic operating system, one that will not be so helplessly vulnerable to unforeseen events like the current Global COVID-19 pandemic? Should Bhutan



The world should see the wisdom in past black swan events; start learning from the one currently ongoing, and act differently to handle things better for it is uncertain when the other black swans lined up and lurking in the shadows might explode into the scene

consider a new operating system for its economy and replace the one that it has been operating thus far?

**Old roads lead to the same destination:** The devotion to some reward afar from those in a position of misery is bound to fade. If Bhutan's dedication to something that is afar, like development's big promise has reached a stage where it's become more burdensome than promising (and further aggravated by the likes of COVID-19 pandemic); then most potentially, it's time to consider alternative tactics in economic systems, through which such goals are pursued.

In the way that the world has been operating so far, it has witnessed a Great Depression in the 1930s, which lasted a decade. In came the 2000s and seven years later, the world economic system suffered a massive hit with the Global Financial Crisis of 2007-2008, which at the time was called the most severe global crisis since the aforementioned Great Depression. Of course, no one expected, pre-empted or prepared for a black swan like the COVID-19 to strike just a decade down the line.

And yet, here we are dragging the same economic system, the same one bungling on multiple occasions. The same one that is currently in trouble.

**Squaring the circle:** Where do people usually look when they have eventually landed in the midst of big problems? – To a time in memory when things could have been done differently, where actions could have been arranged differently; or perhaps to a solution-

providing model that has always been around but never been entertained.

Frugal Economy and therein Frugal Innovation has all the makings of the hero that saves the day—the one that is seemingly the need of the hour—to drive more inclusive growth by tackling poverty and inequality around the world. Where apocalyptic levels of environmentally blindsided activities persist, it is also increasingly seen as the key to “growth that will not simultaneously wreck the planet.” The dominant agenda at global forums like the Paris climate summit is the increasing gap between the developed and the developing countries. The ‘developed’ cannot stop the ‘developing’ from pursuing levels of prosperity equal to those who are developed. Then again, there are fewer or no alternatives where developing countries can grow, in the manner that the developed countries did—without destroying the planet.

In this scenario, all sign posts point to sustainable growth as the viable answer to pull off a balancing act. And as the insurance to ensure that with a lot more impact, a frugal economy and the horde of its constituents is seemingly gaining vitality. Applying frugal innovation in areas—such as energy generation and use, in manufacturing systems that are more local, and shifting to a circular economy where companies and consumers reduce, reuse and recycle in a potentially infinite loop—is well worth the shot to take.

## Settling to terms with the unsettling mood

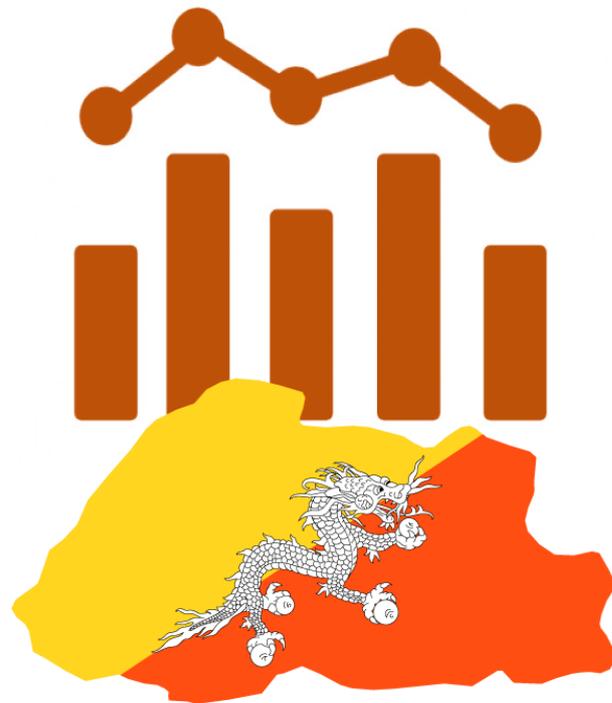
**Around the world:** This generation of people walking this earth, they will never forget the unrelenting COVID 19 and its direct and indirect impacts. And especially for the millennials, this is a second in economic crises to be experienced in one lifetime taking the global financial crisis of 2007-2008 into account. It is literally a painful experience for those infected by it. For others, it remains, a pain-personified experience, as it affects and impacts through different channels and in different ways. While those recuperating will stay on the mend, it is the economy that has to be set on a path to recovery. In its raging arrival and rapid surge of spread, the pandemic caused the largest global recession in history, where almost a third of the global population were placed under some form of lockdown. World over, economists and experts have said such an event has not occurred since the Great Depression of the 1930s. It's been said, the turn of events choreographed by COVID 19 was laying the ground work for a similar economic event of equal or greater disastrous levels of downturn. Across the world, economies are crippled, near-shattered, with every one now positioned to put themselves together.

**At Home:** Other than reflecting on 'good old days' for comfort, there is of course no digging for answers in the past – especially in connection to COVID – to draw insightful wisdom. But right about now, some part of Bhutan could be wishing if it was still wearing its isolationist avatar; for all the connectivity achieved seems to be wearing thin on its people and the national economy.

The country's projection of Gross Domestic Product (GDP) for the 2020-2021 fiscal year in July was at negative 2.3 and has been revised to negative 2.1. After completion of a three-week lockdown, forecasts are now all but grim projected (in a worst case scenario) to drop to a negative 6.7. Given the unpredictability of the Pandemic's knack for situationally contaminating communities in a matter of hours, the likes of aforementioned lockdowns are just lurking around corners.

Immediate move on the government's part has been to initiate a major overhaul of the 12th Five Year Plan considering major shifts in priorities of development plans. The current plan has an approved capital of Nu 310 billion. The government has also offered bonds worth Nu 3 billion for public subscription keeping in sight the need to promote and sustain capital market.

The finance minister explained on national TV BBS, priorities set pre-COVID crisis are different from the priorities now coming forward in these COVID times. That way economic recovery plans are paying heed to, and adjusted per changing dynamics of challenges imposed by the COVID-19 pandemic.



The country's projection of GDP for the 2020-2021 fiscal year in July was at negative 2.3 and was revised to negative 2.1

The global financial crisis of 2007-2008 was a result of excessive risk-taking by banks which paired with the bursting of the USA's housing bubble plummeted the values of securities tied to the US real estate. This added up to damaging financial institutions globally. The Great Depression started in the US due to a major fall in stock prices and became worldwide news with the stock market crash. It was the longest and most widespread depression of the 20th century and lasted a decade, following which most economies could not return to the peak performances they demonstrated before the crisis.

Frugal  
Economy



Capitalist  
Economy



### Calling out the popularly old

It seems, the favorite of world economies may have outlived its celebrity status. Word out, or rather word spread out by effects of the pandemic is bringing out all systemic flaws in the system that runs most economies of the world today – capitalism.

As the current global crisis more than slightly points out, its being caught off-guard may have a lot to do with its chief characteristics: Number one – capitalism is been all about a zero-sum game where companies in a world of cut-throat competition accumulate and hoard assets all in an atmosphere of private ownership and individualism and competition. Number two – mass production and global supply chains (which are heavily polluting and resource-intensive) are chief mode of operations to seek economies of scale in a capitalist economy. Capitalism has been beat, this time round by catastrophic disruptions like COVID-19, especially for this element, that is, the absence of flexibility to deal with devastatingly unexpected events. Number three – Maximization of short-term profits by companies is made attractive through incentives. These profits are solely keeping in mind the shareholders. This doesn't spell anywhere the creation of long-term value for all stakeholders. Number four – In the capitalist world, it's all about take, make, break, waste etc. but none about accountability for the negative outcomes of the various activities carried out by respective companies/businesses chiefly environmental degradation and social inequality.

**About Bhutan:** The country is by no means capitalist in its economic functioning. Sure it has elements of primary industries such as agriculture, manufacturing, mining, and tourism going on, but It has been very clear to ascertain a GNH- fuelled and –driven economy. In that this country's is a subsistence economy, largely traditional. All well and good, but what if this time round, we bring on board an alternative to the old system. Because we are but progressively becoming a market economy. And given the showcasing of flaws, we should second-think adopting elements of a dysfunctional operating system.

**About time for a new approach:** Rebuilding and revitalizing economies are simultaneously ongoing talks in the wake of fighting and addressing the global COVID-19 pandemic. If we are planning to put out the same formula, the same economic operating system with slight tweaks here and there, it may stay and weather the storm, but what about the long term, when and if similar unexpected global events dig out all chinks in the armor and tear everything down. Again.

As far as it's about scouting for something that is up our alley, particularly in respect of GNH etc. there is a hard hitter that fits our mold. It treads the tenets of being socially inclusive, ecologically beneficial. It complements building and supporting radically new industry value chains that are truly beneficial to people and the planet. Bhutan needs to become a frugal economy.



## Frugal economy – It gels with Bhutan

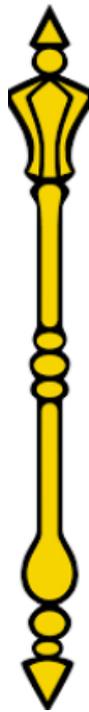
To begin with, Bhutan's attempts to do things differently with the GNH philosophy comes around most potentially after considering the three basic questions all economic system asks: What to produce; How to produce and in what quantities; and Who receives the output of production.

With the developmental direction taken by Bhutan in mind, and weighing the elements of the country's GNH development philosophy with what and how frugal economy prioritizes, there are enough aspects that encourage the Yes votes and the proverbial green signal to adopt it for the country. If not for anything, it should suffice to observe that it is everything that a capitalist economy is not. And capitalism is nowhere in the horizon of Bhutan's pursuits, as far as choosing economic systems go.

\* A frugal economy has the end goal to create more economic, social and ecological value.

\* A frugal economy focuses on wise and optimal use of available resources. This is in stark contrast to a capitalistic system – the dominantly practiced economic system the world over. The use of more and more resources to produce more and more products is what you might call the highlight of capitalism.

\* In the wake of, or aftermath of a globally impacting event like the COVID-19 —or the likes of it that might strike in the future— a frugal economy is best positioned in responding to the needs of consumers hit hard by COVID 19 (or any other recession) and made highly cost-conscious while inescapably seeking a better life through healthier and eco-friendlier lifestyle.



Bhutan's pursuit of development with a GNH-guided philosophy finds common grounds with the operating dynamics of a frugal economy



\* Frugal living is mainly practiced by people who aim to get the most they possibly can from their money, cut expenses to have more money in hand. That way, the operation of frugality finds itself founded on reduction of waste, engaging different means of financial self-restraint by cutting costly habits, suppressing the new age side-effects namely instant-gratification. Frugality seeks efficiency by identifying and avoiding manipulative advertisements, and staying well-informed about local circumstances; and both market and product/service realities. Frugality contributes to health when it leads people to avoid excessive use of unhealthy products which are most times expensive.

## What's in the box?

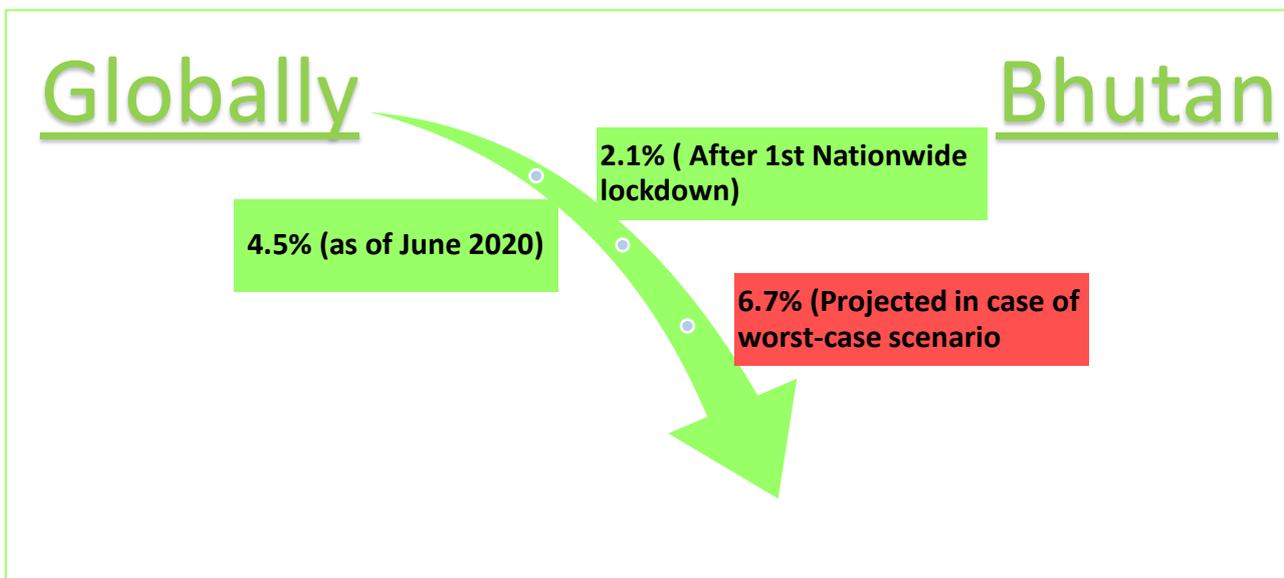
**Frugality:** It is defined as the quality of being frugal, sparing, thrifty, prudent or economical in the consumption of consumable resources such as food, time or money, and avoiding waste, lavishness or extravagance. A frugal economy has that template applied on a macro scale with all the effectiveness of effective social science.

**Frugal Economy:** A frugal economy is chiefly characteristic of one of these two criteria –one, a lack of debt; and the second, is debt that exists because the incoming or future benefit of the debt exceeds the cost of the debt. It could be seen as something that one might call ‘investment debt.’ A comparable example is an education loan availed by a student who borrows with the expectation of a lifetime of earning income.

In a frugal economy, frugality comes to play by acquiring goods and services in a restrained manner, and overseeing resourceful use of already owned economic goods and services, to achieve a long term goal.

**In the corporate world:** Frugality has been adopted by large enterprises as a strategic imperative; as a means of cost reduction to bring about a philosophy of careful spending among the workforce. Cost reduction is often perceived negatively, be it within a corporate organisation or in society, so inviting each employee to embrace frugality transfers the burden of cost reduction from management to the employee. In doing so, corporations introduce a moral obligation to cost cutting, proposing the notion that careful management of costs is in the company, shareholder and employee's best interests.





## Home economy

The economy of Bhutan is largely based on agriculture and forestry, which provide the main livelihood for more than 60 percent of the population. The economy is closely aligned with India's through strong trade and monetary links, and dependence on India's financial assistance.

Bhutan has the status of a Least Developed Country, but is slated to graduate to a Middle Income Country in 2023. The country had requested the UN for the earlier slated year '2021' to be pushed back, stating that completing the 12th Plan is in the country's best interest.

**Agriculture:** Agriculture practices consist largely of subsistence farming and animal husbandry. The geography of the land is dominantly rugged mountains and the tough terrain. This makes the building of roads and other infrastructure difficult and expensive.

**Hydropower:** The hydropower sector is a major engine of the national economy and a big contributor to the GDP. The sector's contribution is 14 percent in GDP and positively on the climb.

In this COVID period, the hydropower sector has come across as something of a saving grace, and being called a "COVID-19 –proof economic bedrock." Revenue from the sector has actually increased due to early arrival of monsoons in May. For instance, due to timely rain, the Mangdechu hydropower plant 20 percent above its normal capacity for a whole month. The collective generation of DGPC or Druk Green Power Corporation power plants Tala, Chhukha, Basochhu and Kurichhu increased 14 percent to 3,724 million units

from January to July 31 this 2020 compared to 3,248 million units for the same period last year.

**Tourism:** The tourism sector is lined up right behind the hydropower when it comes to economic contribution. It is the second most potential sector through its earning of foreign exchange and generation of opportunities in commerce and employment, mainly in the tour operations and hospitality industries. It is also credited for employment generation as many take up the profession of tour guides, and work in the various hotels and resorts.

Prior to the onslaught of the global COVID-19 pandemic, tourism in the country, one might say was at its shining high with Lonely Planet putting Bhutan at the number one position among choice destinations to visit in 2020. At present tourism sector has been the hardest hit with a ban on international tourists in view of the ongoing global pandemic.

**Industrial sector:** Most production in the industrial sector operates at a scale of the cottage industries. Development projects comprise mainly roads and bridges infrastructures.

Every economic plan takes into account the country's development philosophy GNH. All development activities need to pass through the GNH scanner which looks at protecting the country's environment and cultural traditions. For example, the government in its cautious expansion of the tourism sector, encourages 'High value, Low volume' tourism of environmentally conscientious tourists.

## Innovation that drives innovation

The new age is in a big way all about defying the impossibilities of its preceding age or ages. Well, that is to say, if not entirely out of purposeful intentions, then simply because the sheer mannerism of the march of progress means – showing up faster, bigger, and better in all comparative terms. This age of internet and high connectivity has enabled people like no other era. These days, ordinary people are able to do at home what some decades ago only scientists did in their sophisticated laboratories. Termed the internet economy, it has been instrumental in lowering costs in many sectors for research and development, design and production.

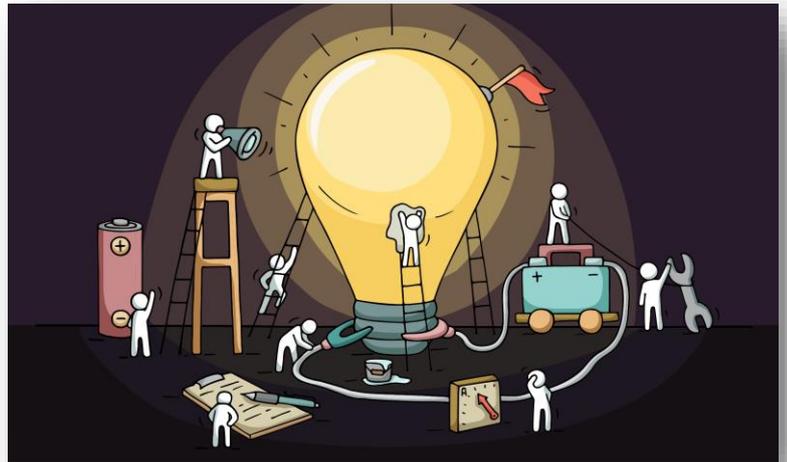
Frugal innovation is exactly that phenomenon which looks into delivering more value at lower costs to more people. It aims to retain the quality of user experience while adopting a mindset of simplicity and low cost. Put simply, it is about stripping away the extras and delivering simple, robust and less resource-intensive products of good quality.

**Relevance to the times:** It's an old concept, the so-called frugal innovation. It is rooted in the applicable technology movement of the 1950s. And in the 1980s, multinational corporations targeting a cross section of underserved consumers may have made profits employing the concept. But today, frugal innovation is no longer the preserve of multinational corporations. Small, local establishments are also now able to come up with various innovations that serve effectively in various sections of life. Locally made cheap mobile phones, off-grid electricity generated through ingenuity of ordinary citizens, prosthetic legs fashioned from irrigation piping etc. are all instances demonstrating frugal innovation.

In the midst of the concept picking up momentum in the South Asian region, especially India, the US Department of Commerce in 2012 has commendably remarked on its innovative achievements, saying many Indian firms have learned to conduct R&D in highly resource-constrained environments and have found ways to use locally appropriate technology. For Bhutan too this signals encouragement.

### Frugal Innovation, what makes it tick?

Frugal innovation is a process that seeks to reduce complexities and cost of a good and its production. In simple words, Frugal Innovations can be created adopting processes like Circular & Sharing Economies,



## The internet has helped lower costs in R&D and facilitated frugal innovation among people

Open Innovation, Maker Movement and Inclusive Business.

Chiefly characteristic of frugal innovation is removing non-essential features from a product, take for example a mobile phone or a car; in order to sell it in a targeted market section or an entire country (ies) of the developing world. Producing and designing products in that strict sense of frugal innovation leans to one attribute replacing the one that has been removed or excluded from the process. The aspect of durability is increased for all the features considered 'non-essential' and hence removed. When it comes to selling, to the underserved or the so-called overlooked consumers, production firms hope volume will counterbalance the thin profit margins.

Services and products that come out of frugal innovations are not necessarily of inferior quality but they are provided cheaply. While frugal innovation is considered performing well-enough, it must up the ante in sectors like healthcare without compromising on quality. Increased globalization and rising incomes in developing countries have favorably driven frugal innovation.

Many terms are used to refer to the concept of frugal innovation which with its 'no-frills approach' becomes a kind of disruptive innovation. 'Frugal engineering' was coined by, Carlos Ghosn who was joint chief of Renault and Nissan who said "frugal engineering is achieving more with fewer resources." Words like Gandhian or Jugaad (Hindi for a stop-gap solution) are used in India, instead of "frugal". Other terms with similar meanings include "inclusive innovation", "catalytic innovation", "reverse innovation", and "BOP innovation" etc.

## Demonstrating frugal innovation

While frugal innovation may be characteristically keen on durability and durable goods, it is not entirely limited to operating within the threshold. Services such as 1-cent-per-minute phone calls, mobile banking, off-grid electricity, and microfinance also shining innovations that have done much for humanity, especially the sections we like to call underserved and overlooked.



**Tata Nano:** The Tata Nano was developed by Indian conglomerate Tata Group and is the cheapest car in the world. Known as the '1 lakh car' in Bhutan,

excitement was high among Bhutanese, especially those young and starting out on a career path in the working world, to own a car of their own and benefit from commuting in an automobile. The Nano however, never made it to Bhutan.



**Nokia 1100:** Casually called 'basic phone' by the general public, the Nokia 1100 was a most ubiquitous hand-held device among the Bhutanese lot, young and old. Designed for developing countries, the Nokia 1100 was

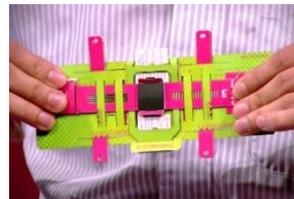
introduced in 2003. It was basic, durable, and—besides a flashlight—had few features other than voice and text. It sold more than 200 million units within four years of its introduction which made it one of the bestselling phones of all time.



**Jaipur leg:** costing about \$150 to manufacture, the Jaipur leg is a low-cost prosthetic developed in India. It includes improvisations such as incorporating irrigation piping into the design to lower costs.



**Solar skylights:** Made from one-liter soda bottles filled with water and bleach, solar skylights provide light equivalent to that produced by a 55 watt bulb in some Philippine slums. It is able to reduce electricity bills by US\$10 per month.



**Foldscope:** Designed to cost no more than a dollar, the Foldscope is a tough origami microscope assembled from a sheet of paper and a lens.



**Sorghum beer:** In Africa, several companies following in the footsteps of local home brewers, have made beer more affordable by using sorghum or cassava in place of malting barley and reduced packaging costs by using kegs instead of bottles.

**Mobile banking:** Mobile banking solutions in Africa, like M-Pesa, allow people access to basic banking services from their mobile phones. Money transfers done through mobiles are much cheaper than using a traditional method. While basic banking can be done on a mobile alone, deposits and withdrawals of cash necessitate a trip to a local agent.

With an aim to harness the benefits of digitalisation, efforts have been in full swing in the area of mobile banking from the nation's central bank Royal Monetary Authority (RMA) and among the various financial institutions of the country. It is a cause to reach the unreached, bank the unbanked and basically educate target groups by spreading financial literacy.



*“The question I have is how are we able to leverage technology for education; job creation; good governance; effective, timely and efficient delivery of services to our people; private sector development and growth; for accountability and transparency?”* — His Majesty The King at the 14th Convocation of the Royal University of Bhutan on 24 May 2019

## Necessity- the mother of frugal innovation

Necessity births a lot of innovations, and humankind has done it continually to make life easier, and at these points of origin, things are unsophisticated, user-friendly and cost-efficient. But in these technologically forward times, the process of making them state-of-the-art; bearing in mind multiple factors—of consumer satisfaction, market standards, beating the competition etc.—they usually push the innovations to a high-point where the pool of beneficiaries become less than universal or non-inclusive.

That’s potentially the point where frugal innovation makes its entry. Frugal innovation is about delivering more value, at lower costs, to more people. It adopts a mindset of simplicity and extremely low cost, where stripping away extras is par for the course. However, all that talk of simplicity and low cost is no green light for sacrificing the ensuing quality of produced goods. The delivered products are simple, robust and less resource-intensive.

**Crossing horizons:** Only when one dares to lose sight of the horizon, can they see the other side and discover everything that lies beyond. Bhutan is unavoidably ‘small and landlocked,’ – that’s geographically speaking; but in these times there are no formidably standing (physical) barriers between the country and its desire to make headway in innovation and markets for products and services. Thanks to education, access to development platforms and tools largely through the use of internet and low-cost computing power, the innovation scene is not the preserve of a particular country or region.

Efforts are on in the country’s training and education avenues through various initiatives. Focused on developing 21st century technology skills, a lot of those efforts are pouring in toward rejuvenating the Technical & Vocational Education and Training (TVET) sector to meet international standards; and the gaining momentum of discussions to institutionalise the education system required for the jobs of the future, sure nudges the Bhutanese technological path in taking the right direction.

It would be a while before the country shapes itself in the mold of a big time innovator, walking eye-to-eye with other global players at the helm of the ‘maker movement’ and the ‘sharing economy movement’ – the two massive movements of recent years that demonstrates the potential of frugal innovation (in the West).

The sharing economy is best demonstrated by the likes of Airbnb, an American vacation rental online marketplace. It lets people rent out their properties or spare rooms. Similarly, BlaBlaCar is a French online marketplace for carpooling. Its website and mobile apps connect drivers and passengers willing to travel together between cities and share the cost of the journey. The sharing economy has allowed consumers to trade spare assets with each other and thus generate new sources of income. Meanwhile, the maker movement features proactive consumers who tinker in spaces such as FabLabs, TechShops and MakeSpaces, designing solutions to problems.

# Frugal innovation Bhutan

Whether Bhutan gets its place in the sun is not immediately important. As long as it has made an earnest start, there is definitely forward to go; and there is only progress to be made. Development, recent and over the years in the technology and innovation field is warming up to the occasion. And with ICT programs being awarded the status of flagship programs; their activities being instituted and driven with more zeal than ever, there is definitely a horizon in sight—to be crossed with successful leaps and bounds.

**FabLabs come to Bhutan – lining up the stepping stones:** A fablab was started in July 2017 at Olakha in Thimphu, an opening that was launched by the then Prime Minister Tshering Tobgay. The set goal is to have a fablab instituted in every central school of the country.

Some years ago tech enthusiasts saw it near-impossible to find the simplest of electronic components in the country. Considering that, hosting a fablab and establishing a super fablab in collaboration with the Massachusetts Institute of Technology or MIT of USA is quite the step forward. After establishment, the super fablab would have machinery, software, and platforms to prototype almost any idea that one could possibly imagine and draw on a piece of paper. The site of the super fablab would provide the required platform for individuals, established corporations, and business sectors to simulate the ideas and build prototypes and start on their startup journey in technology, innovation, and using them to solve the problems that the world encounters.

**History of fablabs:** The fablab began as a program collaborated between the Grassroots Invention Group and the Center for Bits and Atoms (CBA) at the Media Lab in the Massachusetts Institute of Technology with a grant from the National Science Foundation (Washington, D.C.) in 2001. It was initiated to broadly explore how the content of information relates to its physical representation and how an under-served community can be powered by technology at the grassroots level. The CBA invested millions of dollars in machines for research in digital fabrication, aiming to develop programmable molecular assemblers able to make almost anything.

Today, fablabs have spread from inner-city Boston to rural India, from South Africa to the North of Norway. Activities in fab labs range from technological empowerment to peer-to-peer project-based technical training to local problem-solving to small-scale high-tech business incubation to grass-roots research. Projects being developed and produced in fab labs include solar and wind-powered turbines, thin-client computers and wireless data networks, analytical instrumentation for agriculture and healthcare, custom housing, and rapid-prototyping of rapid-prototyping machines. Fab labs share core capabilities, so that people and projects can be shared across them (a characteristic trait of the sharing economy, and the maker movement). This currently includes a computer-



controlled laser cutter, for press-fit assembly of 3D structures from 2D parts, larger (4'x8') numerically-controlled milling machine, for making furniture- (and house-) sized parts. They are supplemented by a sign cutter, to produce printing masks, flexible circuits, and antennas, precision or micron resolution milling machine to make three-dimensional molds and surface-mount circuit boards and programming tools for low-cost high-speed embedded processors. They work with components and materials optimized for use in the field, and they are controlled with custom software for integrated design, manufacturing, and project management.

**Digital Drukuyul:** Transforming Bhutan into a smart and inclusive society by harnessing power of ICT and by digitally empowering its citizens – this is the end goal of the ICT flagship program Digital Drukuyul. The program would provide the fundamental building blocks for the national digital economy on which organisations and, importantly, individuals can leverage, develop, and evolve. It should provide the vision, direction, and a platform that can be leveraged to develop the digital future of the nation.

Being awarded status of flagship awards the ICT program with the required prominence, and with a Nu 2, 557 million budget set aside, the fund factor is soundly addressed. The program stands on reassured grounds to achieve its goals, as it operates on a Whole of Government (WoG) template which means all agencies and departments of government will be on the same page and inter-department activities will be coherently in sync with one another. This 'coherence' was something that was largely unavailable in the previously attempted ICT programs that functioned largely in independent silos.

For a country that is rooted in GNH values, where everything new is operated within the perimeter of harmoniously blending age-old values with new developments, an optimally digital Bhutan would provide the impetus to meet the aspirations of the 21st century.

**Main results:** Institutionalize e-Patient Information System; Create Digital Schools; Integrate e-business services (business licensing & single window for trade); Digital ID. Connectivity to about 1000 schools, hospitals and offices; ePIS (27 hospitals, 23 BHU-I and 186 BHU-II) by 2022/23; 200,000+ Digital ID. The program objective shall be achieved through focused turnkey initiatives that will radically improve citizen satisfaction of public services in health care, education business licensing and other critical public services.



## Ideas that think alike

Frugal innovation is a concept that urges businesses to respond to limitations in resources; whether financial, material or institutional. It turns these constraints into innovative ideas and practical solutions. A lot of common ground there with Green Financing which operates on the key fundamentals that aim to better manage environmental and social risks, take up opportunities that bring both a decent rate of return and environmental benefit and deliver greater accountability. Green financing means to increase level of financial flows (from banking, micro-credit, insurance and investment) from the public, private and not-for-profit sectors to sustainable development priorities.

Green finance refers to the provision of financial services for climate action and related projects. It's an avenue through which investment avenues are opened up to finance sustainable development that protects/conserves environment, and address climate change.

**The Greener pastures of green finance:** The President of the world's leading and most powerful nation, the US, may have pulled his country out of the Paris climate pacts; climate change may continue to be the frequently occurring sticky issue for politicians to debate, but green finance is all the rage amongst investors in the global arena. Matter of fact, the growth of green finance is scheduled to continue as most governments continue the worldwide focus on how to save the planet, fight climate change by cutting pollution and reducing emission of greenhouse gases. And turning matters favorably toward green finance, more regulators require companies to disclose climate-related risks—leading to more data displaying which companies are most exposed and showing better insight about how to make money while saving the planet.

More than half of global GDP – \$42tn (£32tn) – depends on high-functioning biodiversity, according to a recent report from the Swiss Re. The Swiss Re Group is one of the world's leading providers of reinsurance, insurance and other forms of insurance-based risk transfer. It is headquartered in Zurich, Switzerland, where it was founded in 1863, the Swiss Re Group operates through a network of around 80 offices globally. And there is more reason to conserve environment revealed in an analysis by the insurance the same firm. So says the Swiss Re report: “One-fifth of the world's countries are at risk of their ecosystems collapsing because of the destruction of wildlife and their habitats.”

**The UN Sustainable Development Goals (SDGs) and green financing:** UN Environment has been working with countries, financial regulators and finance sector to align financial systems to the 2030 sustainable development agenda – to direct financial flows to support the delivery of the SDGs. At the core of today's globalized economy are financial markets through which banks and investors allocate capital to different sectors. The capital allocated today will shape ecosystems and the production and consumption patterns of tomorrow.

With at least \$30 trillion of funds held in sustainable or green investments, according to a report by the Global Sustainable Investment Alliance, the green financing market is a growing lucrative market with a huge environmental conservation/sustainable development aspect. The Global Sustainable Investment Alliance is a group of organizations tracking green finance moves in five regions from the U.S. to Australia. Overall, these money flows account for one-third of the tracked assets under management, and in some places have reached more than half.

### Green finance in Bhutan

Long before green finance was the globally trending phenomenon, Bhutan already made a name for itself by championing all things green; ‘green’ in the environmental conservation sense. And should you choose to hear that relatively with green finance, this little opener should suffice: ‘Successfully passing an environment clearance was always one of the major criteria for all those availing loans in the country.’ It still is.

Now that Bhutan is blending in with the global green finance movement, the RMA is coming up with a framework to engage banks toward lending to environment-friendly projects. With green finance in perspective, banks should have strong schemes and products to understand (green) activities, how to finance them while also being resilient in terms of the sustainability of finance. According to RMA, Bhutan is way ahead of other countries in terms of pursuing inclusiveness as well as green financing.

**Bhutan’s green finance roadmap:** The RMA is hot on the trails of developing within the year — “a developmental roadmap on green financing with strong Inclusive Green Finance (IGF) elements.” The RMA provides all necessary resources to successfully see it through. This is happening by creating tools and criteria; identifying key stakeholders and establishing monitoring, supervision and assessment structures for the country’s financial sector. IGF is about how financial regulations can enable financial inclusion that builds resistance and mitigates climate change. The forthcoming roadmap is conceived for easy understanding to reach out to the widest of audience across all levels—from governors to financiers and even borrowers—emphasizing that banks can contribute significantly to green initiatives. When this plan comes together, it means that everyone gets to play their part in ensuring environmental protection and sustainability.

**Learning the ropes in the network:** The country takes the lead with the Alliance for Financial Inclusion (AFI)’s endeavor to develop a common framework which can be followed by all member countries. AFI is a member-owned network and a leading organization on financial inclusion policy and regulation in the world. The RMA’s co-hosting a three-day Joint Learning Program (JLP) with the AFI in January was a move in that direction.

More than 70 participants attended the JLP on inclusive green finance. It comprised RMA Bhutan staff, local financial and non-financial institutions and government

According to RMA, Bhutan is way ahead of other countries in terms of pursuing inclusiveness and green financing.



agencies. Also, international experts from Bangladesh Bank, the National Bank of Cambodia, Nepal Rastra Bank, Central Bank of Sri Lanka, the Bank of Thailand and the Central Bank of Seychelles (as an observer) made up for the international gathering that shared insights and experiences in the emerging policy area of green finance.

**Have IGF, will drive conservation:** Having a strong green finance component complements the country’s conservation drive. In this, IGF would make the various operations more efficient. Truth is, conservation may bring in all the accolades of nobleness, but conservation doesn’t come free; it involves huge expenditure. At present many climate change and environmental preservation initiatives are in action at the national level.

**What lies ahead:** Foreseeable interventions by concerned authorities in introduction of new financial products are likely to lean toward being developed to cater to green finance companies, fintech startups, guarantee schemes, finance for alternate collateral security services, smart cards etc.

**BNB**  
*mPAY*



## All aboard the financial inclusion train

With a successful track record that passes it with flying colors, mobile money and digital financial services are frugal innovations that serve as excellent medium for providing and deepening access to formal financial services among the unbanked and underserved.

Mobile money is frugal innovation simply for the observation that it eases cost of financial services, which usually means those accumulated from distribution of services, establishment and building of infrastructure for those financial service points. The greatest benefit it has been able to churn is the delivery of these services to the consumers and users availing them from the far-flung and remote areas divided from easy communication by harsh and difficult terrains. And yet even for those stationed in well-connected urban areas these services conveniently add to enhancing the ease of access and thereby remain enabled to do things with greater efficiency.

### The RMA & financial inclusion

The RMA continues to modernize the current payments and settlement system and strengthen financial inclusion initiatives. To promote a market driven and seamless financial intermediation process, important policy initiatives and economic reforms must be complemented by use of effective modern fintech solutions to generate greater efficiency gains and spur widespread economic and social benefits to our communities. The positive externalities of digitization effort not only ensured easy access to essential financial services but also helped to promote the objective of financial inclusion. For instance, to complement initiatives like PSL the RMA continues to make an effort to promote easy access to finance through alternative financing options.

### My switch is your switch

The affordable provisioning of financial infrastructure not just within Bhutan but also across borders helps implement functions to drive and enhance digital financial inclusion. This is exactly what is planned to happen with the National Payments Corporation of India and RMA's implementation of a historic connection of the Bhutan Financial Switch and the

National Financial Switch of India. This is good news for Bhutan as it further strengthens the economic and financial linkages with India, its biggest development and trading partner. The integration will complement financial services delivery.

## **Fuelling frugal economy with financial inclusion**

A new consumer-orchestrated value ecosystem is on the rise. This system allows consumers to design, build, market, distribute, and trade goods and services among themselves; and in the process, this system eliminates the need for intermediaries. This so-called “intermediaries” is the reason why transaction costs, and the intangible costs associated with search, bargaining, decision-making, and enforcement remain in existence. It’s the main reason why only a few large producers rule and dictate conditions from the top of a pyramid shaped market where at the bottom, millions of passive consumers obey powerlessly (and most times – mindlessly). But with the Internet, mobile technologies, and social media removing such costs in many areas, the

pyramid-shaped market of old is well on its way to change. This bottom-up approach to value creation is enabled by the horizontal (or peer-to-peer) networks and do-it-yourself (DIY) platforms that form the foundation of the “frugal” economy.

In this, digitalization of financial services is the spotlight that lights the way while also keeping priorities in the field illuminated and addressed. It opens up the possibilities of banking services to those far and away, those unbanked, overlooked, and never really touched effectively by the goodness that such facilities are known to bring.

Bhutan is not your average third world country, shrouded in the generally presumed drawbacks. Bhutan is a third world country, which has a different approach to development other than just upping the GDP scale is all about development that touches everyone equally. In this the RMA’s steadfast determination in digitalizing and rolling out financial services and has been progressively very telling.

## **To frugal (economy), and beyond**

As per the International Monetary Fund (IMF)’s predictions, the world could experience the worst recession since the 1930s this year (2020) with the global economy contracting by 3% as advanced economies shrink by 6.1%. The World Trade Organization (WTO) expects global trade to fall by as much as 32% in 2020. The Organisation for Economic Co-operation and Development (OECD) reports that inequality in the world’s most developed economies is at its highest level in 50 years. The World Meteorological Organization recently warned that over the next five years, annual global temperatures could potentially rise more than 1.5 degrees Celsius above preindustrial levels, leading to catastrophic climate change.

The aftermath of a global financial crisis (of the 2008) and its prolonged effects on people’s purchasing power; the increasing sense of concern and responsibility among these people for environment and other global climate issues; and finally the sudden attack of a global pandemic whose negative effects on people’s health and the health of the economy which continues to prolong as we speak, and is predicted (by WHO) to linger for years — all these have cumulatively fuelled the need and the rise for an alternative system to operate national economies –frugal economy standing out more and more favorably- so that the fear of the unknown doesn’t hold to ransom life, liberty and freedom, every time something unanticipated strikes. The excuses can be the

best to justify why we are caught helplessly off-guard, but in the end there is no joy in embracing misery – be they the ones that came suddenly but was not of our making, or be they the ones we wilfully accept since we had a hand in its making.

### **A change for the better, not to adjust with the changes better or worse:**

People want to earn money, they want to save that money, at least enough to get by with a basic and decent livelihood. In an age of living with unrestrained effects of climate change and disasters thereof, these people also want to minimize the ecological impact caused by their behavior. And in that aspect of processing thoughts and actions toward availing products and services, people need to reinvent and upgrade from near-obsolete dysfunctional systems to make it more efficient and agile, socially inclusive, and ecologically beneficial.

If we are to think bigger and act bolder, efforts need to be channeled in building and supporting drastically new industry value chains – truly beneficial to people, society, and the planet. We need a new operating system, we need a system that strives to create more economic, social, and ecological value while simultaneously and wisely optimizing use of available resources. We need a frugal economy.

# Don't Let Social Media Harm Your Happiness

Recent study shows misuse can lead to depressive symptoms, increase loneliness.

While creating robust real-life social networks can be a well-being enhancer, a recent study suggests our virtual social networks can have the opposite effect.

In the recently released World Happiness Report 2019, by 2018, most adolescents had access to a smartphone, and they were online 'almost constantly. When there is an increase in digital media, especially for young people, there is a decline in sleep, exercise, social interactions and attending religious services compared to those who do not spend so much time in a virtual reality.

When we spend hours on apps, such as Facebook, Instagram and Snapchat, passively scrolling through our feeds and negatively comparing ourselves to "one-sided" views of other people's lives, we are doing serious harm to our well-being. The fear of missing out (FOMO)—which is witnessing people in your network having a good time without you—also contributes to negative feelings. When you use too much social media, you feel like your own life doesn't measure up and you are feeling that you are not always invited to things that everyone else is invited to.



**So how can we use social media in way that doesn't make us sad? Here are three helpful suggestions from experts:**

**Seeing is not always believing.** Most of what we see on social media is not real. Not to say that it is necessarily staged, but people rarely post negative images of themselves. We are only getting the intended perspective, and we tend to compare ourselves negatively to something that isn't accurate. You are looking at someone else's Instagram feed and its very curated, everyone looks very happy and they are only posting the photos that are actually flattering. And so you get a very one-side perspective on other people's lives. And it's very easy to conclude that your own life just doesn't measure up? It is not as fun, not as glamorous, you are not doing as much.

**The real thing is always better.** Mindlessly scrolling through social feeds not only wastes your time, it further isolates you from the people you are trying to catch up with virtually. Try spending more time reconnecting with people in person. Maybe someone you know needs a real conversation instead of a virtual chat or text. One of the things to remember about closeness is that closeness is fostered by sharing the bad times with people as well as the good times with people. And there is something about social media that doesn't encourage that.

**Put yourself on restriction.** Quitting social media cold turkey is unrealistic, especially with younger generations who grew up attached to their phones. May be half hour a day. By spending less time FOMO-ing, we're are more likely to get out in the real world and take part in activities that benefit our well-being, such as taking a walk or volunteering.

# The What and Why of Hydroponic Farming

What is hydroponics?  
How does it work?  
How does hydroponic farming compare to traditional farming?



## What is Hydroponics?

Hydroponics is a way to skip the soil, substitute in a different material to support the roots of the plant, and grow crops directly in nutrient-rich water.

## Why Grow Without Soil?

This seemingly subtle shift in how food is made (skipping the soil, that is) is actually revolutionary — it allows growers to produce food anywhere in the world, at any time of the year, and to net higher yields with fewer resources.

## Grow Anywhere

Growing seasons and regions are in major flux right now as temperatures change and growing conditions change along with them. Even in “normal” conditions, there are plenty of places where the ground just isn’t conducive for farming (like deserts, concrete jungles, etc). Using hydroponics, it’s possible to put a farm directly behind restaurants that want ultra-fresh produce! And when you’re growing hydroponically, you don’t have to hit pause for a season or risk crop loss from inclement weather.

## Higher Yields

Plants grown in well-managed hydroponic systems are living the good life. Since roots are bathed in all the nutrients they need, plants spend more time growing upward and less time and energy growing extensive root systems to search for food. Growth rates vary based on the type of system and quality of care, but hydro plants can mature up to 25 percent more quickly than the same plants grown in soil, with increased crop yield.

## Fewer Resources

Hydroponic systems actually use *less* water than traditional soil-based systems. This is because closed systems aren’t subject to the same rates of evaporation. Plus, the water used in hydroponic systems can be filtered, re-populated with nutrients, and fed back to plants again so that water is constantly being recycled instead of wasted!

## Easy Troubleshooting

With a hydroponic system, you know exactly what conditions your plants are being grown in. Once you find the perfect formula of light, pH balance, and nutrients, you can replicate success without getting any pest problems.



Hydroponic farming could be the next level for agriculture in Bhutan. Currently, the Agriculture Research and Development Center in Monggar is carrying field research on growing high-value crops using the technology.



If successful, officials said the knowledge would be disseminated to the interesting ones like youth groups, lead farmers and entrepreneurs, making next level of farming available in the Bhutanese agrarian society that we are not familiar with.

# The National Day of Bhutan

Bhutan wears the peaceful and harmonious state-of-the-nation all Bhutanese see and enjoy from a precious day to the next day. The world outside observes this too. But just like any other nation, Bhutan has its history too – and a glorious one at that – which magnifies its current standing all the more.



## Bhutan History

The proverbial calm is always preceded by a comparative storm. And in history for Bhutan, the state of stormy affairs is vividly pictured by its warring avatar in the medieval days when chaos reigned high and calm was only the occasional visitor. The climb up to the unification of the nation with the Zhabdrung at its helm is a chief series of years to denote the era. Then followed the war of chieftains, the many who commanded small fiefdoms. And in their ambitions to guard their own or in their attempts to annex others', the period was marked by numerous civil wars. This was the period that tempered and raised the legendary historical figures of the nation like Jigme Namgyal whose life history pretty much set in course the events that laid the foundation for his son Ugyen Wangchuck to consolidate power and bring a state of calm and order once and for all in that era.

With a final battle fought and won at Changlingmethang, known as the Battle of Changlingmethang, it demonstrated Ugyen Wangchuck's uncontested influence and power over all of the nation signifying a golden opportunity -- following constant upheavals, skirmishes and civil wars – to once and for all cement a harmonious rule under one leader behind which the entire nation remains united.

And so, a King was crowned, unanimously elected to institute a line of hereditary monarchs who would successively down the line govern nation and people, uphold law and order, and bring peace and prosperity for all times to come.

## A king is crowned, a nation is united

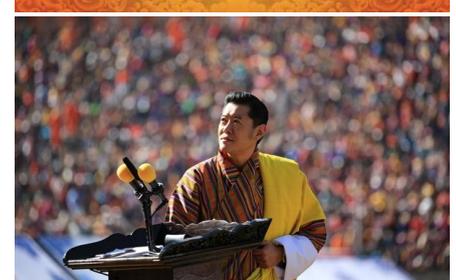
The coronation of Ugyen Wangchuck as the first Druk Gyalpo of Bhutan took place on 17 December 1907, in the hallowed congregation hall of the Pungthang Dewachenpoi Phodrang or the Punakha Dzong.

## December 17, 1907

Immortally celebrated as the day the First King of Bhutan Ugyen Wangchuck was crowned, is the culmination of all that blood, sweat and tears that hailed a nation -- raised it from the ground up, strong and invincible -- striking and cementing glorious form and presence back in the day, observed and celebrated with equally passionate emotion and deed to this day, on The Day.

## The First National Day... and then on and on

The National Day was celebrated for the first time on 17 December 1971, sixty-four years after King Ugyen Wangchuck was crowned. It is the most significant national event celebrated across the nation. Ever since then, the National Day celebrations have continued to be observed every year—each celebrations more intricately elaborate and festive. The highlight of the day over the years have always been His Majesty's National Day address, which with all the grandeur and presence weightily attributes great national significance to the nationally significant day.



# The Basics of HIV Prevention

## How is HIV transmitted?

The person-to-person spread of HIV is called [HIV transmission](#). HIV can be transmitted only in certain body fluids from a person who has HIV:

- Blood
- Semen
- Pre-seminal fluids
- Rectal fluids
- Vaginal fluids
- Breast milk

HIV transmission is possible if these fluids come in contact with a mucous membrane or damaged tissue or are directly injected into the bloodstream (from a needle or syringe). HIV can also spread from a woman with HIV to her child during pregnancy or breastfeeding.

You can't get HIV from casual contact with a person who has HIV, such as a handshake, a hug, or a closed-mouth kiss. And you can't get HIV from contact with objects such as toilet seats, doorknobs, or dishes used by a person who has HIV.

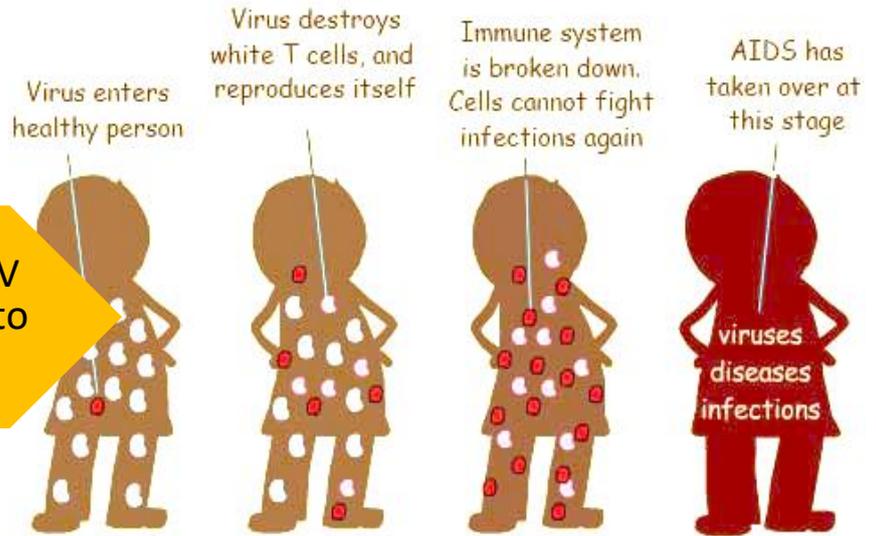
## How to reduce the risk of getting HIV?

Anyone can get HIV, but you can take steps to protect yourself from HIV.

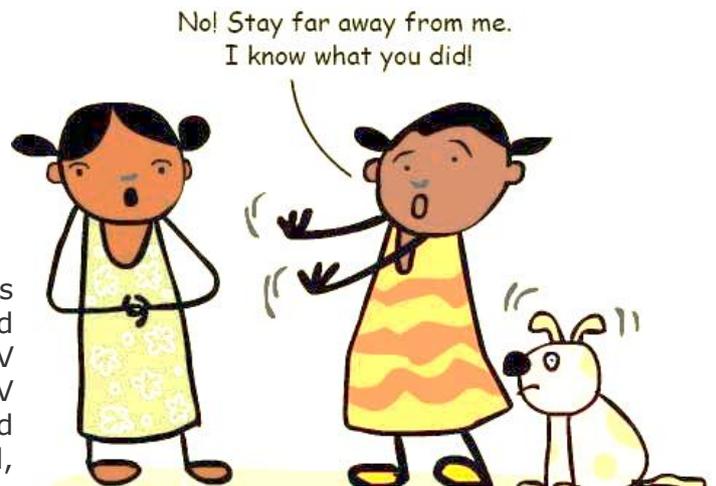
- **Get tested for HIV.**
- **Choose less risky sexual behaviors.**
- **Use condoms.**
- **Get tested and treated for STDs**
- **Don't inject drugs.**

## What is Stigma?

AIDS-related stigma and discrimination means prejudice, negative attitudes, abuse and maltreatment directed at people living with HIV and AIDS. Stigma towards people living with HIV is very wrong. This is because not everyone had the virus from wrong behavior. If even they did, we are all human and we all make mistakes. We therefore have to accept them and love them, BUT try not to engage in any risky behavior.



How HIV turns into AIDS





## CORONAVIRUS, SOCIAL AND PHYSICAL DISTANCING AND SELF-QUARANTINE

### What is social distancing?

The practice of social distancing means staying home and away from others as much as possible to help prevent spread of COVID-19. The practice of social distancing encourages the use of things such as online video and phone communication instead of in-person contact.

### What is physical distancing?

Physical distancing is the practice of staying at least 6 feet away from others to avoid catching a disease such as COVID-19.

### How can I practice physical distancing?

Wear a [face mask or covering](#) when you are not in your home and whenever you are around people who are not members of your household. Maintain at least 6 feet of distance between yourself and others. Avoid crowded places, particularly indoors, and events that are likely to draw crowds.

Other examples of social and physical distancing to avoid larger crowds or crowded spaces are:

- Working from home instead of at the office
- Closing schools or switching to online classes
- Visiting loved ones by electronic devices instead of in person
- Cancelling or postponing conferences and large meetings

### What is self-quarantine?

People who have been exposed to the new coronavirus and who are at risk for coming down with COVID-19 might practice **self-quarantine**. Health experts recommend that self-quarantine lasts 14 days. Two weeks provides enough time for them to know whether or not they will become ill and be contagious to other people.

You might be asked to practice self-quarantine if you have recently returned from traveling to a part of the country or the world where COVID-19 is spreading rapidly, or if you have knowingly been exposed to an infected person.

Self-quarantine involves:

- Using standard hygiene and washing hands frequently
- Not sharing things like towels and utensils
- Staying at home
- Not having visitors
- Staying at least 6 feet away from other people in your household

Once your quarantine period has ended, if you do not have symptoms, follow your doctor's instructions on how to return to your normal routine.

### What is isolation?

For people who are confirmed to have COVID-19, **isolation** is appropriate. Isolation is a health care term that means keeping people who are infected with a contagious illness away from those who are not infected. Isolation can take place at home or at a hospital or care facility. Special personal protective equipment will be used to care for these patients in health care settings.

### Lessening Coronavirus Impact

It's important to know [what to do if you feel sick](#). The coronavirus pandemic is making everyone aware of handwashing and protecting others from coughs and sneezes. Along with those essential steps, practices such as social and physical distancing, and self-quarantine and isolation when appropriate can slow the rate of infection in a city, town or community.

The pandemic can seem overwhelming, but in truth, every person can help slow down the spread of COVID-19. By doing your part, you can make a big difference to your health, and that of others around you.

# Reduce the risk of **Coronavirus Disease 2019 (COVID-19)** infection at workplaces.

Promote regular and thorough hand washing or use alcohol based hand rub.



Surfaces like (desks, tables) and objects like (telephones, mobile phones, computers) should be wiped with disinfectant regularly.



Follow cough etiquette.

Advise those who are sick to stay home.

For information on COVID-19, Call MoH at toll free no.2121

# Unsung heroes

Smallpox emerged 10,000 years ago, which spread slowly along trade routes. Smallpox killed Greeks in the Peloponnesian war, wiped out entire villages in nations as diverse as India and Japan. Dr. Edward Jenner observed that milkmaids who had suffered from cowpox seemed to be protected from smallpox. Therefore, he made a vaccine from the cowpox virus and he gave it to everyone. The vaccine had some rare but serious side effects. WHO noticed that since smallpox is spread between humans, which meant if transmission could be stopped, then smallpox could be eradicated from the earth.

Smallpox killed 300 million people in the 20th century alone. A simple needle split at the end helped save millions of lives. In the process of eliminating smallpox the need to vaccinate against smallpox arose. Smallpox was eradicated in 1980, the biggest achievement in international public health. However, some anti-vaccine groups claim all kinds of side effects of vaccination. For example epidemics of Haemophilus influenza type B disease disappeared within ten years of vaccine being introduced. However, public health is not only about vaccines. It's more than that. One of the leading causes of deaths from injuries is motor vehicle accident. Thus, road injuries/deaths is also a major public health issue.

Tuesday (December 1) was World AIDS day. Researchers who were awarded the Nobel Prize for their work made the discovery of HIV remarkably quickly. They discovered HIV, the virus that causes AIDS in January 1983 which was alarming epidemic in late 1982. Françoise Barre-Sinoussi and Luc Montagnier published their findings in May 1983 and the first commercial blood test to detect HIV became available in 1985, which was a major public health victory.

However, AIDS has killed around 37 million people as of 2018, which is the population size of Tokyo. Half HIV infected ones do not know that they are infected. They are unknowingly progressing towards AIDS. In Bhutan, 599 cases are unidentified according to UNAIDS. Many of them are unknowingly transmitting the infection to others meaning massive testing is crucial in controlling this epidemic. This disease has produced millions of AIDS orphans. Good news is that we are making progress through testing, treatment and prevention creating a path towards ending this disaster. Social



rejection and serious discrimination is prevalent with AIDS patients. This epidemic will never end unless stigma is radically reduced. Political leadership and government action are central to winning or losing the fight against AIDS.

In this light, public health encapsulates disease investigation, preparedness, emergency response, nursing and environmental health. Overcrowding of human populations, transportation ways, and globalization contribute to epidemics. Scientists, physicians and public health experts are attempting to implement the general strategy of monitoring and tracking viruses and other disease causing agents. Their goal is to respond before disasters develop with lessons from HIV, Ebola, Influenza, Measles, Polio, Mumps, Hepatitis, Herpes, HPV, SARS, MERS and more recently, the novel corona virus. Fresh news is that the UK becomes the first nation to approve Pfizer/BioNTech's Covid-19 vaccine for widespread use.

Public health workers are invisible. Although these heroes are not visible to the public, but they still do a lot of work behind the scenes. The power of public health is to save millions of lives.

We have our highest appreciation to the public health workers. Our unsung heroes, indeed!

Courtesy: Subash Sharma, Samtse

# YOUTH

## Incorporating the young

In the event of unavoidable need to close national borders, impose lockdowns etc. as part of the various measures enforced sequentially, impending tremors were bound to hit the national economy in its various sectors. The dearth of workers to carry out works in various areas owing to the vacuum created by foreign/non-national workers is first in this line of sight.

But meanwhile, with the COVID-19 Pandemic displacing people from jobs, or jobs from people, the youth have made themselves visible and helpful in many areas, be it to fill the shortage of workforce where earlier foreign workers did the job or be it in doing things anew in spaces that were pre-COVID not sufficiently frequented.



**Filling in for manpower:** When the border closures created a shortage of labor since September, at the Food Corporation of Bhutan (FCB) Gelephu, a group of 4 youth got themselves employed to make up for the deficit in draught power. The volunteering youth unloaded about nine truckloads of consignments in a day which are goods diverted to Gelephu after Phuentsholing was declared a red zone. The youth volunteers mainly engaged in unloading essential commodities brought in from India ensures supply to other dzongkhags.



### Excerpts from His Majesty The King's Address to the People of Bhutan on 12 September 2020

*... Moving forward, to further build on our achievements, we must now muster the active involvement and support of our youth. Demographically, we have a large proportion of young people who can make a significant difference if given the opportunity. The youth of Bhutan embody vigour and energy, and they are ready to serve without fear or hesitation when needed. I am always profoundly heartened when I hear their aspirations and see their enthusiasm.*

*... At a time when our youth are ready to serve, we can translate this prospect into reality for the long-term benefit of the nation, and achieve the extraordinary.*

*... What the youth of Bhutan achieves over a year or two during the COVID-19 pandemic, will remain as a mark of triumph— an invaluable asset and a lasting legacy for future generations.*

*... We look to the youth of Bhutan to come forward – in this hour of need – so that, beyond overcoming the challenges posed by COVID-19, we build a stronger nation.*



**Opening up to new terrains:** Amidst huge shortage of workers, around 156 Bhutanese youth expressed interest to work at the PHPA hydropower project sites out of which 30 came forth to work. The number for more youth joining is likely to see gradual uptick.

Amidst a globally spiraling COVID-19, close to 2,000 Indian workers decided to return home creating for the hydropower projects a huge shortage of workers. Unable to bring in substitute workers the Management of PHPA II floated vacancies for Bhutanese youth.



**Constructing Bhutan with Build Bhutan:** When the construction sector suddenly faced a very conspicuous shortage of workers of every sorts the government launched Build Bhutan Project (BBP). A total of 2,001 have registered as of August to take part in the BBP.

Currently, more than 200 youth are employed with the scheme. The Nu 1,040 million BBP was launched in July 2020 to address the shortage of workers in the construction sector. The youth are placed in various construction categories of building construction; repair and maintenance; physical infrastructure; and construction of roads and bridges.

**Druk Kha Ray:** When face masks became the much demanded scarce commodity, tailor Dargay started Druk Kha Ray. With support from the Loden-UNDP COVID-19 Response Fund (announced on 28 March, 2020) Dargay contributes to providing face masks to Bhutanese, prevent spread of the pandemic while also reducing import of face masks.



**Vegetables on Wheels:** Sangay Nedup who runs Bhutan Smart Shop, a grocery store for walk-in and



online customers delivers locally grown vegetables to Thimphu residents. He is supported by the Loden-UNDP COVID-19 Response Fund in his delivery venture that helps maintain COVID-10 protocols like avoiding crowds and physical distancing.

**Greener Way:** Bhutan's first waste management company, Greener Way has been collecting waste from Thimphu for more



than 10 years. With increasing number of quarantine facilities in the country, particularly in Thimphu, founder Karma Yonten is working with the MoH and Thimphu Thromde to ensure safe collection and disposal of infectious waste coming out from the quarantine facilities and clinics. The waste company supported by the Loden-UNDP COVID-19 Response Fund bought a vehicle to collect wastes from the quarantine facilities.



**Rigpah:** Namkhar started Rigpah an online educational platform for students and educators in 2018. He is tuning the e-learning platform to achieve maximum utility in the face of COVID-19's disruption of regular classroom-learning. Working with educators to develop learning materials he makes these resources accessible to students. Free access to Rigpah's content for rural students beyond 2020 is supported through the Loden-UNDP Bhutan COVID-19 Response Fund.