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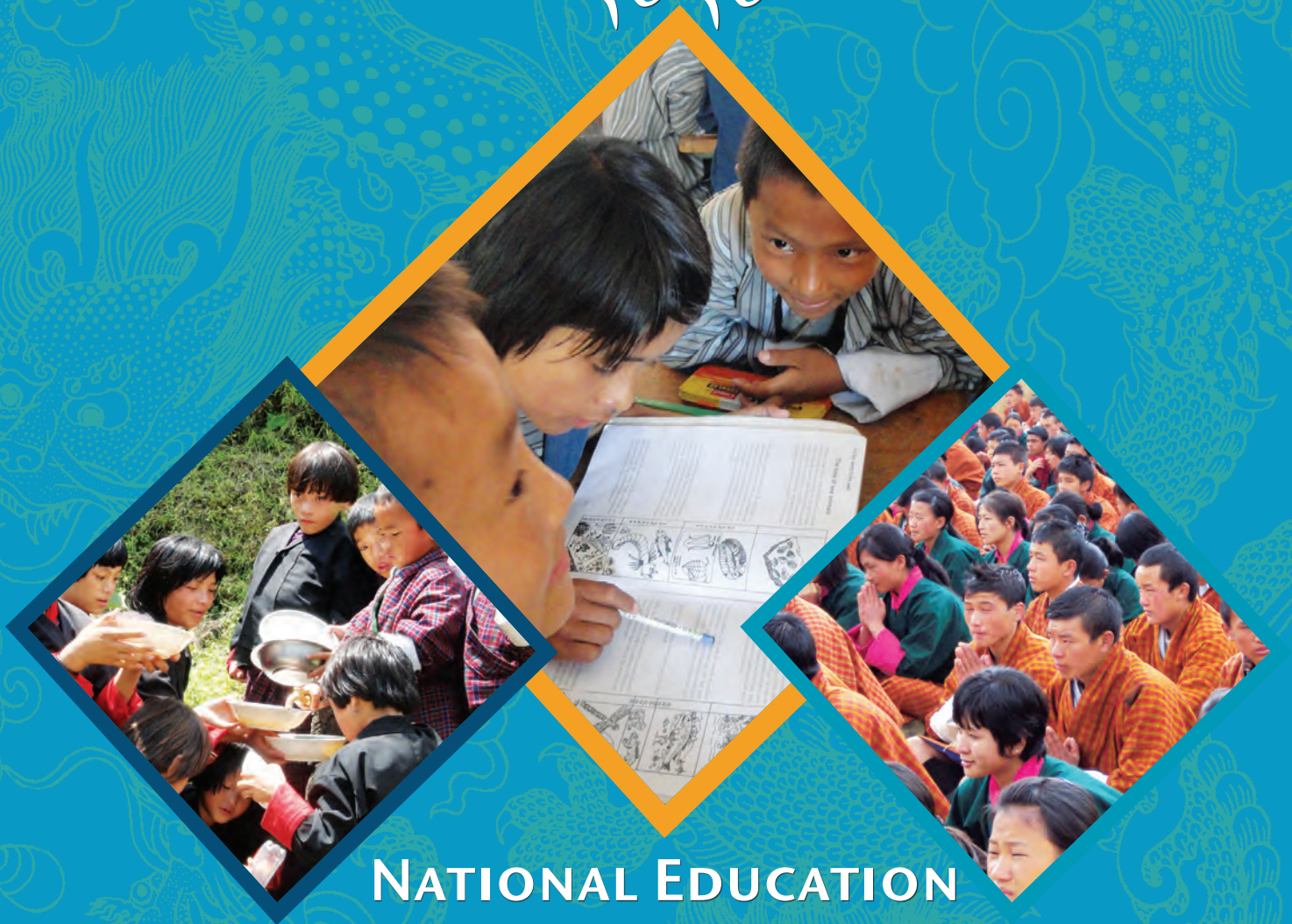

National Education Assessment Framework 2020

Bhutan Council for School Examinations and Assessment
Royal Government of Bhutan

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National Education Assessment Framework 2020

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"As a small country, unencumbered by the complexities faced by much larger countries, we can do things faster and better than others. Our institutions can be smart, flexible, responsive, dynamic and efficient. It is my aspiration that, when my son Jigme Namgyel, grows up and when his generation, which includes your children, come of age, they will be able to actualize their full potential and contribute to nation building."

- His Majesty's address at the 14th Convocation of the Royal University of Bhutan, May 25, 2019

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FOREWORD

The vision of the Ministry of Education (MoE) is to create an educated and enlightened society guided by the principle of Gross National Happiness (GNH). Towards this, the priority of education system is to enable the creation of a knowledge-based GNH society and to equip students with appropriate knowledge, skills, and values and attitudes to make them nationally rooted and globally competent.

In the recent years, MoE initiated multiple educational policies reforms and programme interventions, of which, one of the outcomes was to revamp the national education assessment system. In light of this, Bhutan Council for School Examinations and Assessment (BCSEA) embarked on reforming the education assessment system to enhance the learning outcomes of Bhutanese students to a level comparable to high performing international education systems.

Hence, the National Education Assessment Framework (NEAF) was developed to guide BCSEA in the conduct of the National Education Assessment (NEA) at various key stages of learning across the country. This will enable in monitoring the health of the education system and in obtaining substantial empirical evidences for policy reforms. It will also help MoE to achieve its aspiration in making students realize their full potential to become socially useful and economically productive citizens.

This framework is robust in nature as it is not only guided by the sound principles and best practices of large-scale assessments but also aligned with the Constitution of the Kingdom of Bhutan, the vision of His Majesty, the National Education Policy 2020, and other strategic policy documents that express the aspirations of our nation.

The special features of this NEAF includes the assessment of 21st century competencies in the context of Nine Student Attributes (Bhutan Education Blueprint 2014-2024) and the assessment of children with disabilities (CWDs) addressing equity. This will assist in fulfilling the mission of MoE to "provide equitable, inclusive and quality education and lifelong learning opportunities to all children and harness their full potential to become productive citizens."

It is my hope that this initiative will guide us in making the school education system dynamic and responsive to the changing local, national, and global needs and also in providing insights into the Education Pathways for 21st century and beyond.

I commend the BCSEA Core Team, Technical Team (MoE, REC, RUB, and ACER-India), funding partner (GPE), coordinating agency (UNICEF) and grant agent (SCI) on the successful development of the NEAF.
My best wishes to BCSEA for the successful implementation of NEA.

Tashi Delek!

Jai Bir Rai

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FOREWORD

The National Education Assessment Framework (NEAF) is the first of its kind developed by BCSEA with technical support from Australian Council for Educational Research (India) under the Education Sector Program Implementation Grant funded by the Global Partnership for Education.

There is a general recognition within the system that a technically robust NEAF is required to conduct NEA efficiently. It is the key to building stronger and fairer school systems. Great emphasis is given to the importance of seeing assessment not as an end in itself but as an important tool for achieving improved student learning outcomes.

Information on student learning outcomes are critical to make informed policy decisions in the education system and to provide feedback for the improvement in student learning.

This framework lays down comprehensive guidelines for the conduct of NEA at grades III, VI and IX across the four core domains (Dzongkha Reading and Writing Literacy, English Reading and Writing Literacy, Mathematical Literacy and Scientific Literacy).

With numerous capacity building workshops received in the course of NEAF development, it is expected that the assessment instruments, processes and outcomes will be valid and reliable.

The first cycle of NEA will be conducted in 2021 at grade III and I hope that all relevant stakeholders will support us in this endeavour.

Tashi Delek!

(Jamyang Choeden)
Director

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ABBREVIATIONS AND ACRONYMS

ACARA	Australian Curriculum, Assessment and Reporting Authority
ACER	Australian Council for Educational Research
AMD	Assessment and Monitoring Division
ASSL	Annual Status of Student Learning
BBE	Bhutan Board of Examinations
BCSEA	Bhutan Council for School Examinations and Assessment
CBAT	Competency Based Assessment Test
CRC	Convention on the Rights of the Child
CRT	Constructed Response Task
CSO	Civil Society Organization
CWD	Children With Disabilities
DEO	Dzongkhag Education Officer
DOK	Depth of Knowledge
ESPIG	Education Sector Programme Implementation Grant
GDP	Gross Domestic Product
GNH	Gross National Happiness
GPE	Global Partnership for Educaiton
ICF	International Classification of Functioning Disability and Health
ICT	Information and Communications Technology
IRT	Item Response Theory
ISCED	International Standard Classification of Education
LO	Learning Outcome
LSS	Lower Secondary School
MCQ	Multiple Choice Question
MoE	Ministry of Education
MoS	Measure of Size
MTEG	Monitoring Trends in Educational Growth

NAPLAN	National Assessment Program – Literacy and Numeracy
NEA	National Education Assessment
NEAF	National Education Assessment Framework
NGO	Non-Governmental Organization
OECD	Organisation for Economic Co-operation and Development
PCAP	Pan Canadian Assessment Programme
PHCB	Population and Housing Census of Bhutan
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
PISA-D	PISA for Development
PPS	Probability Proportional to Size
REC	Royal Education Council
RGoB	Royal Government of Bhutan
SCI	Save the Children International
SDG	Sustainable Development Goals
SEN	Special Educational Needs
SES	Socio Economic Status
SRS	Simple Random Sampling
TEO	Thromde Education Officer
TIMSS	Trends in International Mathematics and Science Study
UIS	UNESCO Institute for Statistics
UNCRPD	United Nations Convention on the Rights of Persons with Disability
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational Scientific and Cultural Organization
UNICEF	United Nations International Children's Fund
WHO	World Health Organization

EXECUTIVE SUMMARY

The NEAF is a guide for a systemic conduct of NEA which is a periodical monitoring of the health of the education system. It provides scope for making informed data-driven policy decisions to support and improve the learning outcomes of students.

His Majesty's address at the 3rd Convocation (2009), *"The nation's vision can only be fulfilled if the scope of our dreams and aspirations are matched by the reality of our commitment to nurturing our future citizens."* Further the Constitution of the Kingdom of Bhutan states, "The State shall endeavour to provide education for the purpose of improving and increasing knowledge, values and skills of the entire population with education being directed towards the full development of the human personality." Thus, the NEAF sets out to fulfil these aspirations through the conduct of periodic NEA.

With the progressive transition of the country's education system from monastic type to the modern, Bhutan has seen huge advancement in the area of examinations and assessment. BCSEA was instituted and given a mandate in 2011 to be the watchdog of our education system. Currently, various types of national assessments and public examinations are conducted by BCSEA at various key stages of student learning.

Since 2004, the NEA has been conducted several times in Bhutan. The results of NEA, 2013-14 and Programme for International Students Assessment for Development (PISA-D) conducted in 2017 indicated a number of concerns about the quality of education in the country. The need to revamp assessment system is also highlighted in the Bhutan Education Blueprint 2014-24, stating that the assessment system in Bhutan has enabled students to replicate content knowledge only. Consequent upon these findings, a robust framework is developed to mitigate the challenges in conducting valid and reliable NEA.

Along with presenting the underlying theory and the design of the NEA, this framework addresses the issues of the earlier NEA cycles.

It provides critical information on the instrument development, sampling procedures, assessment design, data analysis plan, reporting and dissemination.

Broad Objectives of the NEA

- Gather reliable data that can be used to identify trends and growth in the educational achievement over a period of time.
- Monitor the health and quality of school education and provide timely feedback to guide policy development and intervention design.
- Provide independent review of students' achievement in relation to curriculum standards.

Key Features of the NEAF

- A clear description of the aims and objectives of the assessment, and a clear definition of each domain to be assessed.
- Description of the types and proportions of knowledge, skills, values and attitudes as well as learning outcomes.
- Inclusion of 21st Century Competencies in the context of Nine Student Attributes.
- Contextual factors that correlate with student achievement.
- Test design, including, item format, duration of the test, number of test booklets, number of items in each test booklet, and the number of linking items within and across the grades.
- Universal inclusion through appropriate accommodations for CWDs.

Assessment Design and Reporting

Grades III, VI, and IX have been selected as target groups for the NEA, which will be carried out once in every three years. As is evident, the gap between the selected grades is three years, which is equal to the gap between subsequent cycles of the NEA. This approach serves two purposes simultaneously – on one hand, the same cohort of students can be tracked from grade III through grade IX and on the other, systemic interventions can be implemented and tracked through the years for evaluation purposes. This design component reduces logistical burden on the system to carry out additional studies for impact assessment.

The NEA is designed to assess student learning outcomes in Dzongkha and English Reading Literacy, Dzongkha and English Writing Literacy, Mathematical Literacy and Scientific Literacy. Development of instruments is largely focused on appropriateness, linguistic demand, and mapping to the domain framework as defined in the NEAF. Learning outcomes are then correlated with contextual factors that influence the development of capabilities and attitudes related to the cognitive domains and the Nine Student Attributes.

The framework provides a guideline for developing a detailed sampling plan. Probability proportional to size (PPS) sampling technique is used to select schools and simple random sampling (SRS) is adopted for the selection of students in a school.

Two alternative booklets per domain for each grade are used in the assessment and they are linked horizontally with one another. They are also linked vertically across grades to enable putting all students on the same scale for reporting. Booklet designs are based on the student testing time, item positioning, linking items (horizontal, historical, vertical), item pool, items to be released for public, statistical objectives to be met, and so on.

Student performance is mapped on an empirically developed scale with learning progressions. Meaningful inferences can be drawn from the descriptions given for each achievement level on the scale. A comparison between the performance of subgroups of population as well as that of the same cohort across assessment cycles can also be reported as per requirements.

Contextual Questionnaires

The NEAF provides a conceptual framework for the development of contextual questionnaires to collect background information pertaining to the factors related to student learning outcomes. The model classifies contextual factors as input, process, and outcome. Besides, a set of questions also gathers data regarding 21st Century Competencies in the context of Nine Student Attributes.

To accurately identify and map the relevant context, information are collected through four questionnaires viz. one each for student, teacher, school, and Dzongkhag/Thromde. Through this approach, rich and relevant insights are gathered regarding the factors that affect the competencies and attitudes of students towards their learning, home and school.

Development Process of the NEAF

The NEAF is developed in collaboration with the relevant stakeholders. It is guided by the existing set of policy documents, guidelines, strategic documents, research studies, and the national curriculum. It is also based upon sound principles and best practices of large-scale assessments conducted by experienced global leaders such as the OECD, World Bank, and the ACER.

The development process entailed a thorough review of these policies and strategic documents as well as the curriculum and textbooks from pre-primary to grade XII in the subject areas of Dzongkha, English, Mathematics, and Science. Based on these findings, a wider group of subject experts selected the measurable learning outcomes (LOs) suitable for the NEA.

The framework is endorsed by the Board of Directors, BCSEA, on 5th June, 2019, after a series of consultative meetings with relevant government agencies, development partners, civil society organizations, non-governmental organizations, educationists, parents and youth representatives.

CHAPTER 1: INTRODUCTION

The NEAF consists of 10 chapters. Chapter one provides an overview of the NEA including the objectives and features of a robust NEAF. Chapters two to seven describe the specific domains to be assessed, which are Dzongkha Reading Literacy, Dzongkha Writing Literacy, English Reading Literacy, English Writing Literacy, Mathematical Literacy, and Scientific Literacy. Chapter eight covers the contextual questionnaires which help in drawing further insights into the students' performance in specific domains and information regarding educational policies. Chapter nine covers the assessment of CWDs. Chapter ten highlights the assessment design and cycle of the NEA.

1.1 Overview of the Education System in Bhutan

Bhutan is a unique sovereign nation in the world, as such, while other nations use the Gross Domestic Product (GDP) as a key indicator of their developmental progress, Bhutan uses Gross National Happiness (GNH). This profound approach of the country has undoubtedly influenced the nation's education policies as well.

The Royal Government of Bhutan (RGoB) understands the vital role education plays in the nation-building process and in giving Bhutan its *"distinct identity as a small, peaceful, progressive and happy nation"* (MoE, 2014, p. 10). Since the introduction of modern education in the 1960s, Bhutan has made considerable progress in achieving the objectives of enhancing access to education and ensuring educational quality, equity, and efficiency within the system. Figure 1 depicts the current structure of the Bhutanese education system juxtaposed against the International Standard Classification of Education (ISCED) 2011 and key stages of school education.

STRUCTURE OF THE EDUCATION SYSTEM IN BHUTAN			EDUCATION PROGRAMMES	MAPPING WITH ISCED 2011		
KEY STAGES	GRADES	AGE OF STUDENTS	UNIVERSITY/ TVET INSTITUTE	ISCED 2011 LEVEL	ISCED 2011 PROGRAMME CODE	ISCED 2011 ATTAINMENT CODE
Key Stage-5	Grade XI to XII	16 to 17 years	Higher Secondary Education	Upper Secondary Education (3)	344	344
Key Stage-4	Grade IX to X	14 to 15 years	Middle Secondary Education	Lower Secondary Education (2)	244	244
Key Stage-3	Grade VII to VIII	12 to 13 years	Lower Secondary Education			
Key Stage-2	Grade IV to VI	9 to 11 years	Primary education	Primary Education (1)	100	100
Key Stage-1	Pre-primary to Grade III	5 to 8 years	Primary Education			
–	ECCD	3 to 5 years	Early Childhood Care and Development Pre-school programme	Early Childhood Education (0)	020	020

Figure 1: Structure of education system in Bhutan.

Note: Adapted from Bhutan Education Blueprint 2014-24 (p. 31) by MoE, 2014, MoE. Copyright 2014 by MoE;International Standard Classification of Education ISCED 2011 by UNESCO Institute for Statistics, 2012, UNESCO. Copyright 2012 by UNESCO-UIS; National Education Policy by MoE, 2020, MoE. Copyright 2020 by MoE.

The vision for Bhutan from the perspective of education is to create an educated and enlightened society based on the traditional values of *tha dam-tshig* and *ley gyu-drey* (sublime values of solemn devotion and trust based on interconnectedness, relationship and bonding, and cause and effect). Hence, the outcome expected from the education system is to produce citizens with skills and abilities that are an ideal blend of modern and traditional values reflecting the unique Bhutanese identity.

The nation strives to ensure that future Bhutanese citizens are well-equipped to prosper in the 21st century and beyond and also to uphold the Bhutanese identity and value its ancient tradition, culture and wisdom. This requires an inclusive and holistic system of education that builds on its competencies embracing new developments in line with this vision. To realise this vision, the National Educational Policy (NEP) 2020 envisages to create a robust, inclusive, and holistic education system that:

- inculcates the principles and values that underpin the philosophy of GNH, and upholds the nation's unique cultural and spiritual heritage and values; and
- prepares citizens to become knowledgeable, skilful, creative, innovative, enterprising, and capable of responding to national needs and emerging global trends.

The Bhutan Education Blueprint 2014-24 also supports the fulfilment of this vision by outlining a strategy on critical areas that respond to the challenges and changing needs of the education system more holistically. It has strategised educational reforms in three sequential waves in order to ensure that the planned complex interventions are executed systematically and strategically.

The first wave focuses on ensuring that all teachers, principals and schools achieve a minimum quality standard by up-skilling teachers, empowering principals, and providing other supportive measures. The second wave emphasises on change initiatives such as institutional work dynamics and culture. Spillover work from the first wave such as improving student learning outcomes in tune with international benchmarks will also be carried out during this period. The third wave focuses on creating a self-sustaining system that is creative, innovative, and enterprising so that the schools will perform at high levels of effectiveness and efficiency.

The reforms are carried out through eight shifts which are thematically linked to the four important outcomes – access, quality, equity, and efficiency. However, quality is considered the most important aspect and, therefore, it is an underlying theme across all the eight shifts.

1.2 Examination and Assessment Systems in Bhutan

The examination and assessment systems have been an integral part of the education system since the time of the monastic education in Bhutan. These have grown with the development and advancement of the education system in terms of measurement approaches and assessing educational outcomes. The education system in the country is assessed at school level and national level in line with national and international standards.

BCSEA was instituted in 2011, with a mandate to be the watchdog of the education system in the country. BCSEA currently carries out various types of national-level examinations and assessments at four key stages of student learning – grades III, VI, X and XII. At the end of grades III and VI, students appear for a year-end Competency Based Assessment Test (CBAT). In this case, the question papers, model answers, and marking schemes are provided by BCSEA, while the administration and evaluation are carried out by the respective schools as per the examination standards set by BCSEA. The consolidated results are sent by the schools to BCSEA for analysis and feedback. BCSEA also conducts public examinations at the middle and higher secondary levels. These are high-stakes examinations and are administered at the end of grades X and XII.

The NEA is a periodic assessment carried out by BCSEA. The first NEA was conducted in 2004 by the erstwhile Bhutan Board of Examinations (BBE) for grade VI students on Literacy (English) and Numeracy (Mathematics). In 2006, grade VI was assessed in Dzongkha, followed by grade X (English and Mathematics) in 2007. The second round of NEA for grade VI on Literacy and Numeracy was conducted in 2011. Subsequently, grade X students underwent second round of NEA in English and Mathematics in 2013. The test items for the NEA were developed in line with the national standards to cover learning outcomes as well as competencies outlined by the curriculum.

School-level examinations and assessments across the country are conducted as per the national curriculum framework (REC). Scores of these examinations and assessments are used to determine students learning achievements, and to provide timely interventions for improvement.

1.3 The Need for National Education Assessment

International experiences and research indicate that learning assessments are critical tool to promote equity and accountability and to enhance the quality of education systems by providing much-needed information to improve teaching and learning processes at the classroom level (IIEP, UNESCO, 2019). At the system level, standardised learning assessments can assist in making informed policy decisions, monitoring progress towards system targets, designing interventions for marginalised and disadvantaged groups, and ensuring appropriate resource allocation.

Standardised assessments for diagnostic purposes are intended to evaluate the system rather than the students, teachers, or schools at an individual level. Hence, they are designed based on these requirements and are different from other standardised assessments such as high-stakes examinations. Standardised assessments identify knowledge, skills, values and attitudes that students possess and those they lack to close the information loop by recommending courses of action in order to improve the system. On the other hand, high-stakes examinations are designed to capture individual student's performance and to measure how well students have learnt what they have been taught (World Bank, 2008). Consequently, reporting of national level standardised assessments is done at the system level (ex., at national level) whereas public examinations report a snapshot of performance at the individual students' level.

National assessments are used by countries for informing specific policy and system-level interventions. For example, Vietnam used its national assessments to monitor students' learning progress over time and to evaluate the effectiveness of policy initiatives focused on educational quality to help schools meet new school-based standards (Attfield & Vu, 2013). In Australia, the national assessment was used to target in-service professional development programmes for improving teacher and school quality in identified schools. The programmes provided Literacy and Numeracy coaches to work with identified school staff for the improvement in pedagogy (ACER, 2015).

The education policies of Bhutan explicitly state the need to prepare students for the 21st century and embrace changes that meet international standards. Although the access to education has expanded significantly in recent years, the quality of learning still remains a major challenge. A study on the quality of education carried out by the REC (2009) revealed the following findings.

- Student learning outcomes were below the minimum expectations of their grade levels, and they were unable to perform basic Numeracy and Literacy tasks.
- Majority of students were unable to understand core concepts and were also unable to apply knowledge to real-life situations across grades and subjects.
- Students performed better in questions related to recall.
- Gaps existed in procedural learning as students made simple mistakes in questions related to procedural applications.
- Students across grades performed poorly in questions related to visual problems, indicating that students had poor comprehension ability.
- Employers perceived graduates as lacking academic preparation and professional skills to succeed in entry-level jobs.

The findings of the NEA 2013-14 and the PISA-D assessment survey conducted in 2017 showed similar concerns about the quality of educational outcomes. The PISA-D findings revealed that the average solution rate in Bhutan was 45.34% in Reading Literacy, 38.84% in Mathematical Literacy and 45.10% in Scientific Literacy (BCSEA, 2019). When compared to the other seven participating PISA-D countries, the performance of Bhutan's students was ranked between the two highest-performing PISA-D countries (Ecuador and Paraguay); however, the report further stated that a reliable estimate based on the percent correct scores was significantly below the Organisation for Economic Cooperation and Development (OECD) countries and the best education systems in Asia. Therefore, it is evident that the Bhutanese education system needs urgent intervention to upscale the quality of education. One of the immediate measures is to review the current practice of examination and assessment systems to address the gap between the current and expected learning levels of the students. Other interventions such as teaching-learning materials, professional development, and support systems will still remain crucial and require periodical reviews and appropriate interventions.

Realising the gaps in the current education, examination and assessment systems, the Bhutan Education Blueprint 2014-24 highlights the need to revamp these systems to attain desired competencies at various levels. In order to effectively achieve these objectives, the government has identified a need for a standardised nationwide low-stakes diagnostic assessment.

The empirical study on the current status of national assessment system in Bhutan points out a number of challenges and issues with the earlier form of NEA (Gurung, 2015). Therefore, this framework is developed to address those challenges and to align assessment with the vision of education system in Bhutan. Thus, the periodic conduct of NEA is identified as an important tool to achieve this goal.

The following are some of the changes that the NEAF shall bring forth in order to meet the challenges.

- The NEA implemented in the years from 2002 to 2013 did not have the guidance of an assessment framework. As a result, test items were based on the curriculum text books alone. However, this framework presents clear guidelines to the test developers and other stakeholders in conducting valid and reliable assessment cycles based on the measurable learning outcomes at various key stages.
- BCSEA's capacity building in the test item design, scientific sampling, data analysis, and reporting will ensure that the NEA follows a robust assessment cycle.
- This framework will guide test developers in developing test items in each domain and will also aid in developing valid background questionnaires for students, teachers, schools, and Dzongkhags Education Officers (DEOs) and Thromde Education Officers (TEOs).
- Assessment design is remodelled to identify the key stages as well as frequency of testing required in the NEA. Grades III, VI and IX are identified to be tested every three years in the NEA for several reasons. Firstly, testing grade III at the end of key stage 1 and grade VI at the end of key stage 2, will give critical information about students' learning development (See Figure 4). Secondly, this model will enable tracking the development of same cohort of students from grade III through grade IX. Thirdly, grade IX is selected over grade X because the learning gap between grade VI and X is too wide to provide meaningful vertical linking of test items. Further grade X students have board exams at the end of the year, and an additional NEA at that stage would not be suitable.
- This re-design allows for providing comparable analysis of key developmental stages at regular intervals, generating timely and effective policy recommendations for evaluating old programmes, and designing new programmes. Details about this model are provided in Chapter 10.
- A proficiency scale will be developed for each domain across grades to provide progress and growth analysis.
- The proficiency scale will have proficiency descriptors to facilitate a system-level understanding of students' performance and growth over time in terms of skills, knowledge, and understanding in each domain. This information can be used at multiple levels for effective policy formulation and national curricular reforms.
- This framework is inclusive in nature which ascertains that CWDs from all backgrounds are able to participate and benefit from the assessment. The NEA will be made accessible for them through accommodations and adaptations.

- 21st Century Competencies are addressed for the first time in the NEA.
- Alongside the NEAF, Technical Standards are developed to assure adherence to international standards. A sampling plan is developed to obtain scientifically valid samples for the assessment across the NEA cycles.

1.4 Objectives of National Education Assessment

- Monitor the health and quality of school education by providing timely feedback to its key stakeholders.
- Provide information about the achievement levels of students at key stages of learning.
- Monitor educational standards over time on the following aspects:
  - ✓ students achievement level across the grades,
  - ✓ growth between grade levels, and
  - ✓ differences between sub-populations.
- Monitor learning outcomes over time and how they relate to improvements in educational inputs and initiatives which were implemented.
- Guide educational policy developments and interventions to improve learning outcomes and address inequalities in learning outcomes such as those due to differences in socio-economic status.
- Make decisions about resource allocations based on the impact of educational inputs on learning outcomes.
- Provide an external review of student achievement in relation to national standards.
- Identify areas that need support in terms of national curriculum revisions, 21st century teaching and learning strategies, and professional development of teachers.
- Create reliable data that can be used to identify trends in educational achievement and growth over a period of time.

1.5 The Need for a Robust Assessment Framework

An assessment framework is a public document that outlines the assessment programme and explicitly states its characteristics and the principles upon which the assessment is built. It serves a number of purposes for individuals and organisations working on a national assessment. It also informs the public on what an assessment is and how the outcomes are interpreted as stated below:

- **Consistency:** An assessment framework helps to achieve and maintain uniformity in an assessment.
- **Quality Assurance:** It guides the test developers in writing test items according to the given specifications that help in targeting a test to the appropriate group by covering suitable content areas in the right proportions. It also guides the development of contextual questionnaires by defining the framework and identifying the areas of focus for answering relevant policy questions.
- **Reliability:** A reliable assessment ensures that repeated or equivalent assessments produce consistent results. An assessment framework guides the team working on developing assessment tools in constructing reliable test items, test forms, and processes.
- **Validity:** Validity is one of the most important aspects of assessment to ensure that the assessment measures what it is designed to measure. Hence, an assessment framework helps in removing measurement biases as well as distortions from the assessment.
- **Transparency:** The details stated in the assessment framework provide a clear picture of the features and purposes of the testing programme to a wide audience.
- **Comparability:** An assessment framework also documents an assessment plan to ensure consistency from one assessment cycle to the next. As a result, any change in the programme in the future cycles can be compared, recorded, and evaluated.
- **Acceptability:** An assessment framework also plays a role in ensuring acceptance from a wide range of stakeholders to ensure that any information gathered by the assessment and the recommendations are considered.

A robust assessment framework assists in building a valid and reliable test instrument. It also serves as an effective planning tool for monitoring trends in education and comparing the results from different assessment cycles over time to identify areas that need deeper investigation.

The assessment framework is also the document where any changes and deviations from the specified plan are documented along with the explanations and justifications. Thus, it tracks any variations, changes, and recommendations made in a particular testing cycle so that the testing is consistent across cycles and students' performance can be tracked over time.

The key features of a national assessment framework include:

- clear descriptions of the aims and objectives of assessment;
- clear definitions of what students should achieve at the end of an educational programme, such as, reading, writing, listening and speaking literacy, mathematical literacy or scientific literacy;
- clear definitions of different skills, competencies and student attributes;
- learning outcomes to be assessed;
- subject domains, sub-domains, and its content proportions to be assessed;
- types and proportion of skills or competencies to be assessed;
- target population or grade to be assessed;
- difficulty levels of the items;
- descriptions of the test design including the item formats, the duration of the test, the number of booklets to be used, the number of items in each test booklet, and the number of link items to be used across grades and within a grade; and
- contextual factors that correlate with student achievement and the purpose of the analysis.

1.6 Development Process of National Education Assessment Framework

The development of the NEAF is based upon the sound principles and best practices of large-scale assessments conducted by experienced global leaders such as the OECD, World Bank, and ACER. It is built based on the existing educational policies, guidelines, strategic documents, research studies, and curriculum. It also comprehensively incorporates curricular and cross-curricular knowledge, understanding, and competencies that can be used as indicators of students' achievement levels, as formulated within the policy goals. These competencies are cross-curricular and beyond the textbooks in testing students' ability to apply knowledge and skills in unfamiliar complex situations.

For the development of NEAF, the BCSEA Core Team and the National Review Team were constituted. The framework is developed in consultation with teachers, principals, DEOs and TEOs, Civil Society Organisations (CSOs), Non-governmental Organisations (NGOs), UNICEF, SCI-Bhutan, GNHC, Local Government, parents, youth representatives, educational experts from REC, RUB and MoE with technical assistance from ACER, India.

The development process began with a thorough review of the documents and textbooks from pre-primary to grade XII in the subject areas of English, Dzongkha, Mathematics, and Science. Measurable learning outcomes for each key stage were also identified and shared with the wider subject expert groups for feedback and suggestions. Prior to the finalisation of the document, a series of orientation, familiarisation, and consultation workshops were carried out. On 5th June, 2019, the framework was endorsed by the Board of Directors, BCSEA.

1.7 Reporting and Dissemination of the National Education Assessment

The NEA findings serve a range of stakeholders, hence reporting of the assessment outcomes need to be customised to serve the requirements of diverse audiences. Generally, key stakeholders interested in NEA report include policymakers, curriculum developers, education officials, and DEOs/TEOs, school leaders, teachers, parents, students, general public, and mass media. As each of them may want to get information at different levels, reporting can be done at various depths. However, in the first cycle, it is decided that the NEA will be reported at the national and Dzongkhag/Thromde levels.

All assessment tasks are mapped to specific learning outcomes and competencies in the item development phase. During the data analysis phase, the tasks are further arranged along a proficiency scale using Item Response Theory (IRT) indicating their level of difficulty and the level of skill required to answer each task. At the end of the assessment cycle 2021, the results will be reported quantifying the proportion of students at various levels of proficiency along with a description of the skills and knowledge associated with each level. Student performance and information drawn from contextual questionnaires will be incorporated into reports and disseminated for use by a wide range of stakeholders.

During the implementation of the first cycle in 2021, only grade III students will be assessed, and reports will be generated accordingly. In the subsequent cycles, grades VI and IX will also be assessed, thus successive reports will contain comparable information pertaining to the performance across the grades participating in an assessment cycle as well as across the assessment cycles. Monitoring of each cohort participating in assessment cycles across years shall be achieved using a set of techniques such as scale building, horizontal and vertical linking of test forms, etc. For example, the cohort of grade III students assessed in the first cycle will be assessed when they reach grades VI and IX subsequently in assessment cycles two and three. This tracking of each cohort will enable reporting on the progression of student learning as a result of a new policy or intervention.

1.8 Key Components Assessed in National Education Assessment

1.8.1 Assessing Cognitive Skills

In the first cycle of NEA, grade III students will be assessed on Dzongkha and English Reading Literacy and Mathematical Literacy. For grades VI and IX, additional domains such as Dzongkha Writing Literacy, English Writing Literacy and Scientific Literacy will be assessed. When necessary arrangements (time, human capacity, and other resources) are in place, Dzongkha and English Listening and Speaking Literacy, Computation & digital skills, Social Sciences and NEA for grade XII will be assessed. The grades and cognitive domains to be assessed are given in Table 1.

Table 1: *Cognitive Domains for Various Grades*

Grade	Cognitive domains
III	• Dzongkha and English Reading Literacy • Dzongkha and English Listening and Speaking Literacy • Mathematical Literacy
VI	• Dzongkha and English Reading Literacy • Dzongkha and English Writing Literacy • Dzongkha and English Listening and Speaking Literacy • Mathematical Literacy • Scientific Literacy
IX	• Dzongkha and English Reading Literacy • Dzongkha and English Writing Literacy • Dzongkha and English Listening and Speaking Literacy • Mathematical Literacy • Scientific Literacy

It is important to note that the assessment of the Writing Literacy domain at grade III in the NEA is excluded. The rationale being level-domain appropriateness, as this grade does not have the necessary skills of writing (REC, 2013). At this stage, the focus is more on the lower level transcription skills of early childhood writing dimension that includes handwriting and spelling while higher level executive skills such as generating ideas, organizing, and composing are just introduced to them. Besides, the performance of students in reading literacy in NEA can be used to infer about their writing ability as research shows that there is a very significant correlation between the writing skills and reading abilities (Lonigan & Shanahan, 2009).

While one skill may not stand in for another, researches suggest that they have a high degree of correlation. They suggest that reading skill is highly correlated to listening skill and same pattern can be noted between writing and speaking skills (Bozorgian, 2012; Liu & Costanzo, 2013). These two studies also suggest that reading and writing skills correlate with overall language proficiency.

These considerations recommend that the best course of action for an education system is to use large-scale assessments to assess Reading and Writing Literacy and use techniques like classroom assessments for other skills. This practice is also consistent with global best practices in large-scale assessments. Large scale assessments, whether international (PISA, Progress in International Reading Literacy Study (PIRLS), etc.) or national (Monitoring Trends in Educational Growth (MTEG)) do not assess the Listening and Speaking domains.

1.8.2 Assessing 21st Century Competencies

The definition of competency varies slightly in different countries, however, it must be noted that every country's definition reflects the skills it deems the most important and applicable. Most often, the skills listed under the umbrella of 21st Century Competencies include critical thinking, collaboration, communication, creativity, problem solving, analysis, and global citizenship. Thus, it is essential to assess these skills through tasks requiring students to apply their content knowledge in various situations.

BCSEA defines competency as the ability to apply knowledge, skills, values and attitudes effectively in the real life contexts (BCSEA, 2016, p.iv). Similarly, the OECD defines competency as the ablility to use knowledge, skills, attitudes and values to act in coherent and responsible ways that change the future for the better. Skills are a pre-requisite for exercising a competency (OECD, 2019).

The Bhutan Education Blueprint 2014-24 elaborates 21st Century Competencies by anchoring students' aspirations in the four imperatives of learning and achievement, namely knowledge, competencies, values, and attitudes. It further describes the Nine Student Attributes that indicate the quality of learning in one or more of the imperatives. Hence, the 21st Century Competencies assessed in the NEA is in the context of Nine Student Attributes that the students are expected to embody. This enables students to be nationally rooted and globally competent citizens. These attributes are assessed through various cognitive and/or contextual instruments in the assessment. The instruments and domains covering each of attributes are given in Table 2 below.

Table 2: *Assessment of the Nine Student Attributes*

Nine Student Attributes	Tools	Domains
Knowledge and understanding	Cognitive instruments	• Dzongkha and English Reading Literacy • Dzongkha and English Writing Literacy • Dzongkha and English Listening and Speaking Literacy • Mathematical Literacy • Scientific Literacy
Intellectual competence	Cognitive instruments	• Dzongkha and English Reading Literacy • Dzongkha and English Writing Literacy • Dzongkha and English Listening and Speaking Literacy • Mathematical Literacy • Scientific Literacy
Communicative competence	Cognitive instruments	• Dzongkha and English Reading Literacy • Dzongkha and English Writing Literacy • Dzongkha and English Listening and Speaking Literacy • Mathematical Literacy • Scientific Literacy
Enduring habits of lifelong learning	Cannot be explicitly covered in NEAF but will be implicitly reflected in the texts selected for cognitive and contextual instruments	Implicitly covered through texts in • Dzongkha and English Reading Literacy • Dzongkha and English Writing Literacy • Dzongkha and English Listening and Speaking Literacy
Family, community and national values	Cognitive and Contextual instruments	• Scientific Literacy • Contextual questionnaire Implicitly covered through texts in • Dzongkha and English Reading Literacy • Dzongkha and English Writing Literacy • Dzongkha and English Listening and Speaking Literacy
Spirituality and character	Cannot be explicitly covered in NEAF but will be implicitly reflected in the texts selected for cognitive and contextual instruments	Implicitly covered through texts in • Dzongkha and English Reading Literacy • Dzongkha and English Writing Literacy • Dzongkha and English Listening and Speaking Literacy
Physical wellbeing	Cannot be explicitly covered in NEAF but will be implicitly reflected in the texts selected for cognitive and contextual instruments	Implicitly covered through texts in • Dzongkha and English Reading Literacy • Dzongkha and English Writing Literacy • Dzongkha and English Listening and Speaking Literacy • Scientific Literacy

Leadership competence	Will be partially covered in cognitive and contextual instruments	• Dzongkha and English Reading Literacy • Dzongkha and English Writing Literacy • Dzongkha and English Listening and Speaking Literacy • Mathematical Literacy • Scientific Literacy
World readiness	Will be partially covered in cognitive and contextual instruments	• Mathematical Literacy • Scientific Literacy

1.8.3 Assessing Children With Disabilities

To enhance the quality of inclusive and special services in Bhutan, it is imperative that the NEA captures strategies to assess the learning outcomes of CWDs. In line with the country's GNH philosophy, conscious efforts are made to leave no child behind. An inclusive NEA ensures quality education, and equity in learning and assessment for better education support services.

Successful inclusion is about accepting differences and including everyone in the provision of access to quality education. Thus, an inclusive NEA ensures that children from diverse backgrounds are not only included but are also given equitable opportunities to participate in the assessment by providing appropriate support and interventions without any bias built into the tools and processes. To this effect, the NEAF aims to provide equal opportunity to every child and ensures that the assessment is fair to everyone. This approach of universal inclusion is met through various means such as making appropriate accommodations and adaptations in the tools, allocation of extra time, provision of suitable seating, presentation and response format, administration and assessment. In addition, the right sampling technique provides a valid chance to every child to participate in the assessment. Details of the assessment of CWDs is mentioned in Chapter nine.

ལེའུ་ ༣ པ: རྫོང་ཁ་ལྷག་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན།

༣.༡ ངོ་སྤྲོད།

ལེའུ་འདི་གིས་ སློབ་རིམ་ ༣ པ་དང་ ༦ པ་ ༩ པའི་ རྫོང་ཁའི་འབྲི་ལྷག་ཤེས་ཡོན་ དབྱེ་ཞིབ་ཀྱི་བཀོད་རིས་ འགོད་དེ་ཡོད། དང་པར་ ལྷག་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་ གལ་ཆེ་བའི་སྐོར་ལས་ ཁ་གསལ་འབད་བྲིས་ཡོདཔ་ཨིན། དེའི་ཤུལ་ལས་ ལྷག་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་གྱི་ངེས་ཚིག། ཚོས་ཚན་གཞི་གནས་ཀྱི་རིམ་སྒྲིག། དྲི་བའི་རྣམ་གྲངས། གཞི་གནས་དབྱེ་ཞིབ་འབད་ཐངས། དེ་ལས་ དུས་རབས་ ༢༡ པའི་ རིག་རྩལ་ལྕོགས་གྲུབ་དབྱེ་ཞིབ་དང་ ཚད་འཇལ་ཚུགས་པའི་ལྷབ་སྦྱང་གྲུབ་འབྲས་ཚུ་ འགོད་དེ་ཡོདཔ་ཨིན།

༣.༡.༡ ལྷག་ནི་གལ་ཆེ་བའི་སྐོར་ལས།

འགྲོ་བ་མིའི་གནས་སྟངས་ནང་ ལྷག་ནི་གལ་ཆེ་བའི་གཞི་རྩ་གི་སྐོར་ལས་ རྒྱལ་འཛིན་ཤེས་རིག་ཚོགས་སྡེ་གིས་པར་སྐྲུན་འབད་ཡོད་མི་ སློབ་རིམ་བློ་གསར་ལས་ ༡༢ པ་ཚུན་གྱི་ རྫོང་ཁའི་རྩ་གཞུང་བཀོད་རིས་ནང་ གསལ་ཏོག་ཏོ་འབད་བཀོད་དེ་འདུག།

དེ་ཡང་ ལུགས་ཀྱི་བསྟན་བཅོས་ལས། འབྲི་ཀློག་ཡོན་ཏན་ཀུན་གྱི་གཞི།། ཟེར་སླབ་དོ་བཟུམ་ དངོས་རྩོམ་དང་འཆར་རྩོམ་གྱི་རིགས་ག་རལུ་ ལྷག་སྦྱང་འབད་དེ་ དེ་ཚུ་ནང་ཡོད་པའི་ནང་དོན་ཚུ་ རང་རྒྱུད་ལུ་འཐོབ་ཚུགསཔ་འབད་ནིའི་དོན་ལུ་ ཐབས་ལམ་དྲག་ཤོས་འདི་ར་ ལྷག་ནིའི་རིག་རྩལ་འདི་ཨིན། རྩོམ་རིག་ལུ་ལྷག་སྦྱང་འབད་བའི་ གྲུབ་འབྲས་འདི་གིས་ རང་གི་མི་ཚེའི་རིང་ལུ་ མཁས་པའི་བྱ་བ་འཆད་རྩོད་རྩོམ་གསུམ་གྱིས་མ་ཚད་པར་ ཆོས་དང་ལམ་སྲོལ་ལུ་ བརྩི་མཐོང་གི་བསམ་སྤྱོད་ཤེས་ཡོན་དང་། སྲིད་ཀྱི་བྱ་གཞག་ག་ཅིར་འབད་དགོ་རུང་ ཐོས་རྒྱ་ཆེ་བའི་ཉམས་མྱོང་ལུ་བརྟེན་ཏེ་ གདམ་ཁ་མ་ནོར་བར་ འཇུག་ཤེས་པའི་རྣམ་དཔྱོད་ཀྱི་ཤེས་རབ་ འཐོབ་ཚུགསཔ་ཨིན།

ཞིབ་འཚོལ་མང་རབས་ཅིག་ནང་ ལྷག་ནིའི་འབྲི་ལྷག་ཤེས་ཡོན་འདི་ དུས་རབས་ ༢༡ པའི་ནང་ མེད་ཐབས་མེད་པའི་ རིག་རྩལ་ཚུ་ འཐོབ་ནིའི་དོན་ལུ་ གཞི་འགྲམ་གྱི་རིག་རྩལ་ཅིག་ཨིནམ་འབད་ གཙོ་བོར་བཟུང་སྟེ་འདུག། ཧོ་ལོ་ཕེ་ (༡༩༩༩) གིས་འབད་བ་ཅིན་ ལྷག་ནིའི་རིག་རྩལ་ཚུ་ འབྲིང་རིམ་བར་མ་དང་ འབྲིང་རིམ་གོང་མའི་སློབ་ཕྲུག་ཚུ་གི་ ཤེས་ཡོན་གྲུབ་འབྲས་ཀྱི་དོན་ལུ་ གལ་ཅན་ཅིག་འབད་བཤད་དེ་འདུག། དེ་བཟུམ་སྦེ་ ལྷག་ནིའི་རིག་རྩལ་འདི་ མཐར་འཁྱོལ་ཅན་གྱི་གྲལ་གཏོགས་དང་ མི་སྡེ་གཅིག་སྒྲིལ་གྱི་དོན་ལུ་ ཉེ་བར་མཁོ་བའི་ རིག་རྩལ་ཅིག་ཨིནམ་འབད་ ཆ་བཞག་སྟེ་འདུག། (Cunningham & Stanovich, 1998; Smith et al., 2000)

དུས་རབས་ ༢༡ པའི་ནང་ལུ་ བརྡ་དོན་འབྱུང་གནས་མ་འདྲཝ་ཚུ་ལས་ གནས་ཚུལ་ཚུ་འཚོལ་ནི་དང་ བསྡུ་ལེན་འབད་ཚུགས་པའི་ ལྕོགས་གྲུབ་ཚུ་དགོཔ་ ཧ་ཅང་གིས་གལ་ཆེཝ་འབད་ཡོད། གནས་ཚུལ་འཚོལ་ནི་འདི་ ལྷག་ནིའི་ལྕོགས་གྲུབ་འདི་གིས་ ཚད་འཛིན་འབདཝ་ཨིནམ་ལས་ སློབ་ཕྲུག་གི་ སྨུས་ཚད་ཅན་གྱི་མི་ཚེའི་དོན་ལུ་ ལྷག་ནིའི་རིག་རྩལ་འདི་དགོ། ལྷག་ནིའི་ལྕོགས་གྲུབ་འདི་གིས་ མི་ངོམ་རང་སོ་ལུ་ཁེ་ཕན་ཡོདཔ་མ་ཚད་ རྒྱལ་ཡོངས་དགའ་སྐྱིད་ལུ་ཡང་ ཕན་ཐོགས་འབྱུང་ཚུགསཔ་ཨིན། ཀི་ན་ཊ་གི་ དཔལ་འབྱོར་

ཨཁས་ཟཆོག་ཚུ་གིས་ ཤེས་རྟོགས་བྱང་མི་དང་འཁྱིལ་བ་ཅིན། དུས་ཡུན་ཕྱགས་ཐག་རིང་བའི་ ཤེས་ཡོན་གྲུབ་འབྲས་ལས་ རྒྱལ་ཁབ་ཀྱི་མི་སྡེ་བས་ཚུ་ལུ་ འབྲི་ལྷག་ཤེས་ཡོན་ཀྱི་གནས་རིམ་ འབྲིང་ཙམ་ཡོད་པ་ཅིན་ འདི་རྒྱལ་ཁབ་ཀྱི་དཔལ་འབྱོར་གོང་འཕེལ་ཀྱི་ སྟོན་ཚོད་དཔག་མི་ ལེགས་ཤོམ་ཅིག་ཨིནམ་འབད་བཤདཔ་ཨིན་པས། (Coulombe et al., 2004)

འབྲུག་རྩ་གཞུང་དང་ཞིབ་འཚོལ་སྟེ་ཚན་ (The Silken Knot, 2002) གྱིས་འབད་རྩུད་ ལྷག་ནི་འདི་ དུས་རབས་ ༡༧ པའི་ རིག་རྩལ་ཀྱི་གཞི་འགྱམ་ཅིག་ ཨིནམ་འབད་བཏང་སྟོན་འབད་དེ་འདུག། དེ་འབདཔ་ལས་ དཔལ་ཡོངས་ སློབ་གྲྭ་གི་ལམ་ལུགས་ནང་ལུ་ཡོད་མི་ ཡོན་ཏན་ཀྱི་ཞེ་ཡན་ཚུ་ཀོ་ནི་དང་ ལེགས་བཅོས་ཀྱི་གཞི་གནས་ཚུ་ ངོས་འཛིན་འབད་ཚུགས་ནིའི་དོན་ལུ་ ལྷག་ནིའི་འབྲི་ལྷག་ ཤེས་ཡོན་ཀྱི་དབྱེ་ཞིབ་ འགོ་འདྲེན་འཐབ་དགོཔ་འདི་ གལ་ཅན་ཅིག་ཨིན།

༡.༡ རྩོངཔ་ལྷག་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་ཀྱི་ ངེས་ཚིག།

འབྲུག་རྒྱལ་ཡོངས་ཤེས་རིག་དབྱེ་ཞིབ་ཀྱི་ དམིགས་དོན་ཚུ་ལས་གཅིགཔོ་འདི་ སློབ་ཁྲག་ཚུ་གིས་ མི་སྡེའི་ནང་གཅིག་སྤྱིལ་དང་གྱལ་གཅེར་གས་མཐར་འཚོལ་ཅན་འབད་ འབད་དེ་ ཕན་གྲོགས་ཅན་གྱི་ མི་ཁུངས་ཅིག་ལུ་འགྱུར་ནིའི་དོན་ལུ་ སློབ་ཁྲག་ཚུ་གིས་ རྩ་གཞུང་ལས་བཏུལ་ཏེ་ ཁོང་བའི་ཤེས་ཡོན་དང་རིག་རྩལ་ཚུ་ ལག་ལེན་འཐབ་ནིའི་ལྟོགས་གྱང་ཚུ་ དབྱེ་ཞིབ་འབད་ནི་འདི་ཨིན། དེ་འབདཔ་ལས་དབྱེ་ཞིབ་འདི་གིས་ རྒྱལ་སྤྱིའི་དབྱེ་ཞིབ་ལམ་ལུགས་ངོས་ཨོས་ རྒྱལ་སྤྱིའི་སློབ་ཁྲག་དབྱེ་ཞིབ་ལས་རིམ་(PISA) ལ་སོགས་པ་ཚུ་གི་རྗེས་སུ་འཐབ་ཀྱི་ འབྲི་ལྷག་ཤེས་ཡོན་ཀྱི་ཐབས་ལམ་འདི་ དང་ལེན་འབདཔ་ཨིན། འབྲི་ལྷག་ཤེས་ཡོན་ཀྱི་དགོངས་དོན་འདི་ ལྷབ་སྦྱང་གཞི་གནས་རེ་རེ་ནང་ལུ་ ནང་དེ་བས་འབདཝ་ཡོད་མི་ ཤེས་ཡོན། གོ་རྟོགས། རིག་རྩལ་ཚུ་ལས་བརྒལ་ཏེ་གཙོ་ཐུབ་ཨིན། འདི་ནང་ལུ་ ཤེས་ཡོན་དང་རིག་རྩལ་དེ་ཚུ་ འཐོབ་ནི་དང་ལག་ལེན་འཐབ་ནིའི་ སྟོགས་གྱང་ཚུ་ཚུདཔ་ཨིན།

ལྷག་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་ཀྱི་ངེས་ཚིག་འདི་ འོག་ལུ་བཀོད་དོ་བཟུམ་ཨིན།

ལྷག་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་ཟེར་མི་འདི་ ཕན་ཚུན་འབྲེལ་བའི་བྱ་རིམ་ལུ་བརྟེན་ཏེ་ རང་དབང་མི་སྡེའི་ཉེར་མཁོ་ཚུ་གི་ དོན་འགྲུབ་ནི་དང་ མི་སྡེའི་ནང་ལུ་ ཕན་གྲོགས་ཅན་ཀྱི་འཁུས་མི་ཅིག་འབད་ནིའི་དོན་ལུ་ མི་ངོམ་རང་སོ་སོ་གིས་ ཡིག་ཐོག་ལུ་བྱིས་ཡོད་མི་ (ཡིག་བྱིས་མ་) ཚུ་ཡས་ གནས་རིམ་སྣ་ཚོགས་ཀྱི་ཐོག་ལས་ དོན་དག་ཅ་ཚོ་ཚུགས་ནིའི་སྟོགས་གྱང་འདི་ལུ་ གོ་ནི་ཨིན།

"ལྷག་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན"

རྒྱ་ཆེ་བའི་ཁྱབ་ཚད་ བརྟེན་འབད་ནིའི་དོན་ལུ་ 'ལྷག་ནི་' ཟེར་མི་ མིང་ཚིག་ལས་ 'ལྷག་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་' ཟེར་མི་ མིང་ཚིག་འདི་ གདམ་ཁ་རྒྱབ་ཡོད་པ་ཨིན། ལྷག་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་འདི་ མིང་ཚིག་ལྷག་ཚུགས་ནི་ རྒྱབ་སྐྱོར་གཅིག་ཨིན་ན་ དེ་ལས་བརྒལ་ཏེ་འཁྱོམ་ཨིན། དེའི་གྲངས་སུ་ གནས་ཚུལ་འཚོལ་ནི་དང་ གོ་དོན་འགྲེལ་ནི། བཙུངོན་བཏོན་ནི། དེ་ལས་ ཡིག་བྱིས་མ་ སྣ་ཚོགས་ཀྱི་ ངོས་འཛིན་འབད་ནིའི་ དོག་རྩལ་ཚུ་ཚུདཔ་ཨིན། དེ་བཟུམ་མའི་ མིང་ཚིག་གདམ་ཁ་རྒྱབ་དགོ་པའི་ རྒྱུ་མཚན་གཞན་མི་འདི་ཡང་ ལྷག་ནི་འདི་ གནས་སྐབས་ཅིག་ནང་ དགོས་དོན་ཅིག་གི་དོན་ལུ་ ལྷགཔ་ཨིན་ཟེར་བའི་ བརྟེན་འབད་ནིའི་ དོན་ལུ་ཨིན།

"ལྷག་ནིའི་འབྲི་ལྷག་ཤེས་ཡོན་ ཟེར་མི་འདི་ མི་དོམ་རང་རོ་སོ་གིས་ ཡིག་ཐོག་ལུ་བྲིས་ཡོད་མི་ (ཡིག་བྲིསམ་) ཚུ་ལས་ གོ་དོན་ལེན་ཚུགས་པའི་ལྟོགས་གྲུབ་འདི་ལུ་ སྐྱབ་ཨིན"

ལྷག་ནིའི་འབྲི་ལྷག་ཤེས་ཡོན་ཟེར་མི་འདི་ སློབ་ཁྲག་ཚུ་གིས་ ཁོང་རང་གིས་ ལྷག་ནིའི་མཁོ་ཆས་ གཅིར་ལྷག་སྟེ་འབད་རུང་ དེ་ནང་གི་ གོ་དོན་ཚུ་ ལེན་ཚུགས་པའི་ ལྟོགས་གྲུབ་དང་ཤེས་རིན་འབད་མི་ལུ་གོ་ནི་ཨིན། མིང་ཆིག་ 'ཡིག་བྲིསམ" ཟེར་བཞག་དགོ་མི་བརྡ་མཚོན་འདི་ ཡིག་ཐོག་ལུ་མེད་པར་ ཁ་ལས་རྒྱངམ་གཅིག་སྐབས་པའི་མིང་ཆིག་ཚུ་ འདི་ནང་ལས་ ཕྱིར་བཏོན་འབད་ཡོད་ནི་འདི་གིས་ཨིན། ཡིག་བྲིསམ་ཚུ་ སྐྱིག་བཀོད་སྟངས་ཀྱི་ཐོག་ལུ་འོང་སྲིད། དེ་ཡང་ ལགཔ་གིས་བྲིས་བྱིཌ་དང་། པར་སྐྲུན་འབད་འབདཝ་ ཡང་ནུགས་རིག་ཡིག་ཆས་ཚུ་འོང་ནི་ཨིན། ཡིག་བྲིསམ་དེ་ཚུ་ཡང་ གནད་དོན་འཛོལ་མཐུད་ཡོདཔ་དང་མེདཔ་ཚུ་ཡང་འོང་སྲིད།

"གནས་ཚད་རིམ་པ་སྟངས་ཀྱི་ཐོག་ལས"

མཁས་མཆོག་ གེ་རེ་ (1960) གིས་འབད་བ་ཅིན་ ལྷག་ནི་ལུ་ རིམ་པ་གསུམ་ཡོད་ཟེར་ཨིན་པས། དེ་ཡང་ རྩོད་ཆིག་ལྷག་ནི། རྩོད་ཆིག་འདི་གི་ གོ་དོན་དང་བཅས་འབད་ལྷག་ནི། རྩོད་ཆིག་འདི་གི་ གོ་དོན་ལས་བརྒལ་ཏེ་ལྷག་ནི་ཚུ་ཨིན་པས། ལྷག་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་ནང་ལུ་ རིམ་པ་དེ་ཚུ་གི་ རིག་རྩལ་གཅིག་ཡིན། ལྷག་ནི་འདི་ དངཔ་ང་ མིང་ཆིག་ལྷག་ནིའི་ལྟོགས་གྲུབ་ལས་འགོ་བཙུགས་ཏེ་ གོ་བ་ལེན་ནི་དང་ དེ་ལས་ལྷག་པའི་ མཐོ་བའི་བློ་རྩལ་ཀྱི་ ལྟོགས་གྲུབ་ཚུན་ཚོད་འགྱོཝ་ཨིན།

"ཨན་ཚུན་འཛེལ་བའི་བྱ་རིམ་ཀྱི་ཐོག་ལས"

བརྗོད་ཕྲན་དེ་གི་གོ་དོན་འདི་ཡང། གཅིར་ལྷག་རྒྱང་ ལྷག་མི་འདི་གིས་ ཡིག་བྲིསམ་གི་ཆོག་ཚུ་ ཕྱང་ཕྱང་ཏ་གོ་ཚུགས་པའི་ ཐྲོག་གཅིག་གི་བྱ་རིམ་ཐོག་ལས་ འབད་ཚུགས་པའི་ལུ་ཅིག་མེན་པར་ ལྷག་པའི་སྐབས་ལུ་ ལྷག་མི་འདི་གིས་ ཉེ་མ་ལས་ཐོབ་ཡོད་པའི་རིམ་པ་ཅིག་ རྩལ་དང་ ཡོན་ཏན་ཀྱི་ཉམས་སྐྱོང་ཚུ་ལུ་ གཞི་བཞག་སྟེ་ ཡིག་བྲིསམ་ཚུ་གོ་དོན་འགྲེལ་ནི་དང་ལེན་ནི། དོན་བརྒྱུད་བཏོན་ནི་དེ་ཚུ་ལུ་ གོ་ཁ་ཨིན།

"རང་དབང་མི་སྟེའི་དགོས་མཁོ་ཚུ་ འགྲུབ་ནི"

ཡིག་བྲིསམ་འདི་ ལྷག་པའི་སྐབས་ལུ་ མང་ཆེ་ཤོས་ཅིག་ གནས་སྟངས་དང་ དགོས་དོན་ལུ་གཅོ་བོར་བཏོན་ཏེ་ལྷག་པ་ཨིན། ཡིག་བྲིསམ་གི་ཅིར་འབད་རུང་ གནས་སྟངས་གཞན་དང་འབྲེལ་བར་མེད་པར་ ལྷག་ནི་མེད། དེ་འབདཝ་ལས་ ལྷག་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་དབྱེ་ཞིབ་འདི་ བདེན་ཁུངས་ཅན་འབད་ འབད་ནིའི་དོན་ལུ་ ཡིག་བྲིསམ་གདམ་འཐུ་འབད་ཡོད་མི་ཚུ་ནང་ ལྷག་ནི་འདི་ མི་ཚེའི་ གནས་སྟངས་ཚུ་གི་སྐོར་ལས་ བདེན་ཁུངས་བཀལ་ཚུགས་པའི་ གནས་སྟངས་དང་ དགོས་དོན་སྣ་ཚོགས་ཡོདཔ་ ཞིན་ཅི་མིན་ཅི་ གསལ་སྟོན་ འབད་ཚུགསཔ་ཅིག་དགོ།

"རང་དང་མི་སྡེའི་དགོས་མཁོ་ཚུ་ འགྲུབ་ནི"

ཟེར་མི་འདི་གིས་ ལྷག་མི་གི་ དགོས་མཁོ་མ་འདྲཝ་ཚུ་ གསལ་སྟོན་འབདཔ་ལས་བརྟེན་ཏེ་ མི་ངོམ་རང་སོའི་ མཐོང་སྣང་གི་ཁ་ཐུག་ལས་ ཧ་གོ་དགོ་ཟེར་ཨིན་པས། དཔེ་འབད་བ་ཅིན། མི་ངོམ་རང་སོའི་དགོས་མཁོ་ནང་ལུ་ སྣུང་། ཡང་ན་ རྩོམ། ལྷག་ནི་འདི་ དགའ་སྤྲོའི་དོན་ལུ་ཡང་ འོང་སྲིད། མི་སྡེའི་དགོས་མཁོ་ཚུ་ ཡོངས་འབྲེལ་ (blogs) དང་། གནས་ཚུལ་གསར་ཤོག། དུས་དེབ། ལ་སོགས་པ་ཚུ་ལྷག་སྟེ་ དགོས་དོན་འགྲུབ་སྲིད་ནི་དང་ ཏེ་མ་ལས་ལྷག་པའི་གོ་དོན་ ཧ་གོ་ནིའི་དོན་ལུ་ཡང་ཨིན། དེ་ལས་ བརྡ་དོན་སྤྲོད་ལེན་གྱི་དོན་ལུ་ གློག་འཕྲིན་དང་། (e-mails) མཐུན་གཏམ། (chats) མི་སྡེའི་བརྡ་བརྒྱུད། འཕྲིན་ཡིག་ལ་སོགས་པ་ཚུ་ཨིན།

"མི་སྡེ་ནང་ལུ་ གྲོགས་རམ་འབད་ཚུགས་པའི་མི་ངོམ་ཅིག་ འབད་ནིའི་དོན་ལུ་གོ་ནི་ཨིན།

ལྷག་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་ གལ་གནད་ཆེ་བའི་ར་ཁུངས་འདི། མི་ངོམ་རང་སོའི་ མཐོང་སྣང་རྒྱངམ་གཅིག་གིས་ མ་དོ་བར་ རྒྱ་ཆེ་བ་མི་སྡེའི་ མཐོང་སྣང་གི་ཁ་ཐུག་ལས་ ཧ་གོ་དགོཔ་འདི་ ག་ནི་ལས་གལ་ཆེ། རྗོད་ཐུན་འདི་གི་ དམིགས་དོན་འབད་བ་ཅིན་ ལྷག་ནིའི་འབྲི་ལྷག་ཤེས་ཡོན་འདི་ མི་ཁུངས་རེ་རེ་བཞིན་དུ་ལུ་ དགོཔ་ཁག་ཆེཝ་ཅིག་ཨིན་པའི་བརྡ་མཚོན་དང་། གཞན་ཡང་ མི་སྡེའི་ནང་ དོན་སྨིན་ཅན་འབད་ བཅའ་མར་གཏོགས་ནི་དང་ མི་སྡེའི་ཡར་རྒྱས་གོང་འཕེལ་ལུ་ ཕན་གྲོགས་འབད་ཚུགས་པའི་ བརྡ་སྟོན་ལུ་ཨིན་པས།

༢.༣ གཞི་གནས་ཀྱི་རིམ་སྒྲིག།

ལྷག་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་གྱི་གཞི་གནས་འདི་ གནས་སྟངས་དང་། ཡིག་བྲིསམ་རྣམ་པ། དེ་ལས་ དོན་ཚན་རྣམ་པ་ ཚུ་གི་ཐོག་ལས་ འགྲེལ་བཤད་རྐྱབ་ཨིན། གནས་སྟངས་འདི་ ཡིག་བྲིསམ་གྱི་བརྗོད་དོན་དང་ བཀོད་ཐངས་ལུ་སླབ་ཨིན། ཡིག་བྲིསམ་རྣམ་པ་འདི་ ཡིག་བྲིསམ་གྱི་དབྱེ་བ། སྒྲིག་བཀོད། འོས་འཚམས་ལྡན་པའི་མང་ཉུང་། དེ་ལས་ འཇམ་ཏིང་། ཚུ་ལུ་སླབ་ཨིན། དོན་ཚན་རྣམ་པ་ནང་ འབད་བ་ཅིན་ བློ་རྩལ་གྱི་ལྕོགས་གྲུབ་ དབྱེ་ཞིབ་འབད་བཞིན་ཡོད་མི་དང་། དྲི་བའི་བཟོ་བཀོད་ཀྱི་དོན་ལུ་ ལག་ལེན་འཐབ་ཡོད་མིའི་ དོན་ཚན་སྒྲིག་བཀོད་ཚུ་ཚུདཔ་ཨིན། ལྷག་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་གྱི་ གཞི་གནས་ནང་གི་ དོན་ཚན་ཚུ་གི་སྤྱིན་ཞུ་འདི་ཡང་ སྤྱིར་བཏང་ ལེའུ་ཚན་འབད་ སྤྱིན་ཞུ་འབད་མི་ནང་ལུ་ ལྷག་ནིའི་ཡིག་བྲིསམ་དང་། ཡིག་བྲིསམ་འདི་ གོ་བ་ལེན་ནིའི་ དབྱེ་ཞིབ་ཀྱི་དོན་ཚན་ཚུ་ ཚུད་དེ་ཡོད་པའི་སྒོ་ལས་ སྤྱིན་ཞུ་འབད་ནི་ཨིན།

༢.༣.༡ གནས་སྟངས།

ལྷག་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་གྱི་གཞི་གནས་ནང་ལུ་ ལྷག་པའི་སྐབས་ལུ་ དགོས་དོན་དང་ གནས་སྟངས་མ་འདྲཝ་ཚུ་ ཚུད་དེ་ཡོདཔ་ཨིན། དེ་འབདཝ་ལས་ གནས་སྟངས་ཀྱི་ཁྱབ་ཚད་ རྒྱ་ཆེ་དྲགས་འབད་ ཁྱབ་ཚུགསཔ་ངེས་བརྟན་ བཟོ་ནིའི་དོན་ལུ་ དབྱེ་ཞིབ་ནང་ལུ་ བཙུགས་ཡོད་མི་ ཡིག་བྲིསམ་ཚུ་ མི་ངོ་རང་རྐྱང་དང་། མཐའ་འཁོར། དེ་ལས་ རྒྱལ་སྤྱི། ཟེར་ དབྱེ་ཁག་གསུམ་འབད་ཡོད། དབྱེ་ཁག་རེ་རེའི་ནང་ འོས་འབབ་ལྡན་པའི་ དཔེ་ཡོདཔ་འབད་ ངེས་བརྟན་བཟོ་ནི་ཨིན། དབྱེ་ཁག་མ་འདྲཝ་ཚུ་གི་ ངེས་ཚིག་ཚུ་ འོག་ལུ་བཀོད་དེ་ཡོད།

མི་དེམ་རང་རྒྱུད་གི་ གནས་སྟངས་ནང་ལུ་ རང་སོའི་དམིགས་གཏད་ཡོད་མི་ཅིག་འོད། རང་རྒྱུད་གི་གནས་སྟངས་ལུ་ མཐུན་སྒྲིག་ཡོད་པའི་ ལྷག་ཞིའི་ལུ་ནང་ གཅོ་བོ་ མི་དེམ་རང་རྒྱུད་གི་སྤྱི་བ་ ཡང་ན་ ཤེས་ཡོན་གོང་འཕེལ་གཏང་ཐབས་ལུ། དེམ་ན། བརྡ་དོན་ལེན་ནི་ ཡང་ན་ སྤྱི་བའི་དོན་ལུ་ སྐད་སྟག་ནི་ལ་སོགས་པ་ཚུ་ཞིན།

མཐའ་འཁོར་གྱི་གནས་སྟངས་ནང་ལུ་འབད་བ་ཅིན་ མི་གཞན་དང་མཉམ་གཅིག་ བཅའ་མར་གཏོགས་ནི་ལུ་ མཁོ་འདོད་བསྐྱེད་ནི། ཡང་ན་ རྒྱལ་ཁབ་དང་རང་གི་ཉེ་འདབས་ལུ་ཡོད་མི་ མཐའ་འཁོར་གྱི་ འབྱུང་བ་ཚུ་དང་གཅིག་ཁར་ ཕན་ཚུན་འབྲེལ་བ་འབད་ནི་ལུ་ གཅོ་བོར་བཏོན་མ་ཞིན། གནས་སྟངས་འདི་གི་གྲངས་སུ་ རང་གི་བསམ་བློ་དང་ བྱ་བ་དེ་ཚུ་ རང་གི་ཉེ་འདབས་ལུ་ཡོད་མི་ གང་ཟག་ཡང་ན་ དངོས་པོའི་རིགས་ཚུ་དང་མཉམ་གཅིག་ ཕན་ཚུན་འབྲེལ་བ་ཡོད་མེད་ལུ་ རག་ལས་པའི་གནད་དོན་ཚུ་ གཅོ་བོར་བཏོན་ཏེ་ རང་གི་ཁྱིམ་དང་ སྤྱོད་གྲ། མི་སྡེ། ཡང་ རང་གི་ལྷ་གི་ས་གོ་ནང་ལུ་ ཉེན་བསྐྱང་གྱི་གནས་སྟངས་དང་ ལས་སྣ་ཚུ་ཚུདཔ་ཞིན། ས་གནས་ཀྱི་གནས་སྟངས་ ཁ་གསལ་སྟོན་མི་ ལྷག་ཞིའི་ ཡིག་བྱིསམ་འདི། ཆར་རོགས་ལས་ཐོབ་པའི་གཏངཡིག་དང་། སྤྱོད་གྲའི་དུས་ཚོད་རེའུ་མིག། ཡང་ རང་གི་རྒྱལ་ཁབ་དང་གཡུས་ཀྱི་བཤད་པ། ལ་སོགས་པ་ཚུ་ཚུདཔ་ཞིན།

རྒྱལ་སྤྱིའི་གནས་སྟངས་ནང་ལུ་ ཞིན་པ་ཅིན་ མི་སྡེ་གཅིག་ ཡང་ན་ རྒྱལ་ཁབ་གཅིག་ ཡང་ན་ འདི་བ་ལྷག་པའི་ རྒྱ་ཆེའཐགས་དང་ འབྲེལ་ཡོད་རྒྱལ་སྤྱིའི་ནང་ལུ་ ཕན་གནོད་ཡོད་པའི་ ཕྱི་འབྲེལ་གྱི་གནས་སྟངས་ཚུ་ལུ་ གཅོ་བོར་བཏོན་མ་ཞིན། རྒྱལ་སྤྱིའི་གནས་སྟངས་དང་ མཐུན་སྒྲིག་ཡོད་པའི་ ཡིག་བྱིསམ་ནང་ རྒྱ་ཆེའི་མི་སྡེའི་ གནད་དོན་ཚུ་དང་འབྲེལ་བའི་གནད་དོན་ དེམ་ན། མི་དམངས་སྡིད་བྱུས་དང་ སྐྱེལ་འདྲེན་ལམ་ལུགས། དེ་ལས་ གསལ་བསྒྲགས་དང་ ཁྲབ་བསྒྲགས། ལ་སོགས་པ་ཚུ་ཚུདཔ་ཞིན། རྒྱལ་སྤྱིའི་གནས་སྟངས་ ཁ་གསལ་སྟོན་མི་ ལྷག་ཞིའི་ ཡིག་བྱིསམ་འདི། གནས་ཚུལ་གསར་ཤོག་གི་ སྐན་ཁྲ་དང་། དུས་དེབ་ནང་གི་རྩོམ་རིགས། ཡང་ འབྱུང་རབས་ཀྱི་འགྲེལ་བཤད། ལ་སོགས་པ་ཚུ་ཚུདཔ་ཞིན།

ཐིག་ཁྲམ་ ༣ འདི་ནང་ལུ་སྐབས་དོན་གྱི་ལྷིད་ཚད་ཚུ་ ཚོད་རྟེས་ སྤེ་རིམ་གཅིག་ནང་ལུ་ རྩིས་རྒྱབ་སྟེ་ བཟོ་བཀོད་དང་སྐབས་དོན་ རྩོད་ཁའི་རྩ་གཞུང་ནང་ལུ་གཞི་བཞག་སྟེ་ བཟོ་ཡོད་མི་ཚུ་སྟོན་ཞིན།

ཐིག་ཁྲམ་ ༣ (Table 3): *ལྷག་ཞིའི་འཛི་ལྷག་ཤེས་ཡོན་ནང་གི་ སྤེ་རིམ་གེ་ར་ལུ་ གནས་སྟངས་ ལྷིད་ཚད།*

གནས་སྟངས།	སྤྱི་རིམ་ གསུམ་པ།	སྤྱི་རིམ་ བྱུག་པ།	སྤྱི་རིམ་ དགུ་པ།
རང་རྒྱུད།	५०-७०%	५०-७०%	५०-७०%
མཐའ་འཁོར།	३०-९०%	३५-९५%	३०-९०%
རྒྱལ་སྤྱི།	५-१५%	१०-३०%	९०-५०%

༢.༣.༢ ཡིག་བྲིསམ་གི་རྣམ་གྲངས།

ཡིག་བྲིསམ་རྣམ་གྲངས་འདི་ ཡིག་བྲིསམ་གི་དབྱེ་བ། སྒྲིག་བཀོད། འོས་འཚམས་ལྡན་པའི་མང་ཤུང་། དེ་ལས་ འཛམ་ཉིང་ཚུ་ལུ་སླབ་ཨིན། ཡིག་བྲིསམ་གི་རྣམ་གྲངས་ ག་ཅི་བཟུམ་ཨིན་རུང་ འོག་གི་ཚད་གཞི་ཚུ་ཡིག་བྲིསམ་ གདམ་འཐུ་འབད་བའི་སྐབས་ལུ་ལག་ལེན་འཐབ་དགོཔ་ཨིན།

- ནང་དོན་ཚུ་འོས་འབབ་དང་ ལྡན་ཏོག་ཏོ་འབད་འོང་དགོཔ་མ་ཚད་ དམིགས་གཏད་བསྐྱེད་ཡོད་པའི་ སློབ་རིམ་དང་ སློབ་ཕྲུག་ཚུའི་ ལོ་ཚད་དང་གཅིག་ཁར་ཡང་ འབྲེལ་བ་དགོཔ་ཨིན།
- སློབ་རིམ་ ༣ པ་དང་ ༦ པ་ དེ་ལས་ ༩ པའི་ སློབ་ཕྲུག་ཚུ་གི་ ཕྱོགས་གྲུབ་མ་འདྲ་བའི་ དགོས་པ་ཚུ་བསྒྲུབ་དགོ།
- གནད་དོན་ཆ་ཚང་ ཏ་གོ་ཚུགསཔ་འབད་ འོང་དགོ། (དཔེར་ན། དུས་དེབ་ནང་གི་ རྩོམ་རིག་རིངམོ་ཅིག་གི་ནང་ལས་ ལུང་འདྲེན་ཐུང་ཀུ་ཅིག་བཏོན་ཏེ་ ཡིག་བྲིསམ་འབད་བྱིན་ཡོདཔ་ཅིན་ ལྷག་མི་འདི་ལུ་ དོན་ཚན་ ཡངན་ རྩོམ་རིག་དེ་དང་འབྲེལ་བའི་ ཏེ་མ་གི་ཡོན་ཏན་ལོགས་སུ་ དགོཔ་མེད།)
- ལྷག་ནིའི་མཁོ་ཆས་ཚུ་ནང་ སློབ་ཕྲུག་ཚུ་གིས་ ཏེ་མ་ལས་ལྷག་མ་མྱོང་མི་ གནད་དོན་ཚུ་འོང་དགོ། དཔེ་འབད་བ་ཅིན་ ལྷག་ནིའི་མཁོ་ཆས་ཚུ་ སློབ་དེབ་ ཡངན་ འཕྲུལ་འཕྲུལ་འབད་རང་ སློབ་སྟོན་འཐོན་སྐྱེད་འབད་ ལག་ལེན་འཐབ་ཡོད་མི་ མཁོ་ཆས་གཞན་ཚུ་ནང་ལས་ བྱིན་ནི་མི་འོང་།
- གནད་དོན་གྱི་ངོ་བོ་ འཁྲུལ་མེད་འབད་ འོང་དགོ།
- ཡིག་སྦྱོར་གྱི་ ཐོབ་ཐངས་རིམ་པ་ཚུ་ འཛོལ་བ་མེདཔ་འབད་དགོ།
- དཔེ་དང་པར་རིས་ཚུ་ འོས་འབབ་དང་ལྡན་ཏོག་ཏོ་འབད་དགོ།
- མི་སྡེ་དང་ལམ་སྲོལ་གྱི་ གནས་སྟངས་དང་འོས་འབབ་མཐུནམ་འབད་དགོ།
- ཡིག་བྲིསམ་ཚུ་ ཕོ་མོའི་རྣམ་གཞག་གི་ཚོར་བ་ ཡོད་མི་ཅིག་དགོ།
- དབྱེ་ཞིབ་ནང་ལུ་ བཅའ་མར་གཏོགས་མི་སློབ་ཕྲུག་ཚུ་ རྒྱབ་ཁུངས་ གནས་སྟངས་ ག་ཅི་བཟུམ་ནང་ལས་འོང་རུང་ ཕྱོགས་རིས་མེད་པར་ འདྲན་འདྲ་འབད་ བཅའ་མར་གཏོགས་ཚུགས་པའི་ གོ་སྐབས་འཐོབ་ཚུགསཔ་བཟོ་ནིའི་དོན་ལུ་ འདྲ་མཉམ་གྱི་ལྟ་བ་གཙོ་བོར་བཟུང་སྟེ་ འོང་དགོ།
- གོ་བ་རྒྱ་སྐྱེད་དང་རྒྱབ་སྐྱོར་འབད་ནིའི་དོན་ལུ་ ཡིག་བྲིསམ་དང་པར་རིས་ཚུ་ ཚུདཔ་འབད་ལག་ལེན་འཐབ་དགོ།

༢.༣.༢.༧ ཡིག་བྱིས་མ་གི་དབྱེ་བ།

ཡིག་བྱིས་མ་གི་དབྱེ་བ་འདི་ ཡིག་བྱིས་མ་གི་རིགས་(འབྲི་རྩོམ། སྐྱ་རྩོམ། སྡུད། རྣམ་ཐར། རྟོགས་བརྗོད། གནས་ཚུལ་ལ་སོགས་པ་) དང་ དེའི་རྒྱུ་ཆ་བའི་དགོས་དོན་ཚུ་ལུ་གཞི་ཁྱབ་ཨིན། ཡིག་བྱིས་མ་དབྱེ་བ་རེ་རེ་ལུ་ ཁྱད་རྣམ་མ་འདྲཔ་རེ་ཡོད་པ་ལས་ དབྱེ་ཞིབ་ནང་ལུ་ ཡིག་བྱིས་མ་གི་དཔེ་མཚོན་ རྒྱ་ཆེ་དྲགས་འབད་ཡོད་པ་ རེས་བརྟན་བཟོ་དགོཔ་འདི་ གལ་ཆེ། ལྷག་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་གྱི་ དབྱེ་ཞིབ་ནང་ལུ་ ག་དེ་འབད་ཚུགས་ཚུགས་ ཡིག་བྱིས་མ་མ་འདྲཔ་ རྒྱ་ཆེ་དྲགས་འབད་ བཙུགས་དགོཔ་འདི་ མེད་ཐབས་མེད་པ་ཅིག་ཨིན། བྱི་ནིའི་འབྲི་ལྷག་ཤེས་ཡོན་གྱི་ ཡིག་བྱིས་མ་གི་དབྱེ་བ་ཚུ་ གཤམ་ལུ་འགྲེལ་བཤད་ཀྱྭ་སྟེ་ཡོད།

འཚར་སྐྱངཡིག་བྱིས་མ་འདི་ རང་སོའི་སེམས་ཀྱི་ཚོར་སྐྱངམ་འདྲཔ་དང་ ཐབས་ཤེས་ཚུ་ ཆོག་དང་ ཡང་ བར་རིས་ཚུ་ ལག་ལེན་འཐབ་སྟེ་ བགོད་ཡོད་མི་འདི་ལུ་སྤྲྭབ་ཨིན། ཡིག་བྱིས་མ་འདི་ཚུ་གིས་ འཁྲབ་རྩེད་སྤྱན་ཁྲ་དང་བཟོ་བགོད། འབྱུང་རིམ་དང་བརྗོད་དོན། འབྲི་བགོད་དང་འབྲེལ་བ་ཡོད་མི་ཚུ་ ནམ? ཡང་ ག་ཅི? ལ་སོགས་པ་ཚུ་ གོ་རིམ་བསྒྲིགས་ཏེ་འོངམ་ཨིན། དམིགས་ཡུལ་གཅོ་བོ་འདི་རང་ ལྷག་མི་ཚུ་ལུ་དགའ་སྤྲོ་ཆེན་ནི་འདི་ཨིན། སྡུང་ཐུང་ཀུ། འཁྲབ་སྟོན། པར་སྡུད་ལ་སོགས་པ་ཚུ་ འཚར་སྐྱངཡིག་བྱིས་མ་གི་དབྱེ་འབད་ཚུདཔ་ཨིན།

འགྲེལ་བཤད་ཡིག་བྱིས་མ་འདི་ གང་ཟག་དང་དོས་ཡོ། དེ་ལས་ བློར་སྐྱངདགོངས་དོན་ ཡང་ མཇོ་ལུགས་ཚུ་གི་སྐོར་ལས་ བཤད་པ་རྒྱབ་མི་ཅིག་ཨིན། ཡིག་བྱིས་མ་དེ་ཚུའི་ནང་ ག་ཅི? དང་ ག་དེ་འབད་? ཟེར་བའི་ དྲི་བ་ཚུ་གི་སྐོར་ལས་ ཁ་གསལ་བཤད་པ་ཨིན། འགྲེལ་བཤད་ནང་ལུ་ འཕྲལ་འཕྲལ་སྐབས་ རྒྱས་བཤད་སྤྱལ་ཡོད་མིའི་ བྱི་ནི་གི་རིགས་འདི་ཡང་ ཚུདཔ་ཨིན། འགྲེལ་བཤད་ཡིག་བྱིས་མ་གི་དཔེ། མི་དང་། ས་གནས། སྤྱི་ཤེད། དཀའ་དལ། ཆོར་བ། ཡང་ གནད་དོན་ཅིག་གི་སྐོར་ལས་ འགྲེལ་བཤད་རྒྱབ་ནི་དང་། ཡང་ འགོ་བཙུགས་རིགས་རྒྱུ་ཆ་ གནས་རིས་ཚུ་ལུ་ ཁ་ཡིག་བཀྲགས་ནི་ཚུ་ཨིན།

རྒྱུད་སྐྱལ་གྱི་ཡིག་བྱིས་མ་འདི་ ལྷག་མི་ལུ་ རྒྱུད་སྐྱལ་འབད་ནིའི་བསམ་འཆར་དང་ བསམ་ཚུགས་ཀྱི་འཆར་སྐྱངཚུ་བཤད་ཨིན། ཡིག་བྱིས་མ་དེ་ཚུ་གིས་ ག་འདི? དང་ ག་ཅི་འབད་? ཟེར་བའི་ དྲི་བ་ཚུ་གི་སྐོར་ལས་ ཁ་གསལ་བཤད་པ་ཨིན། རྒྱུད་སྐྱལ་ཡིག་བྱིས་མ་ནང་ལུ་ ཚུད་མི་ཚུ་ དཔེ་འབད་བ་ཅིན། ཁུན་དག་པ་ལུ་ བསྐྱལ་བའི་ཡི་གུ་དང་། ཀི་དེབ་བསྐྱར་ཞིབ། ཆོང་བསྒྲུགས་དང་གསལ་བསྒྲུགས། ལྟ་གཡོག་ཁུ་ཡིག། མི་དམངས་སྲིད་བྱུས་ ལ་ལུ་ཅིག་གི་ཐོག་ལུ་ ཞེ་ཐན་ ཡང་ གཞོད་པའི་སྐོར་ལས་ གྲོས་སྡུར་འབད་དེ་ གཞན་ལུ་སྐྱལ་མ་འབད་མི་འདི་ཨིན།

སློབ་སྟོན་གྱི་ཡིག་བྱིས་མ་འདི་ གཏེ་འབད་? དང་ ནམ? ཟེར་བའི་དྲི་བ་ཚུ་གི་སྐོར་ལས་ ཁ་གསལ་བཀོད་དེ་ དམིགས་བསལ་གྱི་ལས་སྣ་ མཇུག་བསྡུ་ནིའི་དོན་ལུ་ གཅིག་འབད་དགོས་ཨིན་ན་ དེའི་སྐོར་ལས་ བཤད་པ་རྒྱབ་ཨིན། སློབ་སྟོན་གྱི་ཡིག་བྱིས་མ་དང་ལུ་ ཚུད་མི་ཚུ་ དྲྭ་འབད་བ་ཅིན། ས་གནས་ འཚོལ་འཐོབ་ནིའི་དོན་ལུ་ བཀོད་རྒྱ་ཆེན་ནི་དང་། དངོས་པོའི་རིགས་ཅིག་ བཟོ་ནིའི་དོན་ལུ་ ཅ་ཆས་དང་ དེའི་བྱ་རིམ་ཚུ་ ཐོ་བཀོད་འབད་ནི། སྤྱི་བྱང་འཚབས་ཆེན་གྱི་སྐབས་ལུ་ གཅིག་འབད་དགོས་ཨིན་ན་ དེའི་སྐོར་ལས་ བཤད་པ་རྒྱབ་ནི་ཚུ་ཨིན།

བརྟེ་སོར་ཡིག་བྱིས་མ་གི་དམིགས་ཡུལ་འདི་ སྟེ་ཚན་གཉིས་ ཡང་ དེ་ལས་མང་བའི་ སྟེ་ཚན་ཚུ་གི་བར་ན་ བརྟ་དོན་བརྟེ་སོར་འབད་དེ་ དམིགས་བསལ་གྱི་ དམིགས་དོན་བསྟུབ་ནི། དཔེར་ན། གཅིག་ འབད་ནིའི་དོན་ལུ་ ག་སྒྲིག་འབད་ནི། ལ་སོགས་པའི་ཡིག་བྱིས་མ་ཚུ་ཨིན། བརྟེ་སོར་འདི་ ཆར་སོགས་ལས་བརྟ་འཕྲིན། ཡང་ ཅ་ལ་སྐྱེལ་སྤྲོད་དང་འབྲེལ་བ་ཡོད་པའི་ཡིག་འགྱུལ། ལ་སོགས་པའི་ ལྷག་ནིའི་རིགས་ཚུ་གི་ དཔེ་མཚོན་མ་ཨིན།

གོང་གི་ཡིག་བྱིས་མ་དབྱེ་བ་ཚུ་གིས་མ་དོ་བར་ བྱིའི་འབྲི་ལྷག་ཤེས་ཡོན་ནང་ལུ་ སློབ་རིམ་གསུམ་པའི་དོན་ལུ་ ཆོག་གཅིག་དང་ རྩོད་ཕན་ ཡང་ན་ རྩོད་ཆོག་ཚུ་གི་གོ་བ་ལེན་ཚུགས་མི་ཚུགས་ཀྱི་ དབྱེ་ཞིབ་ཡང་ཚུད་པ་འབད་ འབད་ནི་ཨིན། དེ་ཚུ་ **ཁ་ཡིག་བཏགས་ནིའི་** དབྱེ་ཁག་སྟེ་ བཞག་ནི་ཨིན།

ཡིག་བྱིས་མ་གི་དབྱེ་བའི་ ལྷིད་ཚད་ཚུ་ ཆོད་ཅིས་ སྟེ་རིམ་གཅིག་ནང་ལུ་ རྩིས་རྒྱབ་སྟེ་ བཟོ་བཀོད་དང་ནང་དོན་ རྩོད་ཁའི་རྩ་གཞུང་ལུ་གཞི་བཞག་སྟེ་ བཟོ་ཡོད་མི་ཚུ་ ཐིག་ཁྲམ་ ༤ ནང་ལུ་འཁོད་དེ་ཡོད་པ་ཨིན།

ཐིག་ཁྲམ་ ༤ (Table 4): *ལྷག་ནིའི་འབྲི་ལྷག་ཤེས་ཡོན་ནང་གི་ སྟེ་རིམ་གེ་ར་ལུ་ ཡིག་བྱིས་མ་གི་དབྱེ་བའི་ ལྷིད་ཚད།*

ཡིག་བྱིས་མ་གི་དབྱེ་བ།	སྟེ་རིམ་ ༣ པ།	སྟེ་རིམ་ ༥ པ།	སྟེ་རིམ་ ༧ པ།
འཆར་སྣང་	༢༥-༣༥%	༢༠-༣༠%	༡༠-༢༠%
འགྲེལ་བཤད།	༢༠-༣༠%	༣༠-༤༠%	༢༠-༣༠%
རྒྱུད་སྐུལ།	༥-༡༥%	༡༠-༢༠%	༢༥-༣༥%
སློབ་སྟོན།	༡༠-༢༠%	༡༠-༢༠%	༡༠-༢༠%
བརྟེ་སོར།	༥-༡༥%	༥-༡༥%	༡༠-༢༠%
ཁ་ཡིག་བཏགས་ནི།	༥-༡༥%	༠%	༠%

སྐུའི་ལྷིད་ཚད་ཆོད་ཅིས་སྟོན་ཡོད་མི་འདི་གིས་ ཡིག་བྱིས་མ་སྟ་ཁག་མ་འདྲཔ་ཚུ་ སློབ་ཁྲག་གི་སྟེ་རིམ་དང་འཁྱིལ་ཏེ་ ཚུད་དགོས་ ཁག་ཆེའི་སྐོར་ དབུ་གསལ་འབད་ཚུགས་པ་གིས་མ་ཚད། ལོ་ཚད་མ་འདྲཔ་གི་ དབྱེ་བ་དང་འཁྱིལ་ཏེ་ ཡིག་བྱིས་མ་འདྲཔ་བཙུགས་ནིའི་ དབུ་གསལ་ཚུ་ཡང་འབད་ཐུབ་ཨིན། དཔེ་འབད་བ་ཅིན། སློབ་ཁྲག་ཚུ་ སྟེ་རིམ་ཡར་སེང་འགྱོཔ་དང་ རྒྱུད་སྐུལ་དང་འབྲེལ་བའི་ཡིག་བྱིས་མ་ཚུ་ འོང་སྲིད་ནི་ཨིན་ལས་བརྟེན་ཏེ་ སློབ་ཁྲག་ཚུ་ སྟེ་རིམ་མཐོ་སུ་ནང་ཡོད་དོ་བཟུམ་སྟེ་ དབྱེ་ཞིབ་འབད་དགོས་འདི་ཁག་ཆེ། སྟེ་རིམ་ ༣ པའི་ནང་ མང་སུ་ཅིག་སྡུད་དང་ འཆར་སྣང་གི་ཡིག་བྱིས་མ་ཚུ་འོང་སྲིད།

༢.༣.༢.༢ ཡིག་བྱིས་མ་གི་ སྒྲིག་བཀོད་དང་མདུན།

ཡིག་བྱིས་མ་གི་བཟོ་བཀོད་མ་འདྲ་ཚུ་ཡང་ འཕྲོ་མཐུད་འབད་ཡོད་མི་དང་ མེད་མི། དེ་ལས་ སྤུ་སྣེ་འབད་ཡོད་མི་བཅས་ དབྱེ་བ་གསུམ་ཡོད། **འཕྲོ་མཐུད་འབད་ཡོད་མི་ ཡིག་བྱིས་མ**་འདི་འབད་བ་ཅིན་ རྩོད་ཆོག་ཚུ་ རྩོགས་པ་འབད་ སྔར་སྒོལ་ལམ་ལུགས་ལྟར་ དོན་མཚམས་ཀྱི་གཞི་བཀོད་བཟོ་སྟེ་ཡོད་པ་ཞིན། དེ་ལས་ **འཕྲོ་མཐུད་མེད་མིའི་ཡིག་བྱིས་མ**་ནང་ལུ་འབད་བ་ཅིན་ རྩོད་ཆོག་མཐུག་མ་ བསྡུམ་དང་ ཡང་ན་ རྩོད་ཐན་ཚུ་འོངམ་ཞིན། དཔེར་ན། ཚག་ཐིག་བཀག་ཉེ་ཡོད་མིའི་རྩོད་ཆོག་བཟུམ། འཕྲོ་མཐུད་མེད་པའི་ཡིག་བྱིས་མ་གི་ནང་དོན་ཚུ་ དོན་མཚམས་མ་བཟོ་བར་ཡིག་རྒྱུགས་ཚུ་ ཐིག་སྒྲིམ་ནང་ལུ་བཙུགས་ཉེ་བྱེ་ནི་དང་ གཞན་ཡང་ ཐིག་ཁྲམ། པར་རིས་ཚུ་གི་ཐོག་ལས་འོངས་ཐིན། **ཡིག་བྱིས་མ་ སྤུ་བསྡེ**་གི་ནང་དོན་ནང་ལུ་འབད་བ་ཅིན་ འཕྲོ་མཐུད་ཡོད་མི་དང་མེད་མི་གཉིས་ཆ་ར་ ཡིག་བྱིས་མ་ཆུང་པ་ནང་ཚུདཔ་འབད་འོངམ་ཞིན། དེའི་དཔེའི་གྲངས་སུ་ ཨོག་གྲངས་འབད་ཡོད་པའི་གསར་ཨོག་ནང་ལུ་ ལྷག་ཆོག་དང་ ཐིག་ཁྲམ་ཚུ་གཅིག་ཁར་ཡོད་པ་བཟུམ་དང་ ཡང་ན་ ཡིག་བྱིས་ཁག་མ་འབྲལ་ཚུ་ བརྩོད་དོན་གཅིག་དང་ བཟོ་བཀོད་གཅིག་གི་ཐོག་ལུ་བྱིས་ཀྱེ་ཡོད་མི། དཔེ་འབད་བ་ཅིན། གནད་དོན་གཅིག་གི་ཐོག་ལུ་ རྩོམ་སྒྲིག་པ་མ་འབྲལ་ཚུ་གིས་ བསམ་འཆར་བཀའ་ནི།

མཚོ་རྩེགས་དྲགས་འབད་ཡོད་པའི་ ཡིག་བྱིས་མ་ཚུ་ སྐེ་རིམ་དང་འཁྲིལ་ཀྱེ་ཡར་སེང་ དེས་བརྟན་བཟོ་དགོ་པ་འདི་གལ་ཅན་ཅིག་ཡིན། མཚོ་རྩེགས་དྲགས་ཀྱི་ཡིག་བྱིས་མ་ཚུ་ འཛལ་ནི་ཐབས་ལམ་ལེ་ཤ་ཡོད་པའི་ནང་ལས་མང་ཤོད་འདི་ ཚད་འཛལ་ཚུགས་མི་ཅིག་ཡིན། དེ་འབད་ལས་ སྐེ་རིམ་རེ་རེ་ནང་གི་ ཡིག་བྱིས་མ་གི་མང་ཤོད་འདི་ འོག་གི་ཐིག་ཁྲམ་ ༥ ནང་ལུ་བཀོད་དེ་ཡོད་དོ་བཟུམ་ཡིན།

ཐིག་ཁྲམ་ ༥ (Table 5): *ལྷག་ཤེའི་འབྲི་ལྷག་ཤེས་ཡོན་ནང་གི་ སྐེ་རིམ་གེ་ར་ལུ་ ཡིག་བྱིས་མ་གི་མང་ཤོད་ ཚོད་རྟེས།*

སྐེ་རིམ།	ཡིག་བྱིས་མ་གི་མང་ཤོད། (ཡིག་བྱིས་མ་གི་རྣམ་པ་གཅིག)
སྤྱི་རིམ་ ༣ པ།	ཚེག་འབྲུ ༡-༡༠༠
སྤྱི་རིམ་ ༤ པ།	ཚེག་འབྲུ ༡༠༠-༣༥༠
སྤྱི་རིམ་ ༥ པ།	ཚེག་འབྲུ ༢༠༠-༣༥༠

རྩོད་ཁའི་ཡིག་བྱིས་མ་གི་ ཚོད་རྟེའི་མདུན་དང་དུས་ཚོད། བཟོ་བཀོད། གནས་སྟངས་ཚུ་ རྩོད་ཁའི་རྩ་གཞུང་བཀོད་རིས་ལུ་གཞི་བཞག་སྟེ་བཟོ་ཡོད་པ་ཞིན། སྤྱི་པཱུག་གི་ལོ་ཚད་དང་ རིག་སྟོབས་གོང་འཕེལ་ལུ་ཡང་ གཞི་བཞག་ཡོད་པ་ཞིན། ཚ་གྱངས་གཞན་མི་འདི་ཡང་ ཡིག་བྱིས་མ་གི་མདུན་དང་ མཚོ་རྩེགས་དྲགས་ཚུ་ལངམ་འབད་ དེས་བརྟན་བཟོ་ནི་འདི་ཞིན། འདིའི་དོན་ལུ་ ལྷག་སྟེ་ གོ་བ་ལེན་ནིའི་ནང་གསེས་ཀྱི་རིག་རྩལ་ཆ་མཉམ་ དབྱེ་ཞིབ་འབད་ཚུགས་པའི་ དྲི་བ་ཚུ་ཚུད་དགོ་པ་ཞིན།

༢.༥ དྲི་བའི་རྣམ་པ།

དྲི་བའི་རྣམ་པ་ཚུ་ དྲི་བའི་ལན་རྐྱབ་ཚུགས་ནིའི་དོན་ལུ་ རིག་སྟོབས་ཀྱི་གནས་རིམ་དང་བསྟུན་པའི་ བྱ་རིམ་དང་འབྲེལ་ཏེ་བཟོ་དགོཔ་ཨིན།

༢.༥.༡ རིག་སྟོབས་བྱ་རིམ།

ལྷག་ནིའི་འབྲི་ལྷག་ཤེས་ཡོན་དབྱེ་ཞིབ་ནང་ལུ་ འོག་ལུ་ཁ་གསལ་བཀོད་ཡོད་པའི་ རིག་སྟོབས་ཀྱི་བྱ་རིམ་ རྣམ་པ་བཞི་ཚུད་པ་ཨིན།

ཐིག་ཁྲམ་ ༦ (Table 6)༑ ལྷག་ནིའི་འབྲི་ལྷག་ཤེས་ཡོན་གྱི་ རིག་སྟོབས་ཀྱི་བྱ་རིམ།

དབྱེ་ཨང་།	བྱ་རིམ།	འགྲེལ་བཤད།
ལྷག་ནིའི་བྱ་རིམ་དངཔ།	བརྡ་དོན་འཚོལ་ནི།	སློབ་ཕྲུག་ཚུ་གིས་ ཡིག་བྲིསམ་ནང་ལུ་ཁ་གསལ་བཀོད་དེ་ཡོད་པའི་ བརྡ་དོན་འཚོལ་ཏེ་ དམིགས་བསལ་གྱི་བརྡ་དོན་ཅིག་ བཏོན་ཚུགས་དགོཔ་ཨིན། འཕྲུལ་འཕྲུལ་སྐབས་ བརྡ་དོན་འཚོལ་དགོ་མི་འདི་ ཛོད་ཚིག་གཅིག་ནང་དང་ འཕྲུལ་འཕྲུལ་སྐབས་དོན་མཚམས་ཚུ་གི་ནང་ལས་འཐོབ་ཨིན། མཁས་མཆོག་ གེ་རེ་ (༡༩༨༠) གིས་འབད་བ་ཅིན་ འདི་བཟུམ་སྦེ་ལྷག་ནི་ལུ་ ཛོད་ཚིག་ལྷག་ནི་ཟེར་སླབ་ཨིན་པས། ག་ཅི་འབད་ཟེར་བ་ཅིན་ དེ་ནང་ལུ་ གོ་དོན་འགྲེལ་དགོཔ་མེདཔ་ ཡངན་ གོ་དོན་འགྲེལ་དགོཔ་ཨུང་སུ་ཅིག་ལས་ མེད་ནི་འདི་གིས་ཨིན་པས།
ལྷག་ནིའི་བྱ་རིམ་གཉིས་པ།	གོ་དོན་ཚུ་ལེན་ཏེ་ བརྡ་དོན་ཚུ་བཤད་པ་རྐྱབ་ནི།	སློབ་ཕྲུག་ཚུ་གིས་ ཡིག་བྲིསམ་ནང་གི་གོ་དོན་ འདི་ཏ་གོ་སྟེ་ གནས་ཚུལ་དང་བརྡ་དོན་ཚུ་ གཞན་ལུ་འཛོལ་བ་མེདཔ་ར་ བཤད་པ་རྐྱབ་ཚུགས་པའི་དཔེ་སྟོན་འབད་ནི། དཔེར་ན། སློབ་ཕྲུག་ཚུ་གིས་ ཡིག་བྲིསམ་འདི་ནང་ལས་ བརྗོད་དོན་རྩོམ་དང་ ཡངན་ འབྱུང་རིམ་གྱི་གོ་རིམ་ཚུ་ ངོས་འཛིན་འབད་ནི་དང་། དེ་ལས་བརྗོད་དོན་དང་འབྱུང་རིམ་གྱི་འབྲེལ་བ། འབྱུང་རིམ་ཡངན་ འཁྲབ་རྩེད་པའི་བར་ན་ འབྲེལ་བ་ཚུ་ཏ་གོ་སྟེ་བཤད་ཚུགས་ནི། འདི་གུ་ སློབ་ཕྲུག་ཚུ་གིས་ ཁོང་རའི་གོ་དོན་འགྲེལ་བཤད་དང་འབྲེལ་ཏེ་ ཡིག་བྲིསམ་གྱི་བཅུད་དོན་ འཛམ་སངམ་ཚུ་བཏོན་ནི།
ལྷག་ནིའི་བྱ་རིམ་གསུམ་པ།	བརྡ་དོན་གྱི་གོ་དོན་ལེན་ནི།	སློབ་ཕྲུག་ཚུ་གིས་ ཡིག་བྲིསམ་ནང་ལུ་ཁ་གསལ་བཀོད་དེ་ཡོད་པའི་ གནས་ཚུལ་དང་ཡངན་ བརྡ་དོན་ལས་ལྷག་སྟེ་ ཏ་གོ་ཡོད་པའི་དཔྱེ་སྟོན་འབད་དགོ། འདི་འབདཔ་ལས་ སློབ་ཕྲུག་ཚུ་གིས ཡིག་བྲིསམ་འདི་ གོ་དོན་དང་བཅསཔ་འབད་ ལྷག་དགོཔ་ཨིན། དཔེར་ན། སློབ་ཕྲུག་ཚུ་གིས་ ཡིག་བྲིསམ་གྱི་བརྗོད་དོན་རྩོམ་ངོས་འཛིན་དང་ ཡིག་བྲིསམ་དེའི་དོན་ཚན་དབྱེ་ཞིབ་འདི་ མཐོང་ཚུལ་ཅིག་ལས་ལྷག་པའི་ཐོག་ལས་ དབྱེ་ཞིབ་འབད་ནི་དང་ དེ་ནང་གི་སྤྱུས་ཚད་ཡངན་ འཁྲབ་རྩེད་པའི་ལས་འགན་ཚུ་གི་སྐོར་ལས་ གོ་དོན་བཤད་ཚུགས་ནི།

སྒྲུག་ནིའི་བྱ་རིམ་བཞིར་པ།	ཡིག་ཐྲིསམ་གྱི་བསམ་ཞིབ་དང་དབྱེ་ཞིབ།	ཡིག་ཐྲིསམ་གྱི་བསམ་ཞིབ་དང་ དབྱེ་ཞིབ་གྱི་བྱ་རིམ་ནང་གི་དྲི་བ་ཚུ་ནང་ སློབ་ཁྲག་ཚུ་ཡིག་ཐྲིསམ་འདི་ནང་གི་གནས་ཚུལ་དང་ ཁོང་རང་གིས་ཤེས་མི་གཉིས་ འབྲེལ་བ་བཟོ་སྟེ་ དབྱེ་ཞིབ་འབད་ཞིནམ་ལས་ ཐག་གཅད་བཏུགཔ་ཨིན། རིག་རྩལ་འདི་ ཡིག་ཐྲིསམ་དེའི་ནང་ དོན་ལས་བརྒལ་ཏེ་ འགྲེལ་ཤིནམ་ལས་ མཁས་མཆོག་ གེ་རེ་ (༡৮৬০) གིས་འབད་བ་ ཅིན་ འདི་བཟུམ་སྟེ་ཨྲག་ནི་ལུ་ རྩོད་ཚོག་གི་གོ་དོན་ལས་བརྒལ་ཏེ་ ཨྲག་ནི་ཟེར་སྒྲབ་ཨིན་ པས། བྱ་རིམ་འདི་ནང་ ལུ་གི་དབྱེ་ཞག་རྒྱ་ཆེཤ་འབད་ཡོད་མིའི་གྲངས་སུ་ ཡིག་ཐྲིསམ་འདི་ གི་ དམིགས་གཏད་བཟུང་པའི་འབྲེལ་ཡུལ་ ཡང་ན་ རྩོམ་སྒྲིག་པའི་བསམ་སྤྱོད། རྩོད་ཡེན་གྱི་དབྱེ་ཞིབ་འབད་ནི་ ཡང་ན་ འཁྲབ་རྩེད་གི་དབྱེ་ཞིབ་འབད་ནི། ཡིག་ཐྲིསམ་གི་ཚ་ཤས་དཔེར་ན། བཟོ་བཀོད་ལ་སོགས་པ་ཚུ་གི་ ཕན་པ་བཤད་ནི་དང་ འཁྲབ་རྩེད་པའི་བྱ་ སྤྱོད་འདི་ གནས་སྟངས་ངོམ་དང་གཅིག་ཁར་གཅིག་སྦྱར་འབད་ནི།

རིག་སྟོབས་ཀྱི་བྱ་རིམ་གྱི་ ལྷིད་ཚད་ཚུ་ ཚོད་རྟེས་ སྤེ་རིམ་གཅིག་ར་འདི་ནང་ལུ་ རྟེས་རྒྱབ་སྟེ་ བཟོ་བཀོད་དང་སྒྲབས་དོན་ རྩོད་ཁའི་རྩ་ གཞུང་ལུ་གཞི་བཞག་སྟེ་ བཟོ་ཡོད་མི་ཚུ་ ཐིག་ཁྲབ་ ༣ ནང་ལུ་འཁོད་དེ་ཡོད་པ་ཨིན།

ཐིག་ཁྲབ་ ༣ (Table 7): *སྒྲུག་ནིའི་འབྲི་སྒྲུག་ཤེས་ཡོན་ནང་གི་ སྤེ་རིམ་གེ་ར་ལུ་ རིག་སྟོབས་བྱ་རིམ་གྱི་ ཚོད་རྟེས།*

བྱ་རིམ།	སྤེ་རིམ་ ༣ པ།	སྤེ་རིམ་ ༦ པ།	སྤེ་རིམ་ ༨ པ།
བརྡ་དོན་འཚོལ་ནི།	༣༥-༤༥%	༢০-༣০%	১০-২০%
གོ་དོན་རྩུ་ལེན་དེ་ བརྡ་དོན་རྩུ་བཤད་པ་ཆུབ་ནི།	༢༥-༣༥%	༣০-৪০%	২০-৩০%
བརྡ་དོན་གྱི་གོ་དོན་ལེན་ནི།	১৫-২৫%	২০-৩০%	৩০-৪০%
ཡིག་ཐྲིསམ་གི་བསམ་ཞིབ་དང་དབྱེ་ཞིབ།	৫-১৫%	১০-২০%	২০-৩০%

སྤེ་རིམ་མ་འབྱ་བའི་ནང་ དྲི་བའི་དབྱེ་ཁག་སོ་སོའི་ནང་ལུ་ བགོ་བཀྲམ་འབད་ཡོད་མི་འདི་གིས་ སྤེ་རིམ་ཡར་སེང་འགྱོཔ་དུ་མཐོ་བའི་ རིག་སྟོབས་ཀྱི་བྱ་རིམ་དགོ་པའི་ དྲི་བའི་གྲངས་ཀ་ཡར་ སེང་འབད་དགོ་པ་འབད་སྟོན་མི་ཨིན། འདི་གིས་ སློབ་ཁྲག་ཚུ་ཨྲག་ནི་འགོ་བཙུགས་པ་ དང་ ཁོང་གི་དུས་ཚོད་མང་ཤོས་ར་ ཡི་གུ་ངོས་འཛིན་འབད་ཞིནམ་ལས་ཀ་གོ་ནིའི་ནང་ བྱིནམ་ཨིན་ཟེར་སྟོནམ་ཨིན། དེ་ འབད་ལས་ མཐོ་བའི་རིག་སྟོབས་ཀྱི་བྱ་རིམ་ སྟོན་ཚུགས་ནིའི་དོན་ལུ་ ཁོང་གི་ཨྲག་ནིའི་རིག་རྩལ་གོང་འཕེལ་གཏང་དགོཔ་ཨིན།

২.৫ གཞི་གནས་དབྱེ་ཞིབ།

འབྲི་ཨྲག་ཤེས་ཡོན་གྱི་དབྱེ་ཞིབ་ཀྱི་དོན་ལུ་ དབྱེ་ཞིབ་ཀྱི་ལྟ་ཚུལ་ སྐབས་དོན་དང་རིག་སྟོབས་བྱ་རིམ་ སྣ་ཚོགས་འབད་ཚུད་དགོཔ་ཨིན། དེ་བ་ཚུ་གི་སྒྲིག་བཀོད་རྒྱ་ཆེའི་དབྱེ་ཁག་ ༢ ཀྱི་ཐོག་ལས་འོང་དགོཔ་ཨིན། འདི་ཡང་ ལན་གདམ་ཁ་ཅན་གྱི་དྲི་བ་དང་ ལན་ཐུང་གི་དྲི་བ་ཨིན། ཡོན་གྲུབ་འཛལ་ཚད་ རེས་བརྟན་བཟོ་ནིའི་དོན་ལུ་ དྲི་བའི་ཀྱངས་ཁ་ལངས་འབད་བཟོ་ནི་ཨིན།

འོག་གི་སྡེ་ཚན་གྱི་ དྲི་བའི་བཟོ་བཀོད་ཀྱི་དེས་ཆོག་འགྲེལ་ནི། དྲི་བ་ལྟ་ཁག་ཉིད་གི་བཤད་པ་དང་ ལྟབ་སྤྱད་གི་གྲུབ་འབྲས་གདམ་འཐུ་འབད་ཡོད་མི་ཚུ་ ཁ་གསལ་འབད་བཀོད་དེ་ཡོད།

༢.༥.༡ དྲི་བའི་བཟོ་བཀོད།

ལན་གདམ་ཁ་ཅན་གྱི་དྲི་བ་ནང་ལུ་ ལན་གྱི་གདམ་ཁ་མངམ་སྤེ་བཟོ་ཡོད་མི་ནང་ལས་ ལན་དོམ་གཅིག་ གདམ་ཁ་རྒྱབ་སྟེ་དགོས་འདི་ཞིན།

ལན་སྤྱད་གི་དྲི་བ་ནང་ལུ་ ལན་འདི་ ཡི་གུ་སྤེ་བྱི་ནི་དང་ ཡང་སར་སྤེ་བྱི་ནི་ཞིན། ལན་ཡི་གུ་སྤེ་བྱི་བ་ཅིན་ མང་ཉུང་འདི་ དོན་མཚམས་ ༡ ཡང་ན་ ༣ སྤྱང་སུ་འབད་བྱིས་ཡོད་པའི་ རྩོད་ཚོག་ཅིག་འོང་དགོས་ཞིན།

དྲི་བའི་བཟོ་བཀོད་ཀྱི་ ལྷིད་ཚད་ཆུ་ ཆོད་རྩིས་ སྡེ་རིམ་གཅ་ བིག་ཁྲམ་ ༡ ནང་ལུ་འཁོད་དེ་ཡོད་པ་ཞིན།

དྲི་བའི་བཟོ་བཀོད་ཀྱི་ བགོ་བཀྲམ་ལྷི་ཚད་འདི་ སྡེ་རིམ་གེ་ར་ནང་ལུ་ ཅོག་འཐད་པ་ཞིན།

བིག་ཁྲམ་ ༡ (Table 8): *ལྟབ་ཞིའི་འབྲི་ལྟབ་ཤེས་ཡོན་ནང་གི་ སྡེ་རིམ་གེ་ར་ལུ་ དྲི་བའི་བཟོ་བཀོད་ཆོད་རྩིས།*

དཔེ་བ།	བགོ་བཀྲམ།
ལན་གདམ་ཁ་ཅན།	༤༠-༤༥%
ལན་སྤྱད་གི་དྲི་བ།	༦༥-༦༠%

༢.༥.༢ ལྟ་ཁག་ཡོད་པའི་དྲི་བ།

དཔེ་ཞིབ་འདི་ནང་ སློབ་སྦྱོང་ཚུ་གི་ གནས་རིམ་གཅ་རའི་ནང་གི་ཆ་ཤས་གྲུབ་ཀྱི་སྐོར་ལས་ བརྟ་དོན་ལངམ་འབད་ འཛོབ་ནི་དེས་བརྟན་བཟོ་ནིའི་དོན་ལུ་ ཁྱབ་ཚད་རྒྱ་ཆེ་བའི་ ལྟ་ཁག་ཡོད་པའི་དྲི་བ་ཚུ་ཚུད་དགོས་གལ་ཆེ། དེ་འབདཔ་ལས་བརྟེན་ དྲི་བ་བཟོ་བའི་སྐབས་སུ་ དྲི་བ་བཟོ་མི་སྡེ་ཚན་གྱིས་ དྲི་བ་ཚུ་ཤེས་ཚད་ཆམཉམ་གྱི་གནས་ཚད་ལུ་ ཁྱབ་ཚུགས་པའི་ ལྟ་ཁག་ཡོད་པའི་དྲི་བ་ཚུ་བཟོ་དགོ། དྲི་བའི་བསྒྲུབ་ཞིབ་དང་མོ་བཏབ་གནས་སྤྱད་ཚུ་ ལག་ལེན་འཐབ་སྟེ་ དྲི་བ་ཚུའི་ ལྟ་ཁག་པའི་ཁྱབ་ཚད་འདི་ དཔེ་ཞིབ་འདི་ནང་ལུ་ ལངམ་འབད་དེས་བཏྲན་བཟོ་ནི།

༣.༥ དུས་རབས་ ༡༡ པའི་ རིག་རྩལ་དང་བརྩེ་མཐོང་བྱེ་ཞིབ།

འཁྲུག་གི་ཤེས་རིག་ལམ་སྟོན་བཀོད་རིས་ ༢༠༡༩-༢༠༢༩ ཅན་མའི་ནང་ཁ་གསལ་སྒེ་བཀོད་དེ་ཡོད་པའི་ ཤེས་ཡོན་ཁྱད་ཆོས་དགུསོ་གིས་ རང་རྒྱུད་ཡང་ན་ གཅིག་མཐུན་ཀྱི་ཤེས་ཡོན་གྱི་སྤུས་ཚད་ཚུ་ བརྟེན་འབད་ཞིབ་ཤེས་རིག་དབྱེ་ཞིབ་ནང་ལུ་ དུས་རབས ༡༡ པའི་རིག་རྩལ་སྡེབ་གྲྭ་ཚུ་ དབྱེ་ཞིབ་འབད་ཞིབ་དང་ གནས་སྟངས་དེ་ སྒོབ་ཁྲག་གི་ཤེས་ཡོན་ ཁྱད་ཆོས་དགུས་འདི་ལུ་ གཞི་བཞག་ནི་ཨིན།

སྒོབ་ཁྲག་གི་ ཤེས་ཡོན་ཁྱད་ཆོས་དགུ་ དབྱེ་ཞིབ་ཀྱི་དོན་ལུ་ རིག་སྟོབས་གཞི་གནས་ལུ་ གཅོ་བོང་བརྟེན་པའི་ ལག་ཆས་འདི་ དབྱེ་ཞིབ་ཐབས་ལམ་དྲག་ཤོས་ཅིག་མེན། དེ་འབདཔ་དང་ ཡིག་བྱིསམ་ཚུ་ རིག་རྩལ་ཀྱི་ཐོག་ལས་བཟོ་ནི་དང་ གདམ་འཐུ་ལེགས་ཤོམ་སྒེ་འབད་བ་ཅིན་ དབྱེ་ཞིབ་འབད་ཚུགས། དེ་འབདཔ་ལས་ འབྲི་ལྷག་ཤེས་ཡོན་ཀྱི་ནང་ རིག་སྟོབས་གཞི་གནས་ཀྱི་ལག་ཆས་ཀྱིས་ ཤེས་ཡོན་དང་ རིག་རྩལ་ཀྱི་འབྲེལ་བ་ཡོད་མི་ཚུད་ཆོས་ཚུ་ འཛལ་ཚད་འབད་ཞིབ་ཨིན། ཚུད་ཆོས་གསུམ་འདི་གཤམ་ལུ་འཁོད་ཡོད་པ་ཨིན།

๑) ཤེས་ཡོན་དང་གོ་རྟོགས།

๒) བློ་རིག་སྟོགས་གྲུབ།

๓) བརྟན་སྒོད་ལེན་གྱི་སྟོགས་གྲུབ།

སྒོབ་ཁྲག་གི་ཤེས་ཡོན་ཚུད་ཆོས་གཞན་མི་དུག་པ་འདི་ རྒྱབ་རྟེན་དེ་བ་གིས་འབད་ གསལ་སྟོན་འབད་ནི་ཨིན།

ཐིག་ཁམ། ๙ (Table 9): *སྐྱ་ནིའི་འབྲི་སྐྱ་ཤེས་ཡོན་ནང་གི་ སྒོབ་ཁྲག་གི་ཤེས་ཡོན་ཚུད་ཆོས།*

སྒོབ་ཁྲག་གི་ཤེས་ཡོན་ཚུད་ཆོས།
ཤེས་ཡོན་དང་གོ་རྟོགས་ཅེར་མི་འདི་ མི་ཚུ་གིས་ རང་སོའི་སྟོགས་གྲུབ་ཀྱི་རེ་དོན་འགྲུབ་ནི་དང་ གདོང་ལེན་ཚུ་བྱོ་རིག་ཅན་གྱི་སྒོ་ལས་ འཛེལ་མཐུན་འབད་དེ་ མི་སྤེ་ལུ་ཐོག་གསལ་ཤོམ་འབད་ཚུགས་ནིའི་དོན་ལུ་ འབྲི་སྐྱ་ཤེས་ཡོན་ཀྱི་གཞི་རྟེན་དགོངས་དོན་ཚུ་ ལེན་ཚུགས་པའི་སྟོགས་གྲུབ་འདི་ལུ་སྤྲལ་ཨིན། འབྲི་སྐྱ་ཤེས་ཡོན་ཅན་གྱི་མི་ཁྱངས་ཚུ་གིས་ འོག་གི་ཤེས་ཡོན་དང་གོ་རྟོགས་ཀྱི་སྟོགས་གྲུབ་ཚུ་ དཔེ་སྟོན་འབད་ཨིན། ➢ རང་དང་མཐའ་འཁོར་ དེ་ལས་རྒྱལ་སྤྱིའི་གནད་དོན་ཚུ་གི་སྐོར་ལས་ གནས་ཚུལ་འཛོག་ནིའི་དོན་ལུ་ ཡིག་བྱིསམ་ཚུ་ གཏིང་ཟབ་པའི་གོ་རྟོགས་ཀྱི་ཐོག་ལས་སྐྱ་ཤེས་མ་ཚད་ འབྲི་སྐྱ་གི་སྡོལ་མ་འདྲཔ་ཚུ་ལུ་ཡང་ ངལ་རངས་བསྐྱེད་ཨིན། ➢ ཡིག་བྱིསམ་ཚུ་ལས་ འཛེལ་བ་ཡོད་པའི་ བརྟན་སྒོད་ཚུ་ལེན་དེ་ འོས་འབབ་ཡོད་པའི་གྲོས་ཐག་བཅད་ནི། ➢ ཡིག་བྱིསམ་ནང་གི་ བརྟན་སྒོད་ཚུ་ རངས་མཐའ་འཁོར་ དེ་ལས་རྒྱལ་སྤྱིའི་གནས་ཚད་ནང་ཡོད་པའི་ དཀའ་ངལ་དང་གདོང་ལེན་ཚུ་ བསལ་ནིའི་དོན་ལུ་ གོ་བ་བཤད་དེ་ ལག་ལེན་འཐབ་ནི་དང་། ➢ ཡིག་བྱིསམ་སྐྱ་མིའི་ཤེས་ཡོན་འདི་གིས་ གནས་སྟངས་གཅིག་ནང་ལས་གཞན་ལུ་ འཛེལ་མཐུད་དང་སྐྱབས་སྤྱོལ་ཐབས་འབད་ཞིབ་ཨིན།

སློབ་རིག་གི་སྒོམ་གསུལ་གྱུརཅེར་མི་འདི་ མཉོ་དཔྱད་འབད་ནི་དང་ དཀའ་ངལ་སེལ་ཐབས། དེ་ལས་ གསར་བཏོད་རིག་རྩལ་ཚུ་གིས་ འོས་འབབ་ཡོད་པའི་ཡོན་ཏན་དང་ ཐབས་ཤེས་གསར་བཟོ་སྤེ་ ལག་ལེན་འཐབ་ཚུགས་མི་ལུ་སྤྲུབ་ཨིན།

འབྲི་ལྷག་ཤེས་ཡོན་ཅན་གྱི་མི་ཁུངས་ཚུ་གིས་ འོག་གི་ཁྱད་ཆོས་ཚུ་ དཔེ་སྟོན་འབདཝ་ཨིན།

- ཤེས་ཡོན་གསར་བཏོད་ཀྱི་ངོན་ལུ་ བརྟ་ངོན་ལག་ལེན།
- གནད་དོན་ཚུ་ ཅ་ཚོ་ནིའི་ངོན་ལུ་ བརྟེན་དཔྱད་དང་བསམ་འཆར་ཚུ་ བརྟག་ཞིབ་ཀྱི་སྐོར་ལས་དབྱེ་ཞིབ་འབད་ནི།
- མི་ཆེ་ངེས་ནའི་དཀའ་ངལ་དང་ མགོ་སྐྱེགས་དཀའ་ངལ་ཚུ་ བསལ་ནིའི་ངོན་ལུ་ བརྟ་ངོན་ཚུ་བརྟག་ཞིབ་ཐོག་ལས་ ངོས་འཛིན་དང་དབྱེ་དཔྱད་འབད་ནི།
- འབྲུང་གནས་མ་འདྲཝ་ཚུ་ལས་ ཐོན་པའི་ཆོད་དོན་ཚུ་ བརྟག་ཞིབ་ཀྱི་སྐོར་ལས་དབྱེ་ཞིབ་འབད་དེ་ འོས་འབབ་ཡོད་པའི་གྲོས་ཐག་གཅད་ནི་དང་།
- ཡིག་ཆེས་མ་ཚུ་ལུ་ བསམ་ཞིབ་འབད་དེ་ གོ་བ་དང་འོས་འབབ་ཡོད་པའི་ དབྱེ་ཞིབ་ཚུ་འབད་ཚུགས་ནི།

བརྟོན་སྤྱོད་ལེན་གྱི་སྒོམ་གསུལཅེར་མི་འདི་ ཇོང་ཁའི་ཤེས་ཡོན་མཐར་ཕྱིན་པའི་སྐོར་ལས་ བསམ་འཆར་བཀོད་ནི་དང་ གནད་དོན་སྐྱེགས་དགས་ཚུ་ ཅ་ཚོ་ཚུགས་པའི་སྒོམ་གསུབ་ལུ་ སྤྲད་ཨིན།

འབྲི་ལྷག་ཤེས་ཡོན་ཅན་གྱི་མི་ཁུངས་ཚུ་གིས་ འོག་གི་བརྟ་དོན་སྤྱོད་ལེན་གྱི་སྒོམ་གསུབ་ཚུ་ དཔེ་སྟོན་འབདཝ་ཨིན།

- ལྷག་སྐྱེ་ཡོད་པའི་ བརྟ་དོན་དང་དགོངས་དོན་ཚུ་ བཅུད་བསྡུ་འབད་ནི།
- ལྷག་སྐྱེ་ཡོད་པའི་བརྟ་དོན་དང་བསམ་འཆར་ཚུ་ འོས་འབབ་ཡོད་མི་སྐྱེ་དང་ ལམ་སྲོལ་གྱི་མཐོང་ཚུལ་སྐོར་ལས་དབྱེ་ཞིབ་འབད་ནི།
- དག་ཐོག་དང་ཡིག་ཐོག་གི་བགོད་རྒྱ། བྱ་རིམ་དང་ བརྟ་དོན་གཞན་ཐོབ་ཡོད་མི་ཚུ་ ལེགས་ཤོམ་འབད་ལག་ལེན་འཐབ་ནི་དང་།
- མགུ་རྟེགས་ཅན་གྱི་བརྟ་དོན་དང་ གནད་དོན་ཚུ་ ཕན་ཚུས་ཅན་གྱི་ཐོག་ལས་ དབྱེ་དཔྱད་དང་དོགས་སེལ་འབད་དེ་ གོ་བ་བཞག་ནི།

༢.༣ ཚད་འཛལ་ཚུགས་པའི་ ལྷབ་སྦྱང་གྲུབ་འབྲས།

པི་སི་དང་ཨོག་ཀུ་གི་ དབྱེ་ཞིབ་ཀྱི་རིམ་ལུགས་འདི་ནང་ རྩ་གཞུང་ནང་བཀོད་ཡོད་པའི་ ལྷབ་སྦྱང་གྲུབ་འབྲས་ཚུ་གར་ ཚད་འཛལ་མི་ཚུགས། དེ་འབདཔ་ལས་ ལྷབ་སྦྱང་གྲུབ་འབྲས་ཚུ་བསྒྲུབ་ཞིབ་འབད་དེ་ ཚད་འཛལ་ཚུགས་མི་ཚུ་གདམ་འཐུབ་འབད་དེ་བཙུགས་ཡོད། སློབ་ཕྲུག་ཚུ་གིས་རིག་སྐོབས་ཀྱི་ཁུངས་ཚུ་ གསལ་སྟོན་འབད་ཚུགས་ནིའི་དོན་ལུ་ སྡེ་རིམ་ (སྡེ་རིམ་༣, ༤, ༥ པ།) དང་ བསྟུན་ འོག་ལས་སྡེ་རིམ་ ༢ དང་ ལྷག་ལས་སྡེ་རིམ་ ༢ ཀྱི་འོས་ལྷན་ཡོད་པའི་ ལྷབ་སྦྱང་གྲུབ་འབྲས་ཚུ་ ངོས་འཛིན་དང་ བསྒྲུབ་ཞིབ་འབད་དེ་ བཙུགས་ཡོད། དཔེར་ན། སྡེ་རིམ་དྲུག་པའི་ལྷབ་སྦྱང་གྲུབ་འབྲས་ དབྱེ་ཞིབ་ནང་ལུ་ སྡེ་རིམ་བཞི་པ་ལས་བརྒྱད་པ་ཚུན་ཚོ་ ལྷབ་སྦྱང་གྲུབ་འབྲས་ཚུ་ ཚུད་དེ་ཡོད།

མིག་ཁམ་ ༡༠ གིས་ ཚད་འཛལ་ཚུགས་པའི་ ལྷག་ནིའི་འབྲི་ལྷག་ཤེས་ཡོན་ཀྱི་ སློབ་རིམ་ ༣ པ་ ༤ པ་དང་ ༥ པ་གི་ལྷབ་སྦྱང་གྲུབ་འབྲས་སྟོན་ཨིན།

ཐིག་ཁྲམ་ ༡༠ (Table 10): གཞི་ ཚད་འཛལ་ཚུགས་པའི་ སྐག་ནེའི་འབྲི་སྐག་ཤེས་ཡོན་ཀྱི་ སྐབ་སྦྱངས་གྲུབ་འབྲས།

སྡེ་རིམ་ ༣ པ།	
སྡེ་རིམ་༡ པ། སྐག་ནི་ ༡ པ།	མིང་མཐའ་ཡོད་པའི་ མིང་ཚིག་ཚུ་ སྐག་ཚུགས་དགོ།
སྡེ་རིམ་༢ པ། སྐག་ནི་ ༢ པ།	རྩོད་ཚིག་ཐུང་ཀུ་རེ་ ཚིག་མཚམས་བཅད་དེ་ སྐག་ཚུགས་དགོ།
སྡེ་རིམ་༢ པ། སྐག་ནི་ ༣ པ།	ཞ་ཟུར་དང་ ལོག་ཡིག་དང་མཐུག་ཡིག་ཚུ་ རོས་འཛིན་འབད་དེ་ སྐག་ཚུགས་དགོ།
སྡེ་རིམ་༣ པ། སྐག་ནི་ ཉ པ།	རྩོད་ཁའི་ ཡིག་གཟུགས་གར་ རོས་འཛིན་འབད་དེ་ སྐག་ཚུགས་དགོ།
སྡེ་རིམ་༣ པ། སྐག་ནི་ ཅ པ།	ཉེན་བསྐྱར་ ལག་ལེན་འཐབ་མི་ མིང་ཚིག་ཚུ་སྐག་སྟེ་ གོ་དོན་ལེན་ཚུགས་དགོ།
སྡེ་རིམ་༣ པ། སྐག་ནི་ ཆ པ།	དོན་ཚན་ འཛམ་ཇོང་ཡོད་པའི་ རྩོམ་རིག་ཐུང་ཀུ་ཚུ་སྐག་སྟེ་ གོ་དོན་ ལེན་ཚུགས་དགོ།
སྡེ་རིམ་༣ པ། སྐག་ནི་ ཇ པ།	མཐའ་འཁོར་ལུ་ཡོད་པའི་ པར་གྱི་བརྡ་ཁྱད་ འཛམ་ཇོང་ཇོ་རྟེ་ཚུ་སྐག་སྟེ་ བརྡ་སྐྱོང་ འབད་ཚུགས་དགོ།
སྡེ་རིམ་༣ པ། སྐག་ནི་ ཉ པ།	མིང་གཞི་ལུ་ སྟོན་འཛུགས་དང་ མགོ་ཅན་འདོགས་ཅན་ཞུགསཔ་དང་ རྩོད་སྐྱ་ཐུང་འགྱོ་མི་ཚུ་ ཁྱད་པར་ཕྱེས་ཏེ་ སྐག་ཚུགས་དགོ།
སྡེ་རིམ་༤ པ། སྐག་ནི་ ཀ པ།	མིང་གཞི་ ངཱན་ བ་མ་ཡ་ཚུ་ལུ་ སྟོན་འཛུགས་ཞུགས་མ་ཞུགས་ཀྱི་ རྩོད་སྐྱའི་ཁྱད་པར་ཕྱེས་ཏེ་ སྐག་ཚུགས་དགོ།
སྡེ་རིམ་༤ པ། སྐག་ནི་ ༡༠ པ།	གནས་རིམ་དང་བསྟུན་པའི་ སྐད་སྐག་སྟེ་ གོ་དོན་ ལེན་ཚུགས་དགོ།
སྡེ་རིམ་༤ པ། སྐག་ནི་ ༡༡ པ།	སྐད་ཚུ་སྐག་སྟེ་ སྐད་རྩེད་པ་གི་ཁྱད་ཆོས་ཚུ་ ཉ་གོ་ཚུགས་དགོ།
སྡེ་རིམ་༤ པ། སྐག་ནི་ ༡༢ པ།	གཏུངཡིག་ ཞུ་ཡིག་ཚུ་ སྐག་སྟེ་དོན་དག་ གོ་ཚུགས་དགོ།
སྡེ་རིམ་༤ པ། སྐག་ནི་ ༡༣ པ།	ཚིགས་བཅད་ དཔེར་ན། རྩང་མོ་ བློ་ཟེ་ཚུ་ སྐག་ཐངས་ཀྱི་ཁྱད་པར་ཕྱེས་ཏེ་ སྐག་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ།	
སྡེ་རིམ་ ཉ པ། སྐག་ནི་ ༡ པ།	མིང་གཞི་ ངཱན་ བ་མ་ཡ་ཚུ་ལུ་ སྟོན་འཛུགས་ཞུགས་མ་ཞུགས་ཀྱི་ རྩོད་སྐྱའི་ཁྱད་པར་ཕྱེས་ཏེ་ སྐག་ཚུགས་དགོ།
སྡེ་རིམ་ ཉ པ། སྐག་ནི་ ༢ པ།	གནས་རིམ་དང་བསྟུན་པའི་ སྐད་སྐག་སྟེ་ གོ་དོན་ ལེན་ཚུགས་དགོ།
སྡེ་རིམ་ ཉ པ། སྐག་ནི་ ༣ པ།	ཏི་བ་དང་བསྟུན་པའི་ གནད་དོན་ཚུ་ གདམ་འཐུབ་འབད་དེ་ སྐག་ཚུགས་དགོ།
སྡེ་རིམ་ ཤ པ། སྐག་ནི་ ཉ པ།	པར་ཁམ་ ཐིག་ཁམ་ རི་མོ་ཚུ་ལུ་བསྐྱེ་སྟེ་ གོ་དོན་བརྟན་སྐྱར་ འབད་ཚུགས་དགོ།
སྡེ་རིམ་ ཤ པ། སྐག་ནི་ ཤ པ།	སྐད་ཚུ་སྐག་སྟེ་ སྐད་རྩེད་པ་གི་ཁྱད་ཆོས་ཚུ་ ཉ་ གོ་ཚུགས་དགོ།
སྡེ་རིམ་ ཆ པ། སྐག་ནི་ ཆ པ།	གཏུངཡིག་ ཞུ་ཡིག་ཚུ་ སྐག་སྟེ་དོན་དག་ གོ་ཚུགས་དགོ།

སྡེ་རིམ་ ༤ པ། ལྷག་ནི་ ༧ པ།	དྲི་བ་དང་བསྟུན་པའི་ གནད་དོན་ཚུ་ གདམ་ཁ་རྩྭབ་སྟེ་ ལྷག་ཚུགས་དགོ།
སྡེ་རིམ་ ༤ པ། ལྷག་ནི་ ༨ པ།	ཉིན་བསྟར་ ལག་ལེན་འཐབ་མི་མིང་ཚིག་ཚུ་ ལྷག་སྟེ་གོ་དོན་ ལེན་ཚུགས་དགོ།
སྡེ་རིམ་ ༤ པ། ལྷག་ནི་ ༩ པ།	གསལ་བཤད་དང་ ཞབས་ཏ་ རྩངམོ་ཚུ་ལྷག་སྟེ་ རངཔོ་གནས་སྟངས་དང་ གཅིག་ཁང་འཛེལ་བ་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༤ པ། ལྷག་ནི་ ༡༠ པ།	ཚིགས་བཅད་དང་ ཚིག་ལྷུག་ དབྱེ་བ་ཤེས་ཏེ་ ལྷག་ཚུགས་དགོ།
སྡེ་རིམ་ ༤ པ། ལྷག་ནི་ ༡༡ པ།	རྩོམ་རིག་ འཛམ་ཀྱོངཀྱི་ཚུ་ལྷག་སྟེ་ དེ་ནང་གི་ བརྗོད་དོན་དང་ སྐུངཔ་རིལ་གི་ཁྱད་ཆོས་ཚུ་ དབྱེ་དཔྱད་འབད་དེ་ བཟང་དན་ཐྲི་དབྱེ་བ་ ཤེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༤ པ། ལྷག་ནི་ ༡༢ པ།	འགྲེལ་བཤད་དང་ ལོ་རྒྱུས་འཛི་རྩོམ་ཚུ་ལྷག་སྟེ་ དབྱེ་དཔྱད་འབད་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ། ལྷག་ནི་ ༡༣ པ།	སྒོབ་གྲྭ་ནང་ཁྲབ་མི་ ཐུན་དང་ ཇ་མཆོད་ ལྷོ་མཆོད་ཚུ་ལྷག་སྟེ་ དབྱེ་བ་ཤེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ། ལྷག་ནི་ ༡༤ པ།	རྩོམ་རིག་གི་གནད་དོན་ཚུ་ རང་གི་གནས་སྟངས་དང་གཅིག་ཁར་ འཛེལ་བ་འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ། ལྷག་ནི་ ༡༥ པ།	འཛེལ་ཡོད་ རྩོམ་རིག་ཚུ་ལྷག་སྟེ་ དངོས་རྩོམ་དང་ འཆར་རྩོམ་ཐྲི་ཁྲད་པར་ ཤེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༤ པ། ལྷག་ནི་ ༡༦ པ།	ལྷག་དགོ་པའི་དགོས་པ་ཅ་ཚོ་ནི་དང་ རྩོམ་རིག་གི་དཔེ་དེབ་མདངས་ ལྷག་ནི་ལུ་ གོམས་སྦྱང་ ཚུད་ཚུགས་དགོ།
སྡེ་རིམ་ ༤ པ། ལྷག་ནི་ ༡༧ པ།	འཛེལ་ཡོད་ རྩོམ་རིག་ཚུ་ལྷག་སྟེ་ དེ་ནང་གི་གནད་དོན་བཟང་དན་ཚུ་ དབྱེ་བ་ཤེས་ཏེ་ སྤང་བླང་ འབད་ཚུགས་དགོ།
སྡེ་རིམ་ ༤ པ། ལྷག་ནི་ ༡༨ པ།	འཛེལ་ཡོད་ རྩོམ་རིག་ཚུ་བསྒྲུབ་ཞིབ་འབད་ཞིན་ན་ ཁུངས་དོན་ དཔྱད་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ །	
སྡེ་རིམ་ ༥ པ། ལྷག་ནི་ ༡ པ།	འཛེལ་ཡོད་ རྩོམ་རིག་ཚུ་ལྷག་སྟེ་ དངོས་རྩོམ་དང་ འཆར་རྩོམ་ཐྲི་ཁྲད་པར་ ཤེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ། ལྷག་ནི་ ༢ པ།	འཛེལ་ཡོད་ རྩོམ་རིག་ཚུ་ ལྷག་ཞིན་ན་ བརྗོད་དོན་ཚུ་ སྒྲུབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ། ལྷག་ནི་ ༣ པ།	ལྷག་ཐངས་ཀྱི་ ཐབས་ལམ་མ་འདྲཝ་ཚུ་ ལག་ལེན་འཐབ་སྟེ་ ལྷག་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ། ལྷག་ནི་ ༤ པ།	རྩོམ་རིག་གི་གནད་དོན་ཚུ་ རང་གི་གནས་སྟངས་དང་ གཅིག་ཁར་ འཛེལ་བ་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ། ལྷག་ནི་ ༥ པ།	སབ་ཁྲ་དང་ ཐིག་སྒྲིམ་ ཐིག་ཁྲམ་ ཤད་ཁྲམ་ པར་ཁྲམ་ སྒོར་ཁྲམ་ཚུ་ལུ་བལྟ་སྟེ་ བརྗེས་ འབད་ཚུགས་དགོ།
སྡེ་རིམ་ ༤ པ། ལྷག་ནི་ ༦ པ།	དངོས་རྩོམ་དང་ འཆར་རྩོམ་འཛམ་ཀྱོངཀྱི་ཚུ་ ཐབས་ཤེས་མ་འདྲ་བའི་ཐོག་ལས་ལྷག་སྟེ་ གོ་དོན་ ལེན་ཚུགས་དགོ།
སྡེ་རིམ་ ༤ པ། ལྷག་ནི་ ༧ པ།	འཛེལ་ཡོད་ རྩོམ་རིག་ཚུ་བསྒྲུབ་ཞིབ་འབད་ཞིན་ན་ ཁུངས་དོན་ དཔྱད་ཚུགས་དགོ།
སྡེ་རིམ་ ༤ པ། ལྷག་ནི་ ༤ པ།	འཛེལ་ཡོད་ རྩོམ་རིག་ཚུ་ལྷག་སྟེ་ དེ་ནང་གི་གནད་དོན་བཟང་དན་ཚུ་ དབྱེ་བ་ཤེས་ཏེ་ སྤང་བླང་ འབད་ཚུགས་དགོ།

སྡེ་རིམ་ ༤ པ། ལྷག་ནི་ ༥ པ།	ལྷག་དགོ་པའི་དགོས་པ་ཤ་ཚོ་ནི་དང་ རྩོམ་རིག་གི་དཔེ་དེབ་མང་སུ་ ལྷག་ནི་ལུ་ གོམས་སྤྱང་ ཚུད་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ། ལྷག་ནི་ ༡༠ པ།	དཔྱེ་གཏམ་དང་ཁ་བཤད་ཀྱི་ དཔེ་དེབ་ཚུ་ལྷག་སྟེ་ གནས་སྟངས་དང་བསྟུན་ ལཱ་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ། ལྷག་ནི་ ༡༡ པ།	ལྷག་ཐངས་ཀྱི་ ཐབས་ལམ་མ་འདྲཝ་ ཞིབ་ཞིབ་དང་ གདམ་ཁ་རྒྱབ་སྟེ་ ལྷག་ནི་ ཚུ་ ལཱ་ལེན་འཐབ་སྟེ་ གོ་བ་ ལེན་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ། ལྷག་ནི་ ༡༢ པ།	ཤེས་ཚད་དང་བསྟུན་པའི་ རྩོམ་རིག་ལྷག་ཞིན་ལས་ རྩོམ་པ་པོའི་མཛོ་ལུགས་ སྐད་རྩེད་པའི་སྤྱོད་ལམ་ཚུ་ དཔྱེ་བ་ དཔྱད་ཚུགསདགོ།
སྡེ་རིམ་ ༥ པ། ལྷག་ནི་ ༡༣ པ།	ཆོས་སྐད་ནང་ཡོད་མི་ ཞབས་ཁུ་དང་ རྐང་མོ་ གོ་དོན་འཛམ་ཇུང་ཇུ་ཡོད་པའི་ སྐུང་ཚུ་ ལྷག་སྟེ་ གོ་དོན་ ཇ་ གོ་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ། ལྷག་ནི་ ༡༤ པ།	དཔེ་དེབ་ཚུ་ ལྷག་ཞིན་ལས་ གལ་ཆེའི་གནས་ཚུལ་ཚུ་ བསྡུ་ལེན་ འབད་ཚུགསདགོ།
སྡེ་རིམ་ ༡༠ པ། ལྷག་ནི་ ༡༥ པ།	ཤེས་ཚད་དང་བསྟུན་པའི་ རྩོམ་རིག་ སྐུང་ གསུང་བཤད་ ཡིག་འགྲུལ་ འབྲི་རྩོམ་སྟན་ཞུ་ཚུ་ལྷག་སྟེ་ འབྲི་བཤད་ ཀྱི་རིག་རྩལ་དང་ རྩོམ་པ་པོའི་མཛོ་ལུགས་ འབྲི་བཤས་ ཀྱི་ཐབས་རིག་ འབྲུང་རིམ་ཀྱི་ཚོར་སྣང་ སྐུང་རྩེད་པའི་ སྤྱོད་རྣམ་ཚུ་ དཔྱེ་དཔྱད་ འབད་ཚུགས་དགོ།
སྡེ་རིམ་ ༡༠ པ། ལྷག་ནི་ ༡༦ པ།	སྒྲ་གཏམ་ སྐོར་གཏམ་ དཔྱེ་གཏམ་དང་ ལུང་འདྲེན་ཚུ་ དཔྱེ་བ་ཕྱེས་ཏེ་ ལཱ་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༡༡ པ། ལྷག་ནི་ ༡༧ པ།	དཔྱེ་གཏམ་དང་ ཁ་བཤད་ དཔེ་དེབ་ཚུ་ལྷག་སྟེ་ གནས་སྟངས་དང་བསྟུན་ ལཱ་ལེན་ འཐབ ཚུགས་དགོ།
སྡེ་རིམ་ ༡༡ པ། ལྷག་ནི་ ༡༨ པ།	ལྷག་ཐངས་ཀྱི་ ཐབས་ཤེས་མ་འདྲཝ་ཚུ་ ལཱ་ལེན་འཐབ་སྟེ་ ལྷག་ཞིན་ལས་ འབྲུ་དོན་དང་ བརྗོད་དོན་ཀྱི་ གོ་བ་ལེན་ཐངས་ཚུ་ ཤེས་ཚུགས་དགོ།
སྡེ་རིམ་ ༡༡ པ། ལྷག་ནི་ ༡༩ པ།	རྩོད་ཁའི་ རྩོམ་རིག་ཚུ་ལྷག་སྟེ་ བསྒྲུབ་ཞིབ་འབད་ཞིན་ལས་ ཁྲད་ཆོས་དང་འབྲི་ཚུལ་ཚུ་ དཔྱེ་བ་ ཕྱེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༡༡ པ། ལྷག་ནི་ ༢༠ པ།	རྩོད་ཁའི་ དཔེ་དེབ་ཚུ་ལྷག་སྟེ་ འགེལ་བཤད་རྒྱབ་ནི་དང་ བརྒྱུད་དོན་བསྟུ་ནི་ཚུ་འབད་ ཚུགས་དགོ།
སྡེ་རིམ་ ༡༡ པ། ལྷག་ནི་ ༢༡ པ།	རྒྱབ་རྟེན་ཀྱི་དཔེ་དེབ་ཆོས་སྐད་ནང་ཡོད་མི་ དངོས་རྩོམ་དང་ འཆར་རྩོམ་ཀྱི་རིགས་ཚུ་ ལྷག་ཚུགས་དགོ།

ལེའུ་ ༣: རྩོལ་བྱེའི་འབྲས་ཤེས་ཡོན།

༣.༡ དོན་སྙོད།

ལེའུ་ཚན་འདི་གིས་སྤེ་རིམ་ ༤ པ་དང་ ༨ པའི་དོན་ལུ་ བྱེའི་འབྲི་སྒྲུག་ཤེས་ཡོན་གྱི་དབྱེ་ཞིབ་བགོད་རིམ་ གཟྱིག་འབདཝ་ཨིན། བྱེའི་འབྲི་སྒྲུག་ཤེས་ཡོན་གྱི་གཞི་གནས་ནང་ལས་ སྤེ་རིམ་ ༣ པ་འདི་ཕྱིར་བཏོན་འབདཝ་ཡོད་པ་ཨིན། སྤེ་རིམ་ཆུང་བའི་སློབ་ཕྲུག་ཚུ་ལུ་ གཞི་གནས་འདི་ནང་ དབྱེ་ཞིབ་འབདན་ནི་ཨིན་པའི་རིགས་རྣམ་ཚུ་ གོང་འཕེལ་འགྱོ་ནི་ལུ་ དུས་ཡུན་ལེ་ཤ་འགོར་དོ་ཡོདཔ་ལས་ བྱེའི་འབྲི་སྒྲུག་ཤེས་ཡོན་གྱི་དབྱེ་ཞིབ་འདི་ སྤེ་རིམ་གོང་མའི་སློབ་ཕྲུག་ཚུ་ལུ་ འོས་འབབ་དང་སྦྱན་འབེབ་དགོཔ་ཨིན། སྤྱིར་བཏང་ཆུ་ཚེའི་དབྱེ་ཞིབ་ནང་ལུ་ བྱེའི་འབྲི་སྒྲུག་ཤེས་ཡོན་དབྱེ་ཞིབ་འདི་ སྤེ་རིམ་གོང་མའི་ནང་ལུ་ རྒྱུན་འགལ་བ་ཡོདཔ་ཨིན།

བྱེའི་འབྲི་སྒྲུག་ཤེས་ཡོན་དབྱེ་ཞིབ་འདི་ འགོ་དང་པ་ར་ སྤེ་རིམ་དྲུག་པའི་ནང་རྒྱུན་ཤེས་གཅིག་འབདཝ་ཡིན། སྤེ་རིམ་ ༤ པའི་གནས་སྟུད་འདི་ འབྲེལ་ཡོད་དང་ ཁྱད་ལྡན་ཉིད་ལུ་གཞི་བཞག་སྟེ་ བྱེའི་འབྲི་སྒྲུག་ཤེས་ཡོན་དབྱེ་ཞིབ་འདི་ མ་འོངས་སྤེ་རིམ་ ༨ པ་ལུ་ ཡང་དབྱེ་ཞིབ་འབདཝ་སྤྲིད་འོང། ཨིན་རྒྱང་གོང་རིམ་འདི་གིས་ སྤེ་རིམ་ ༤ པ་དང་ ༨ པ་ གཉིས་ཆ་རའི་ བྱེའི་འབྲི་སྒྲུག་ཤེས་ཡོན་གྱི་ གཞི་གནས་ཀྱི་སྐོར་ལས་ བཤད་དེ་ཡོདཔ་ཨིན། གཞི་གནས་འདི་ནང་ སྐད་ཡིག་གི་ཆ་ཤས་ཡིག་སྤྱོད་འདི་ཡང་ དབྱེ་ཞིབ་འབདཝ་ནི་ཨིན།

ལེའུ་འདི་ནང་ལུ་ དངཔ་ར་ བྱེའི་འབྲི་སྒྲུག་ཤེས་ཡོན་ གལ་ཆེ་བའི་སྐོར་ལས་བཤད་པ་ཨིན། དེ་ལས་ བྱེའི་འབྲི་སྒྲུག་ཤེས་ཡོན་དབྱེ་ཞིབ་ནང་ལུ་ དུས་རབས་ ༢༡ པའི་ལྷོགས་གྲུབ་ཚུ་ གཅེས་སྤེ་དགོས་པའི་ཉེན་ཁ་དང་ བྱེའི་འབྲི་སྒྲུག་ཤེས་ཡོན་གྱི་ངེས་ཚིག་ གཞི་གནས་ཀྱི་གོ་རིམ། དེ་ལས་ དབྱེ་ཞིབ་འབདཝ་ཐངས་ཚུ་གི་སྐོར་ལས་ བཤད་དེ་ཡོད། འདིའི་ཤུལ་ལས་ ལྷབ་སྦྱང་གྲུབ་འབྲས་ དབྱེ་ཞིབ་འབདན་ནི་ཨིན་མི་ཚུ་ རྟ་གཞུངས་དང་འབྲེལ་མཐུད་བཟོ་ནིའི་དོན་ལུ་ ཁ་གསལ་འབདཝ་གོང་དེ་ཡོད།

༣.༡.༡ བྱེའི་འབྲི་སྒྲུག་ཤེས་ཡོན་གལ་ཆེ་བའི་སྐོར་ལས།

རྒྱལ་འཛིན་ཤེས་རིག་ཚོགས་སྤེའི་ རྩོལ་གཞི་རྟ་གཞུངས་བཀོད་རིམ། བློ་གསར་ལས་ ༡༦ པ། ༢༠༡৮ ཅན་མ་ནང་ལུ་ བྱེ་ནི་གལ་ཆེ་བའི་ འགྲེལ་བཤད་ནང་གསལ།

བྱེ་ནི་འདི་གིས་ རིག་པ་གསར་གཏོད་དང་ ཐོ་བཀོད་གསར་འཛོལ་འབད་ནི་ཚུ་ལས་སྒྲུབ་སྤེ་ འབད་དགོཔ་མ་ཚད་ ཨའོ་བསམ་གཏན་ཐངས་དང་ སྒྲུབ་ཐངས་ཀྱི་རེ་འདོད། རང་གིས་འབྲི་མི་ཚུ་ སྤུས་དག་དང་ཁྱངས་ཐུབ་འབད་བྱེ་དགོ། བྱེ་ནི་བྱ་རིམ་འདི་གིས་ འབྲི་མི་ལུ་ རིག་པ་འཛོལ་ཞིབ་འབད་ནིའི་ཐམ་ལུགས་ལུ། གནས་ཚུགས་པ་ཨིན། དེ་ལས་གཞན་ཡང་ བྱེ་ནི་རིག་རིག་ཚུ་གི་ འབྱུང་ཁུངས་དོན་ཅིག་ཨིན། མི་རང་སོའི་བསམ་དོན་བཤད་ནི། དགའ་སྤྲོ། སྐྱོ་སྤྲོ། འཇིགས་སྤྲོ། ལ་སོགས་པའི་ སེམས་ཀྱི་ཚོར་སྤྲོ་ མ་འདྲཔ་ཚུ། ཕྱིར་བཤད་པའི་ཐབས་ལམ་ དྲག་ཤོས་ཅིག་ཨིན། མི་ལ་ལུ་ཅིག་གིས་ རང་གི་སེམས་ཀྱི་ངལ་བ་སངས་པའི་ཕྱིར་ དང་ གཞན་ཡར་ལོགས་མ་གི་ སེམས་བཀག་ནི་ཉེད་དུ་ཡང་ བྱེ་ནི་རིག་རྩལ་འདི་ ལག་ལེན་འཐབ་ཨིན། དེ་མ་ཚད་ དེང་སང་

ཡར་རྒྱས་གོང་འཕེལ་གྱི་འགྱུར་བ་དང་འཁྲིལ་བའི་ ཡིག་འཕྲིན་དང་ གློག་འཕྲིན་ གསལ་བསྒྲགས་དང་ ཚོང་བསྒྲགས་ཀྱི་ བརྡ་དོན་སྤྱོད་ལེན་ཚུ་ཡང་ མང་ཤོས་ར་ གློག་རིག་གི་ཐོག་ལས་ བརྡ་སྤྱོད་འབད་བའི་དུས་ལུ་ ལྷོད་དེ་ཡོད་མི་ དེ་ཚུ་ཡང་ བྲི་ནིའི་རིག་རྩལ་ལུ་བརྟེན་དགོ། སློབ་དཔོན་ཅཱ་ཎཀྱ་གོ་མིས། གང་ཕྱིར་མཁས་པའི་ལས་གསུམ་ལས། །འཆད་རྩོད་ངག་ལ་མ་ངེས་པ། །སྲིད་ཕྱིར་མི་བསླུ་རྩོམ་པ་མཆོག།། ཟེར་གསུངས་ཏེ་ཡོད་མི་འདི་གིས། མཁས་པའི་བྱ་བ་གསུམ་གྱི་གཙོ་བོ་ བྲི་ནིའི་རིག་རྩལ་གྱི་ ཤེས་ཡོན་འཐོབ་ནིའི་དོན་ལུ།

རྩ་གཞུང་བཀོད་རིམ་ནང་ལུ་ བྲི་ནི་འདི་ མི་ཚེ་ནང་ལག་ལེན་འཐབ་ནི་ལུ་ དགོས་མཁོ་སྣ་ཚོགས་ཡོདཔ་འབད་བཀོད་དེ་འདུག། བྲི་ནི་འདི་ རང་དོན་གྱི་བརྡ་དོན་སྤྱོད་ལེན་འབད་ནིའི་དོན་ལུ་ དུས་དེབ་དང་ཉིན་དེབ་ཀྱིས་གཙོས་པའི་ ཚོང་འབྲེལ་ལམ་ལུགས་དང་མཐུན་པའི་བཟོ་སོར་ཚུ་ བྲི་ནིའི་རིག་རྩལ་དང་ བློ་རྩལ་གྱི་ཐོག་ལས་ རྩོམ་དང་སྙུང་ཚུའི་དགོས་དོན་ཚུ་ འགྲུབ་ནིའི་དོན་ལུ་ཨིན།

ལྷག་ནི་བཟུམ་སྦེ་ བྲི་ནི་འདི་ཡང་ དུས་རབས་ ༢༡ པའི་ གཞི་འགྲམ་རིག་རྩལ་ཅིག་འབད་ཆ་བཞགཔ་ཨིན། ག་ཅི་འབད་ཟེར་བ་ཅིན་ བྲི་ནིའི་རིག་རྩལ་འདི་ མ་འོངས་ལྷབ་སྦྱང་དང་ མི་ངོམ་རང་རང་སོ་སོ་གིས་དཔལ་འབྱོར། སྲིད་དང་མི་སྡེའི་ནང་ བཅའ་མར་ཐེབ་བྱུམ་འབད་ གཏོགས་ཚུགས་པའི་རིག་རྩལ་ གལ་ཅན་ཅིག་ཨིན།

༣.༢ རྫོང་ཁའི་ བྲི་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་གྱི་ ངེས་ཚིག།

རྒྱལ་ཡོངས་ཤེས་རིག་དབྱེ་ཞིབ་ཀྱི་ དམིགས་དོན་འདི། རྩ་གཞུང་གི་ནང་དོན་ལས་ལྷག་སྟེ་ སློབ་ཕྲུག་ཚུ་ ཕན་གྲོགས་ཅན་གྱི་མི་སེར་དང་། མི་སྡེ་ནང་ འབྲེལ་མཐུན་དང་ གྲལ་གཏོགས་ཚུ་ མཐར་འཁྱོལ་ཅན་སྦེ་ འབད་ཚུགས་པའི་མི་ཁུངས་ཅིག་ལུ་འགྱུར་ནིའི་དོན་ལུ་ སློབ་ཕྲུག་ཚུ་གིས་ ཁོང་རའི་ཡོན་ཏན་དང་ རིག་རྩལ་ཚུ་ ལག་ལེན་འཐབ་ནིའི་ལྕོགས་གྲུབ་ དཔྱད་ཞིབ་འབད་ནི་འདི་ཨིན། དེ་འབདཝ་ལས་ དབྱེ་ཞིབ་འདི་གི་ འབྲི་ལྷག་ཤེས་ཡོན་གྱི་ཐབས་ལམ་འདི་ རྒྱལ་སྤྱིའི་དབྱེ་ཞིབ་ལག་ལེན་དྲག་ཤོས་ སློབ་ཕྲུག་གི་དབྱེ་ཞིབ་ལས་རིམ་ (OECD, 2017) གྱི་རྗེས་སུ་འབྲངས་ཏེ་ དངལེན་འབད་ནི་ཨིན། འབྲི་ལྷག་ཤེས་ཡོན་གྱི་དགོངས་དོན་འདི། ལྷབ་སྦྱང་རེ་རེའི་གཞི་གནས་ནང་ ཡོད་མི་ ཤེས་ཡོན་དང་། གོ་རྟོགས་ཀྱི་རིག་རྩལ་ཚུ་ལས་བརྒྱལ་ཏེ་འགྲོཝ་ཨིན། འདི་ནང་ ཤེས་ཡོན་དང་རིག་རྩལ་དེ་ཚུ་ འཐོབ་ནི་དང་ལག་ལེན་འཐབ་ནིའི་ ལྕོགས་གྲུབ་ཚུ་ཚུདཔ་ཨིན།

བྲི་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་གྱི་ངེས་ཚིག་འདི་ འོག་ལུ་བཀོད་དོ་བཟུམ་ཨིན།

བྲི་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་ཟེར་མི་འདི་ རང་དང་མི་སྡེའི་ཉེར་མཁོ་ཚུ་གི་ དོན་འགྲུབ་ནི་དང་། མི་སྡེ་ནང་ལུ་ཕན་གྲོགས་ཅན་གྱི་འཐུས་མི་ཅིག་འབད་ནིའི་དོན་ལུ་ མི་ངོམ་རང་རང་སོ་སོ་གིས་ གོ་དོན་གྱི་ཐོག་ལས་ ཡིག་བྲིསམ་བཟོ་ནིའི་ལྕོགས་གྲུབ་འདི་ལུ་གོ་ནི་ཨིན།

བྲི་ནིའི་འབྲི་ལྷག་ཤེས་ཡོན་

རྒྱ་ཆེ་བའི་ཁྱབ་ཚད་ བརྡ་སྟོན་འབད་ནིའི་དོན་ལུ་ ‘བྲི་ནི’ ཟེར་མི་ མིང་ཚིག་ལས་ ‘བྲི་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན’ ཟེར་མི་ མིང་ཚིག་འདི་ གདམ་ཁ་རྐྱབ་ཡོདཔ་ཨིན། བྲི་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་འདི་ མིང་ཚིག་བཟོ་ནི་ རྐྱངམ་གཅིག་གིས་མ་དོ་བར་ དེ་ལས་བརྒལ་ཏེ་འགྲོཝ་ཨིན། དེའི་གྲངས་སུ་ མིང་ཚིག་བྲི་ནིའི་ལྕོགས་གྲུབ་ཀྱིས་མ་དོ་བར་ འདི་ནང་ལུ་ ཐབས་ཤེས་སྟོན་ནི་དང་ གོ་རིམ་བསྒྲིག་ནི།

མིང་ཚིག་ལག་ལེན་འཐབ་ནི། ཁ་སྐད་ཀྱི་གཞི་བཀོད་ལག་ལེན་འཐབ་ནི། དེ་ལས་ ཡིག་ཟིས་མ་གི་ཁྱད་རྣམ་ལ་སོགས་པའི་ རིག་རྩལ་ཚུ་ཡང་ཚུད་པ་ཞིན། དེ་བཟུམ་མའི་ མིང་ཚིག་གདམ་ཁ་རྐྱབ་དགོ་པའི་ རྒྱུ་མཚན་གཞན་མི་འདྲི་ཡང་ ཟི་ནི་འདི་ གནས་སྟངས་ཅིག་ནང་ དང་ དགོས་དོན་ཅིག་གི་དོན་ལུ་ཟིཕ་ཞིན། ཟེར་བའི་ བརྡ་སྟོན་འབདཝ་ནིའི་ དོན་ལུ་ཞིན།

"མི་ངོམ་རང་རས་སོ་གིས་ གོ་དོན་གྱི་ཐོག་ལས་ ཡིག་ཟིས་མ་བཟོ་ནིའི་ ལྟོགས་གྲུབ་འདི་ལུ་གོ་ནི་ཞིན"

ཟི་ནིའི་འབྲི་ལྷག་ཤེས་ཡོན་ཟེར་མི་འདི་ སློབ་ཁྲག་ཚུ་གིས་ དམིགས་གཏད་བསྒྲིད་པའི་ཡུལ་ལུ་ མིང་ཚིག་ཚུ་ལག་ལེན་འཐབ་ཐོག་ལས་ ཁོང་རའི་ཐབས་ཤེས་དང་ བརྡ་དོན་གྱི་གོ་དོན་གསར་པ་བཟོ་སྟེ་ བཤད་ཚུགས་པའི་ལྟོགས་གྲུབ་ལུ་གོ་ནི་ཞིན། མིང་ཚིག་བཟོ་ནི་ ཟེར་ལག་ལེན་འཐབ་སྟེ་ཡོད་མི་འདི་ ཐབས་ཤེས་ཚུ་རྩོམ་སྒྲིགས་ཁོང་ར་ལས་རང་ འཐོན་ཞིན་པའི་བརྡ་སྟོན་འབདཝ་ནིའི་དོན་ལུ་ཞིན།

"རང་དང་མི་སྟེའི་དགོས་མཁོ་ཚུ་ འགྲུབ་ནི"

ཡིག་ཟིས་མ་ཚུ་གནས་སྟངས་ཅིག་གི་ཐོག་ལུ་ དམིགས་བསལ་གྱི་དགོས་དོན་འགྲུབ་ནིའི་དོན་ལུ་ གསར་རྩོམ་འབདཝ་ཞིན། ཡིག་ཟིས་མ་གི་ཅ་རའབད་རྟུང་ གནས་སྟངས་གཞན་དང་འབྲེལ་བ་མེད་པར་ ཟི་ནི་མེད། དེ་འབདཝ་ལས་ ཟི་ནིའི་འབྲི་ལྷག་ཤེས་ཡོན་ནང་ མི་ཚེ་ངོམའི་གནས་སྟངས་ཚུ་ བཤད་ཐུབས་ཅན་འབད་ སྐབས་ཀྱི་ཡོད་པའི་ གནས་སྟངས་དང་དགོས་དོན་ཚུ་གི་སྐོར་ལས་བཤད་དེ་ཡོད་ མི་ཚུ་ ཚུད་དགོས་ཞིན། ཞིན་རྟུང་རྩོད་ཐུན་འདི་ རྩོམ་སྒྲིགས་གིས་ མཐོང་སྟངས་གྱི་སྒོ་ལས་ ལྷག་དགོས་དང་ གནས་སྟངས་དེའི་ཐོག་ལས་ཀ་ཡོ་དགོ། དཔེར་ན། རང་སོའི་དགོས་དོན་གྱི་དོན་ལས་ ཟི་ལ་ཡོད་མི་ནང་ལུ་ སྡུད་བྱེ་ནི་དང་མི་སྟེའི་དགོས་མཁོའི་དོན་ལུ་ ཞིན་པ་ཅིན་ རྩོམ་སྒྲིག་པའི་འཆར་སྟངཔ། ཡི་གུ། ལ་སོགས་པ་ཚུ་ཚུད་པ་ཞིན།

"མི་སྟེ་ནང་ལུ་ གོགས་རམ་འབད་ཚུགས་པའི་མི་ངོམ་ཅིག་ འབད་ནིའི་དོན་ལུ"

ཟི་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་ གལ་གནད་ཆེའི་ར་ཁྲངས་འདི། མི་ངོམ་རང་སོའི་ མཐོང་སྟངས་ཤུངས་གཅིག་གིས་ མ་དོ་བར་ རྒྱ་ཆེ་བ་ མི་སྟེའི་ མཐོང་སྟངས་གི་ཁ་ཐུག་ལས་ ཀ་གོ་དགོས་འདི་ གཅིག་ལས་གལ་ཆེ། རྩོད་ཐུན་འདི་གི་དམིགས་དོན་འབད་བ་ཅིན་ ཟི་ནིའི་ འབྲི་ལྷག་ཤེས་ཡོན་འདི་ མི་ཁྲངས་རེ་རེ་བཞིན་དུ་ལུ་ དགོས་ཐག་ཆེཔ་ཅིག་ཞིན་པའི་བརྡ་མཚོན་དང་། གཞན་ཡང་ མི་སྟེའི་ནང་ དོན་སྒིན་ཅན་འབད་ བཅའ་མར་གཏོར་གས་ནི་དང་ མི་སྟེའི་ཡར་རྒྱས་གོང་འཕེལ་ལུ་ ཨན་གོགས་འབད་ཚུགས་པའི་ བརྡ་སྟོན་ལུ་ཞིན་པས།

༣.༣ ཟི་ནིའི་འབྲི་ལྷག་ཤེས་ཡོན་གཞི་གནས་ཀྱི་རིམ་སྒྲིག།

ཟི་ནིའི་འབྲི་ལྷག་ཤེས་ཡོན་གཞི་གནས་འདི་ནང་ སློབ་ཁྲག་ཚུ་གིས་ ལན་བཟོ་སྟེ་ཟི་དགོ་པའི་ལས་སྣ་ཚུ་ཚུད་པ་ཞིན། དེ་ཡང་ གནས་སྟངས། ཡིག་ཟིས་མ་དབྱེ་བ། ཟི་ནིའི་ནང་གསེས་ཀྱི་ རིག་རྩལ་ཀྱི་ཐོག་ལས་བཤད་པ་ཞིན།

༣.༣.༧ གནས་སྟངས།

བྱེ་ནིའི་ འབྲི་སྐག་ཤེས་ཡོན་གྱི་གཞི་གནས་ནང་ལུ་ བྱེ་བའི་སྐབས་ལུ་ དགོས་དོན་དང་ གནས་སྟངས་མ་འདྲཝ་ཚུ་ ཚུད་དེ་ཡོདཔ་ཨིན། ཡིག་བྱེསམ་ནང་ བཙོ་ཡོད་པའི་གནས་སྟངས་དང་ སྐག་པའི་སྐབས་ཀྱི་གནས་སྟངས་གཉིས་ ཅོག་འཐདཔ་འོངས་སྐྱིད་ནི་ཨིནམ་ལས་ སྐག་ནིའི་འབྲི་སྐག་ཤེས་ཡོན་གྱི་གཞི་གནས་ནང་ལུ་ དེས་ཆོག་འགེལ་ཡོད་པའི་གནས་སྟངས་འདི་ བྱེ་ནིའི་གཞི་གནས་ནང་ལུ་ཡང་འོས་འབབ་ཡོད། དབྱེ་ཞཱ་རེ་རེའི་ནང་ འོས་འབབ་ལྷན་པའི་ དཔེ་མཚོན་ཡོདཔ་འབད་ དེས་བརྟན་བཟོ་ནི་ཨིན། བྱེ་ནིའི་ འབྲི་སྐག་ཤེས་ཡོན་གཞི་གནས་ཀྱི་ གནས་སྟངས་མ་འདྲཝ་ཚུ་གི་བཤད་པ་ཚུ་ འོག་ལུ་བཀོད་དེ་ཡོད།

རང་རྐྱང་གི་གནས་སྟངས་ནང་ལུ་ རང་སོའི་དམིགས་གཏད་ཚུ་འོངམ་ཨིན། ཡིག་བྱེསམ་ཚུ་གི་དམིགས་གཏད་བསྐྱེད་པའི་ འབྲེལ་ཡུལ་ངོམ་ར་ རྩོམ་སྐྲིགས་ཁོ་ར་ཡང་ མོ་ར་ལུ་འོངནི་དང། དེའི་དོན་ཚན་ཚུ་ཡང་རང་ཉིད་འཛོད་བསྟེན། རང་ཉིད་སྐྱེལ་འདྲེན། ཡང་ འགྱུལ་སྐྱོད་ཚུ་ཚུདཔ་ཨིན། རང་ཉིད་གནས་སྟངས་དང་དོན་མཐུན་པའི་ བྱེ་ནིའི་ལས་སྣ་ཚུ་ནང་ རང་ཉིད་གཅོ་བོར་བཏོན་པའི་བཤད་པ་ དང་ སྤྲོ་བ་ཡང་ བསམ་ཞིབ། དཔེར་ན། སྐུང་དང་ཉིན་དེབ་ལ་སོགས་པ་བྱེ་ནི་ཚུ་ཚུདཔ་ཨིན།

མཐའ་འཁོར་གྱི་གནས་སྟངས་ནང་ལུ་འབད་བ་ཅིན་ མི་གཞན་དང་མཉམ་གཅིག་ བཅའ་མར་གཏོགས་ནི་ལུ་ མཁོ་འདོད་བསྐྱེད་ནི། ཡང་ ཆུལ་ཁབ་དང་རང་གི་ཉེ་འདབས་ལུ་ཡོད་མི་ མཐའ་འཁོར་གྱི་ འབྱུང་བ་ཚུ་དང་གཅིག་ཁར་ ཕན་ཚུན་འབྲེལ་བ་འབད་ནི་ལུ་ གཅོ་ཐོག་བཏོན་ཡོན། གནས་སྟངས་འདི་གི་གྲངས་སུ་ རང་གི་བསམ་བློ་དང་བྱ་བ་དེ་ཚུ་ རང་གི་ཉེ་འདབས་ལུ་ཡོད་མི་ གང་ཟག་ཡང་ དངོས་པོའི་རིགས་ཚུ་དང་མཉམ་གཅིག་ ཕན་ཚུན་འབྲེལ་བ་ཡོད་མེད་ལུ་ རག་ལས་པའི་གནད་དོན་ཚུ་ གཅོ་ཐོག་ཉིམ་དང། སྤྲོབ་གྲྭ། མི་སྡེ། ཡང་ རང་གི་ལུ་གི་ས་གོ་ནང་ལུ་ ཉེན་བསྐྱབ་གྱི་གནས་སྟངས་དང་ ལས་སྣ་ཚུ་ཚུདཔ་ཨིན། ས་གནས་ཀྱི་གནས་སྟངས་ ཁ་གསལ་སྟོན་མི་ བྱེ་ནིའི་ཡིག་བྱེསམ་འདི། ཆར་གས་ལས་ཐོབ་པའི་གཏངཡིག་དང། སྤྲོབ་གྲྭའི་དུས་ཚོད་ རེའུ་མིག། ཡང་ རང་གི་ཆུལ་ཁབ་དང་གཡུས་ཀྱི་བཤད་པ། ལ་སོགས་པ་ཚུ་ཚུདཔ་ཨིན།

ཆུལ་སྤྱིའི་གནས་སྟངས་ནང་ལུ་ ཨིན་པ་ཅིན་ མི་སྡེ་གཅིག་ ཡང་ ཆུལ་ཁབ་གཅིག་ ཡང་ འདི་བ་ལྷག་པའི་ ཆུ་ཆེ་དྲགས་དང་ འབྲེལ་ཡོད་ཆུལ་སྤྱིའི་ནང་ལུ་ ཕན་གནོད་ཡོད་པའི་ ཕྱི་འབྲེལ་གྱི་གནས་སྟངས་ཚུ་ལུ་ གཅོ་ཐོག་བཏོན་ཡོན། ཆུལ་སྤྱིའི་གནས་སྟངས་དང་ མཐུན་སྒྲིག་ཡོད་པའི་ ཡིག་བྱེསམ་ནང་ ཆུ་ཆེའི་མི་སྡེའི་ གནད་དོན་ཚུ་དང་འབྲེལ་བའི་གནད་དོན་ དཔེར་ན། མི་དམངས་སྤྱིད་བྱུས་དང། སྐྱེལ་འདྲེན་ལམ་ལུགས། དེ་ལས་ གསལ་བསྒྲགས་དང་ ཁྲབ་བསྒྲགས། ལ་སོགས་པ་ཚུ་ཚུདཔ་ཨིན། ཆུ་ཆེའི་ཆུལ་སྤྱིའི་ གནས་སྟངས་ ཁ་གསལ་སྟོན་མི་ བྱེ་ནིའི་ཡིག་བྱེསམ་ནང་ གཞུང་འབྲེལ་ཡི་གུ་ཚུ་དང་ ཡང་ ཆུལ་སྤྱིའི་གནད་དོན། དཔེར་ན། མཐའ་འཁོར་གནས་སྟངས་ཚུ་གི་ཐོག་ལུ་ བྱེས་ཡོད་པའི་འབྱི་ཅུ་ཚུ་ཚུདཔ་ཨིན།

༣.༣.༨ ཡིག་བྱེསམ་གྱི་དབྱེ་བ།

དབྱེ་ཞིབ་འདི་ནང་ སྤྲོབ་ཐྲུག་ཚུ་ ལས་སྣེ་ཅིག་གི་ཐོག་ལུ་ ལན་བྱེ་ནིའི་དྲི་བ་ཚུ་བཀོད་ནི་ཨིན། སྣེ་ཚན་རེ་རེལུ་ ལས་སྣ་ ༤ ཡང་ ༣ འོང། དེ་ལས་ ལས་སྣ་རེ་རེ་གིས་སྤྲོབ་ཐྲུག་ཚུ་ རྩོད་ཁའི་རྩ་བ་ཚུ་ཁོད་ཡོད་པའི་ ཡིག་བྱེསམ་དབྱེ་བ་ལྟ་གི་གྲལ་ལས་ གཅིག་

བཟོ་དགོ་པའི་ལས་སྣ་འོང། སྡེ་ཚན་རེ་ནང་གི་ ལས་སྣའི་ཀུངས་ཁ་འདི་ ལས་སྣ་རེ་ནང་དུས་ཡུན་འགོར་ཉིད་དང་ ལུ་ཁག་པའི་གནས་རིམ་ལུ་རག་ལས། དེ་ལས སྡེ་ཚན་གཅིག་ནང་ ལུ་ཁག་པའི་གནས་རིམ་དང་ དུས་ཡུན་ཚུ་ཅོག་འཐདཔ་འོང། ལས་སྣ་ཚུ་གི་ལུ་ཁག་པའི་གནས་རིམ་དང་ དུས་ཚོད་འདི་ མ་བཏབ་གནད་སྤུད་ལུ་ གཞི་བཞག་སྟེ་ཐག་གཅད་ནི་ཨིན།

འཆར་སྤྱང་ཡིག་བྱེསམ་འདི་ཚུ་གིས་ འཁྲབ་རྩེད་སྤུན་ཞུ་དང་བཅོ་བཀོད། འབྲུང་རིམ་དང་བརྗེད་དོན། དེ་བཀོད་དང་འབྲེལ་བ་ཡོད་མི་ཚུ་ ནམ? ཡང་ན་ གཅིག? ལ་སོགས་པ་ཚུ་ གོ་རིམ་བསྒྲིགས་ཏེ་འོངམ་ཨིན། འཆར་སྤྱང་ཡིག་བྱེསམ་གྱི་དཔེ་ཚུ་ སྤྱང་སྦྱང་ཀྱི། འཁྲབ་སྟོན་དང་ པར་སྤྱང་ལ་སོགས་པ་ཚུ་ཚུད་པ་ཨིན།

སྐན་རྩོམ་བྱེ་མའི་དོན་ལུ་ རིག་རྩལ་ཁ་སྐོང་དགོ་དོ་ཡོད་པ་ལས་ སློབ་ཕྲུག་ཚུ་དབྱེ་ཞིབ་འདི་ནང་ སྐན་རྩོམ་ཚུ་བྱེ་མི་བཙུག།

འགྲེལ་བཤད་ཡིག་བྱེསམ་འདི་ གང་ཟག་དང་དངོས་པོ། དེ་ལས་ བློ་སྤྱངདགོངས་དོན་ ཡང་ མཉེ་ལུགས་ཚུ་གི་སྐོར་ལས་ བཤད་པ་རྒྱབ་མི་ཅིག་ཨིན། ཡིག་བྱེསམ་དེ་ཚུའི་ནང་ གཅི? དང་ གང་དེ་སྟེ? ཟེར་བའི་ དྲི་བ་ཚུ་གི་སྐོར་ལས་ ཁ་གསལ་བཤད་པ་ཨིན། འགྲེལ་བཤད་ནང་ལུ་ འཕྲལ་འཕྲལ་སྐབས་ རྒྱས་བཤད་ཟེར་སྟེལ་ཡོད་མིའི་ བྱེ་ནི་གི་རིགས་འདི་ཡང་ ཚུད་པ་ཨིན། འགྲེལ་བཤད་ཡིག་བྱེསམ་གི་དམྱེ། མི་དང་། ས་གནས། སྡེ་ཤིང་། དཀའ་དལ། ཚོར་བ། ཡང་ གནད་དོན་ཅིག་གི་སྐོར་ལས་ འགྲེལ་བཤད་རྒྱབ་ནི་དང་། ཡང་ པར་རིས་ཚུ་ལུ་ ཁ་ཡིག་བཏགས་ནི་ཚུ་ཨིན།

རྒྱུད་སྐྱལ་གྱི་ཡིག་བྱེསམ་འདི་ ལྷག་མི་ལུ་ རྒྱུད་སྐྱལ་འབད་ནི་ལས་མ་འཚར་དང་ བསམ་ཚུལ་གྱི་འཚར་སྤྱང་ཚུ་བཤད་པ་ཨིན། ཡིག་བྱེསམ་དེ་ཚུ་གིས་ གཅི? དང་ གང་ཅི་འབད? ཟེར་བའི་ དྲི་བ་ཚུ་གི་སྐོར་ལས་ ཁ་གསལ་བཤད་པ་ཨིན། རྒྱུད་སྐྱལ་ཡིག་བྱེསམ་ནང་ལུ་ ཚུད་མི་ཚུ་ དམྱེ་འབད་བ་ཅིན། ལྷན་དག་པ་ལུ་ བསྐྱལ་བའི་ཡི་གུ་དང། ཀི་དེབ་བསྐྱར་ཞིབ། ཆོང་བསྒྲགས་དང་གསལ་བསྒྲགས། ལུ་གཡོག་ལྷ་ཡིག། མི་དམངས་སྤིད་བྱུས་ ལ་ལུ་ཅིག་གི་ཐོག་ལུ་ ཞེ་ཡན་ ཡང་ གནོད་པའི་སྐོར་ལས་ ཞོས་སྤྱད་འབད་དེ་ གཞན་ལུ་སྐྱལ་མ་འབད་མི་འདི་ཨིན།

སློབ་སྦྱོན་གྱི་ཡིག་བྱེསམ་འདི་ གཅི་སྟེ? དང་ ནམ? ཟེར་བའི་དྲི་བ་ཚུ་གི་སྐོར་ལས་ ཁ་གསལ་བཀོད་དེ་ དམིགས་བསལ་གྱི་ལས་སྣ་མཇུག་བསྡུ་ནི་དོན་ལུ་ གཅི་འབད་དགོས་ཨིན་ན་ དེའི་སྐོར་ལས་ བཤད་པ་རྒྱབ་ཨིན། སློབ་སྦྱོན་གྱི་ཡིག་བྱེསམ་ནང་ལུ་ ཚུད་མི་ཚུ་ དམྱེ་འབད་བ་ཅིན། ས་གནས་ འཚོལ་འཐོབ་ནི་དོན་ལུ་ བཀོད་རྒྱ་ཁྱིན་ནི་དང། དངོས་པོའི་རིགས་ཅིག་ བཟོ་ནི་དོན་ལུ་ ཅ་ཆས་དང་ དེའི་ཐུ་རིམ་ཚུ་ ཐོ་བཀོད་འབད་ནི། སྒོ་བྱང་འཚབས་ཆེན་གྱི་སྐབས་ལུ་ གཅི་འབད་དགོས་ཨིན་ན་ དེའི་སྐོར་ལས་ བཤད་པ་རྒྱབ་ནི་ཚུ་ཨིན།

བརྟེ་སོར་ཡིག་བྱེསམ་གི་དམིགས་ཡུལ་འདི་ སྡེ་ཚན་གཉིས་ ཡང་ དེ་ལས་མང་བའི་ སྡེ་ཚན་ཚུ་གི་བར་ན་ བརྡ་དོན་བརྟེ་སོར་འབད་དེ་ དམིགས་བསལ་གྱི་ དམིགས་དོན་བསྒྲུབ་ནི། དབེར་ན། གཅིག་འབད་ནིའི་དོན་ལུ་ ཐ་སྒྲིག་འབད་ནི། ལ་སོགས་པའི་ཡིག་བྱེསམ་ཚུ་ཨིན། བརྟེ་སོར་ཡིག་བྱེསམ་འདི་ ཆར་གས་ལས་བརྡ་འཕྲིན། ཡང་ ཅ་ལ་སྐྱེལ་སྤྲོད་དང་འབྲེལ་བ་ཡོད་པའི་ཡིག་འགྱུལ། ལ་སོགས་པ་ཚུ་གི་ དབེ་མཚོན་མ་ཨིན།

༣.༣.༣ སྤི་ནི་ནང་གསེས་ཀྱི་རིགས་རྣམ།

སྤི་ནི་འབྲི་ལྷག་ཤེས་ཡོན་ནང་ འོག་ལུ་ཁ་གསལ་འབད་བཀོད་དེ་ཡོད་པའི་ ནང་གསེས་ཀྱི་རིགས་རྣམ་ཚུ་ཚུདཔ་ཨིན། འདི་ཚུ་དབྱེ་ཞིབ་ཀྱི་དབྱེ་ཚད་འབད་ ལག་ལེན་འཐབ་ནི།

ཐིག་ཁམ་ ༡༡ (Table 11): *སྤི་ནི་འབྲི་ལྷག་ཤེས་ཡོན་ནང་གི་ ནང་གསེས་ཀྱི་རིགས་རྣམ།*

དབྱེ་ཞན།	ནང་གསེས་རིགས་རྣམ།	འགྲེལ་བཤད།
སྤི་ནི་རིགས་རྣམ་དངས།	ཐབས་ཤེས་བརྟེན་ནི།	སྤྱིར་བཏང་ སྤི་ནི་ལས་སྣ་འདི་གསར་བཟོ་དང་ གདམ་འཐུ། ཐབས་རིག་བརྟེན་ནི་རིགས་རྣམ་ཚུ་ཚུད་པའི་ལས་སྣ་ཅིག་ཨིན། ཐབས་ཤེས་མང་ཉུང་དང་ སྤུས་ཚད། དེ་ཚུ་གི་ འོས་འབབ་ཡོད་ཏིང་ཚུ་ རིགས་རྣམ་འདི་གི་ཡན་ལག་ཅིག་ཨིན། ཐབས་ཤེས་ཀྱི་རང་བཞིན་འདི་ ཡིག་ཐྲིསམ་གི་རྣམ་པ་ གཅིག་ལས་གཅིག་ལུ་ མ་འདྲཔ་འབད་འོངམ་ཨིན། དཔེར་ན། ལོ་རྒྱུས་ཀྱི་སྤྱང་ནང་ལུ་ སྤུང་རྩེད་པའི་སྤྱོད་རྣམ་དང་སྤུང་གི་འབྱུང་རིམ་ཚུ་ གལ་ཆེ་ དགོས་ཨིནམ་དང། རྒྱུ་སྐུལ་གྱི་འཐེ་ལུགས་ནང་འབད་བ་ཅིན་རྒྱུ་མཚན་དང། འཐེལ་བ། རྒྱུ་སྐུལ་གྱི་ ཆོག་གཞི་བཀོད་ཐངས་འདི་ རྩོད་དོན་ལུ་ཁག་ཆེད་དགོས་ཨིན། དེ་ཚུ་ གལ་གནད་ཅན་གྱི་ཡོན་རིས་མེད་པའི་ སྤྱི་ལས་སྤི་ནིའི་ ལྟེགས་སྒྲུབ་ཅིག་ཨིན། དེ་བརྒྱམ་འབད་ འགྲེལ་བཤད་འཐེ་ལུགས་ཀྱི་རྣམ་པ་ནང་འབད་བ་ཅིན་ ལྷག་མི་ཚུ་གི་དོན་ལུ་ འགྲེལ་བཤད་ཡོངས་རྫོགས་འབད་རྒྱུ་ནི་དང་ གནད་སྤྲུད་ཁ་གསལ་འབད་ཚུད་དགོས། དེ་ལས་ བཅུད་བསྡུས་བཏོན་ནི་དང་ པར་རིས་ཀྱིས་མཇོས་རྒྱན་བཟོ་སྟེ་ བཀོད་ནི་འདི་ ཁག་ཆེད་དགོས་ཨིན།
སྤི་ནི་རིགས་རྣམ་གཉིས་པ།	ཡིག་ཐྲིསམ་གི་གཞི་བཀོད་ཚད་འཛིན་དང་ཞོ་རིམ་བཟོ་ནི།	ཡིག་ཐྲིསམ་མ་འདྲཔ་ཚུ་ཡ། གཞི་བཀོད་མ་འདྲཔ་སོ་སོ་འོངམ་ཨིན། རྩོམ་སྒྲིག་མཁས་མཆོག་ཚུ་ཡ། ཡིག་ཐྲིསམ་གཞི་བཀོད་ ཁྲད་རྒམ་ཚུ་གི་ཤེས་ཡོན་དང་ལྡན་པའི་ཁར་ རིམ་སྒྲིག་ཚུ་ཡང་ འོས་འབབ་ཡོད་པ་འབད་གནས་འཐུ་འབད་དེ་ སྤི་ནིའི་ ཤེས་ཡོན་ཡོད་པ་ཨིན། དཔེར་ན། བཞེས་སྒྲི་འབད་ཐངས་ཀྱི་ཟས་སྤྱོར་དཔེ་དེབ་ཅིག་སྤི་བ་ཅིན། རྩོམ་སྒྲིགཔ་གིས་ དང་པ་ར་ ཟས་སྤྱོར་གཅིག་པོ་ར་དགོས་ཨིན་ན་ ཐོ་བཀོད་འབད་ནི་ལས་འགོ་བཙུགས་ཏེ་ བཞེས་སྒྲི་འབད་ཐངས་ཀྱི་ རིམ་པ་ཚུ་ གོ་རིམ་བཞིན་དུ་བཤད་དེ་འོངམ་ཨིན། ལོ་རྒྱུས་ཀྱི་རྣམ་པ་འབད་བྱེ་བ་ཅིན་ རྩོམ་པྱེས་པ་གིས་ ཉེ་མ་གི་ལམ་ལུགས་བཟུམ་ དང་པ་ར་ ངོས་ལས་འགོ་བཙུགས་ཏེ་ རིམ་པ་བཞིན་དུ་ རྣོགས་གཞི་བཟོ་ཞིན་ལས་ མཇུག་ར་ ཞི་ཐབས་ཀྱིས་ འབད་མཇུག་བསྡུཔ་ཨིན། ཁོང་གིས་ གོང་འཁོད་ཚཤས་རེ་རེའི་ནང་ལུ་ ག་ཅི་ར་ཚུད་དགོས་ཨིན་ན་ཚུ་ ཏོ་དོ་ཡོད་པ་ཨིན། དེ་ཡང་ དཔེར་ན། ངོས་སྤྱོད་ནང་ལུ་ སྤུང་རྩེད་པ་ངའི་སྐོར་ལས་ ངོས་སྤྱོད་འབད་ཞིན་ལས་ གནས་དུས། ཚུ་བཟོ་བཀོད་འབད་ཐུབ་ཨིན།

ཁྲི་ནིའི་རིག་རྩལ་གསུམ་པ།	འབྲེལ་མཐུན་བདེ་ཞིབ་འབད་ནི།	རྩོམ་སྒྲིག་པ་ལེགས་ཤོམ་ཚུ་གིས་ ལྷག་མི་ཚུ་གི་དོན་ལུ་ ཡིག་བྲིསམ་ཚུ་ ཐབས་ཤེས་མ་འདྲཝ་ཚུ་གི་བར་ན་ལུ་ འབྲེལ་བ་ཚུ་ལེགས་ཤོམ་འབད་བཟོ་སྟེ་ ཧ་གོ་དགོ་བདེ་ཏོག་ཏོ་བཟོ་སྟེ་འོངམ་ཨིན། འབྲེལ་མཐུན་འདི་ ལྷག་མི་ཚུ་གི་སྤྱིར་བཏང་ཤེས་ཡོན་དང་འབྲེལ་བའི་ རྒྱུ་མཚན་ལྡན་པའི་ཐབས་ཤེས་ཡང་འཕེལ་དང་། ཚིག་སྦྱོར་གྱི་ཁྱད་རྣམ། དཔེར་ན། རྒྱབ་རྟེན་ལག་ལེན། དང་ ཚིག་དོན་ཁྱད་རྣམ། དེ་ལས་ འབྲེལ་རྗོད་བརྡ་ཚིག་དང་འབྲེལ་ཚིག་ལག་ལེན་འཐབ་སྟེ་ བསྒྲུབ་ཨིན། ད་རུང་རྩོམ་སྒྲིག་པ་ལེགས་ཤོམ་ཚུ་གིས་ དོན་ཚན་གཙོ་བོ་གི་ཐོག་ལུ་ ཐབས་ཤེས་ཚུ་ དབྱེ་ཁག་སོ་སོ་བཟོ་སྟེ་ དོན་མཚམས་བཅད་དེ་ སྟོན་དོ་ཡོདཔ་དང་། གཞན་ཡང་ པར་རིས་དང་བཟོ་བཀོད། དོན་ཚན་གྱི་མགུ་ཡིག་ཚུ་བཀོད་དེ་ ཐབས་ཤེས་ཚུ་གི་བར་ན་ འབྲེལ་བ་ཡོད་པའི་བརྡ་མཚོན་སྟོནམ་ཨིན།
ཁྲི་ནིའི་རིག་རྩལ་བཞི་པ།	མིང་ཚིག་དང་ཡིག་སྡེབ།	ཁྲི་ནིའི་ནང་ལུ་ མིང་ཚིག་ཤེསཔ་རྐྱངམ་གཅིག་གིས་མ་ཚདཔ་ར་ དམིགས་བསལ་གྱི་ གནས་སྟངས་དང་འཁྲིལ་ཏེ་ མིང་ཚིག་ལག་ལེན་འཐབ་སྟེ་ ཁྲི་དགོཔ་ཚུ་ཡང་ཚུདཔ་ཨིན། རྩོམ་སྒྲིག་པ་ལེགས་ཤོམ་ཚུ་གིས་ གོ་དོན་ཚུ་ ཚིག་ཝུང་ལ་དོན་གསལ་གྱི་ཐོག་ལས་བཤད་ནིའི་དོན་ལུ་ མིང་ཚིག་ཚུ་ འོས་འབབ་ཆེ་ཏོག་ཏོ་འབད་ ལག་ལེན་འཐབ་ནི་ཡོདཔ་ཨིན། ཁོང་གིས་ མིང་ཚིག་ཚུ་ དགོས་དོན་དང་ ལྷག་མི། དེ་ལས་ གནས་སྟངས་ཚུ་དང་འཁྲིལ་ཏེ་ གདམ་འཐུ་འབད་དེ་ ཁྲིཔ་ཨིན། རྒྱ་ཆེ་བའི་མིང་ཚིག་མ་འདྲཝ་ཚུ་ འོས་འབབ་དང་འཁྲིལ་ཏེ་ ལག་ལེན་འཐབ་ཚུགས་ནི་འདི་གིས་ རྩོད་དོན་ཚུ་ ཕན་ནུས་དང་ལྡནམ་འབད་བཀོད་ནི་ལུ་ ཕན་གྲོགས་འབདཔ་མ་ཚད། འགྲེལ་བཤད་དང་ ལོ་རྒྱུས་ནང་ལུ་ཡོད་པའི་སྣང་བརྙན་ཚུ་ མི་ཚེའི་གནས་སྟངས་རོམ་དང་ འབྲེལ་ཆགས་ཏོག་ཏོ་བཟོཝ་ཨིན།
ཁྲི་ནིའི་རིག་རྩལ་ལྔ་པ།	ཚིག་སྦྱོར་དང་ཡིག་སྦྱོར་གྱི་ཚད་འཛིན་འབད་ནི།	རྩོམ་སྒྲིག་པ་ཚུ་གིས་ཐེ་ཚོམ་མེད་པར་ ཡིག་སྦྱོར་གྱི་ལམ་ལུགས་འདི་གིས་ རྗོད་ཕྲན། རྗོད་ཚིག་ཆ་ཤས་དང་ རྗོད་ཚིག་ཚུ་འཛིན་སྐྱོང་ག་དེ་སྦེ་ འབདཔ་ཨིན་ན་ ཧ་གོ་དགོཔ་ཨིན། རྩོམ་སྒྲིག་པ་ལེགས་ཤོམ་ཚུ་གིས་ འཛོལ་བ་མེད་པའི་ཡིག་སྦྱོར་ཚུ་གི་ཐོག་ལས་ བཅུད་དོན་ཡོད་པའི་རྗོད་ཚིག་ཚུ་ ཁྲི་ཚུགས་དོ་ཡོདཔ་དང་། ཚིག་སྦྱོར་གྱི་གཞི་བཀོད་ཚུ་ ཚུལ་དང་མཐུནམ་འབད་ ཁྲི་ཚུགསཔ་ཨིན། ཁོང་ཚུ་གིས་ བདེ་ཞིབ་ཐབས་ལམ་སྣ་ཚོགས་ཀྱི་ སྒོ་ལས་འབྲེལ་མཐུད་འབད་ནི་དང་ ཁྲི་ནིའི་ལས་སྣ་ནང་ལུ་ འོས་འབབ་ཡོད་པའི་རྗོད་ཚིག་གི་གཞི་བཀོད་ཚུ་ ལག་ལེན་འཐབ་ཨིན།
ཁྲི་ནིའི་རིག་རྩལ་དྲུག་པ།	ཡིག་བཟོ།	ཡིག་བཟོ་འདི་གིས་ ཐོགས་ཆགས་མེད་པར་ལྷག་ནི་དང་སྤྱིན་ཞུ་ལུ་ གྲོགས་རམ་འབད་དོ་ཡོདཔ་ལས་ དབྱེ་ཞིབ་འདི་ནང་ བཙུགས་ཡོདཔ་ཨིན།

ནང་གསེས་ཀྱི་རིག་རྩལ་ རེ་རེ་བཞིན་གྱི་དབྱེ་ཞིབ་འདི་ ལས་སྣ་དང་ཡིག་བྲིསམ་གྱི་དབྱེ་བ་ལུ་ རག་ལས་པའི་ཚད་གཞི་སྣ་ཚོགས་ལག་ལེན་འཐབ་སྟེ་འབད་ནི་ཨིན། ཚད་གཞི་འདི་ཡང་ འཇལ་ཚད་རིམ་པ་ གཉིས་ཡོད་མི་ (༠, ༡) ཡང་ན་ དབྱེ་ཁག་མ་འདྲཝ་ཚུ་ཡོད་པའི་འཇལ་ཚད་བཟོ་ཐོག་ལས་ ལག་ལེན་འཐབ་ནི་ཨིན། དབྱེ་ཁག་རེ་རེ་ནང་གི་ཚད་གཞི་རེ་རེ་ལུ་ སྐུགས་འཐོབ་ནི་ཨིནམ་མ་ཚད་ ཚད་གཞི་འདི་ དྲི་བ་འབད་ཡང་བརྩི་སྲིད་འོང་།

ཐིག་ཁྲམ་ ༡༢ གིས་ ལས་སྣ་ཆ་ཚང་ཅིག་གི་ ནང་གསེས་ཀྱི་རིག་རྩལ་ཚུ་གི་ རེ་འདོད་བསྐྱེད་པའི་སྐུགས་ཀྱི་དཔྱ་བགོ་ཚུ་གི་སྐོར་ལས་ བཤད་པ་རྐྱབ་ཨིན། སྐུགས་ཀྱི་དཔྱ་བགོའི་དོན་འགྲུབ་ནི་ལུ་ ལས་སྣ་རེ་རེ་བཞིན་དབྱེ་ཞིབ་ཀྱི་ཚད་གཞི་ ག་རའི་ཐོག་ལས་དབྱེ་ཞིབ་མི་འབད། ཨིན་རུང་ འབྲེལ་བ་ལེགས་ཤོམ་འབད་ཡོད་མི་ཚུ་ ཚད་གཞི་འདི་གིས་ དབྱེ་ཞིབ་འབད་ནི་ཨིན།

ཐིག་ཁམ། ༡༢ (Table 12): བྱི་ནི་འབྲི་སྒྲུབ་ཤེས་ཡོན་ཀྱི་དབྱེ་ཞིབ་ནང་ ནང་གསེས་རིག་རྩལ་གྱི་སྤྱིད་ཚད།

ནང་གསེས་རིག་རྩལ།	སྤེ་རིམ་དྲུག་པ།	སྤེ་རིམ་ དགུ་པ།
ཐབས་ཤེས་བརྟེན་ནི།	༡༥-༢༥%	༡༥-༢༥%
ཡིག་སྒེསམ་གི་གཞི་བཀོད་ཚད་འཛིན་དང་ཞོ་རིམ་བཟོ་ནི།	༡༠-༢༠%	༡༠-༢༠%
འཛེལ་མཐུན་བདེ་ཞིབ་འབད་ནི།	༡༥-༢༥%	༡༥-༢༥%
མིང་ཚིག་དང་ཡིག་སྟེབ།	༡༠-༢༠%	༡༠-༢༠%
ཚིག་སྒྲོར་དང་ཡིག་སྒྲོར་གྱི་ཚད་འཛིན་འབད་ནི།	༢༥-༣༠%	༢༥-༣༠%
ཡིག་བཟོ།	༠-༥%	༠-༥%

ནང་གསེས་ཀྱི་རིག་རྩལ་འདི་ནང་ ལྷབ་སྒྲུབ་གྲུབ་འབྲས་ཚུ་གི་གྲས་ལས་ སྐད་ཡིག་གི་ཆ་ཤས་ཡིག་སྒྲོར་འདི་ བཙུགས་ནི་ཞིན་ལས་ སྐུགས་ཀྱི་སྤྱིད་ཚད་མངའ་ཐེས་རང་ ཚིག་སྒྲོར་ཚད་འཛིན་དང་ ཡིག་སྒྲོར་ལུ་ཅིན་ཏེ་ཡོད་པ་ཞིན། ཡིག་བཟོ་འདི་ལུ་ སྤྱིད་ཚད་དམའ་ཐེས་ ཅིན་ཡོད་མི་འདི་ཡང་ སློབ་ཁྲུག་ཚུ་གི་སྟེ་རིམ་འདི་ཚུ་ནང་སྟོངས་པ་དང་ ཡིག་བཟོའི་ རིག་རྩལ་ཚུ་ལེགས་ཤོམ་འབད་ཡར་རྒྱས་འགྱོ་འགྱེལ་འདུ།

༣.୯ གཞི་གནས་དབྱེ་ཞིབ།

འབྲི་སྒྲུབ་ཤེས་ཡོན་ནང་ལུ་ཡོད་དོ་བཟུམ་སྟེ་ བྱི་ནི་འབྲི་སྒྲུབ་ཤེས་ཡོན་གྱི་དབྱེ་ཞིབ་ཀྱི་ལག་ཆས་ ནང་ལུ་ཡང་གནས་སྤྱངས་སྟ་ཚོགས་ དང་འཁྲིལ་ཏེ་ ཡན་ལག་གི་རིག་རྩལ་ ཁག་མ་འདྲཔ་འབད་ཡོད། དྲི་བ་ཚུ་གི་བཟོ་བཀོད་ཁག་གཉིས་འབད་ཡོད། –ལན་གདམ་ཁ་ཅན་གྱི་དྲི་བ་དང་ ལན་ཐུང་གི་དྲི་བ་ཞིན། ལྟེགས་ཀྱུབ་འཛལ་ཚད་ ངེས་བརྟན་བཟོ་ནི་དོན་ལུ་ དྲི་བའི་ཀྱངས་ཁ་ལངམ་འབད་བཟོ་ནི་ཞིན།

୩.୯.୭ དྲི་བའི་བཟོ་བཀོད།

གཞི་གནས་འདི་ ལན་ཐད་ཀར་ ཡང་ན་ སྐོ་ཡངས་ཀྱི་ཐོག་ལས་ རྒྱབ་དགོ་པའི་ དྲི་བའི་རིགས་ཚུ་ཅིན་ཏེ་ དབྱེ་ཞིབ་འབད་ནི་ཞིན། ལས་སྒེ་རེ་ལུ་ དབྱེ་ཚད་ཡང་ ཟུར་སྒྲིགས་འབད་ཅིན་ཏེ་འོང། དབྱེ་ཚད་འདི་ གོང་ལུ་བཀོད་པའི་ ནང་གསེས་ཀྱི་རིག་རྩལ་ཚུ་ དབྱེ་ཞིབ་འབད་ནི་རེ་དོན་ལུ་ ལག་ལེན་འཐབ་ནི་ཞིན། ལས་སྒེ་རེནང་ ནང་གསེས་ཀྱི་རིག་རྩལ་གཅིག་ དབྱེ་ཞིབ་འབད་ནི་རེ་དོན་ལུ་ ལག་ལེན་འཐབ་ནི་ཞིན། ལས་སྒེ་རེནང་ ནང་གསེས་ཀྱི་རིག་རྩལ་གཅིག་ དབྱེ་ཞིབ་འབད་ནི་རེ་འོག་ལུ་ གནས་རིམ་མ་འདྲཔ་ཡང་ དབྱེ་ཞིབ་འབད་ནི་ཞིན།

ནང་གསེས་ཀྱི་རིག་རྩལ་ཚུ་ དབྱེ་ཚད་ནང་ལུ་ ཚད་གཞི་འབད་འོང་ནི་དང་། ཚད་གཞི་རེ་རེའི་འོག་ལུ་ གནས་རིམ་མ་འདྲཔ་ཡང་ དབྱེ་ཞིབ་མ་འདྲཔ་འབད་ བཤད་པ་རྒྱབ་སྟེ་ཡོད། དེ་ཚུ་ སྐུགས་འཐོབ་པའི་དབྱེ་ཚད་ཞིན་ལས་ གཞི་གནས་འདི་ དྲི་བ་འབད་ཡང་

འགྱོ་ནི་ཨིན། ཚད་གཞི་རེ་རེའི་ནང་ལུ་ དབྱེ་ཁག་ཚུ་ཡང་ མ་འདྲཝ་འབད་འགྱོ་འོང་། ལ་ལུ་ཅིག་ཚད་གཞི་གཉིས་(༠ ཡང་ན་༡) དཔེར་ན། ཡིག་བཟོའི་སྐྲུགས་འདི་ ལྷག་ཚུགསཔ་དང་མ་ཚུགསཔ་ལུ་ གཞི་བཞག་སྟེ་བྱིན་འོང་། ཚད་གཞི་གཞན་མི་ཚུ་ དབྱེ་ཁག་ལྔ་དང་ ཡང་ན་ དྲུག་འབད་ཡང་འོང་། ཚད་གཞི་རེའི་དབྱེ་ཁག་གི་གྲངས་ཁ་འདི་ཡང་ སློབ་ཕྲུག་གི་ལན་ཚུ་ དཔྱ་བགོ་རྐྱབ་རྡུང་བའི་ ཁ་གསལ་དང་ ཁྱད་པར་ཕྱེས་ཡོད་པའི་དབྱེ་ཁག་ཚུ་ལུ་ གཞི་བཞག་སྟེ་འབད་ནི་ཨིན།

བྲི་ནིའི་ལས་སྣ་རེ་རེ་བཞིན་ ཚད་གཞི་གཅིག་གི་ཐོག་ལས་ དབྱེ་དཔྱད་འབད་མི་སྲིད། ལས་སྣ་ཚུ་དབྱེ་ཚད་སྣ་ཚོགས་ཀྱི་ཐོག་ལས་དབྱེ་ཞིབ་འབད་ནི་ཨིན་རུང་ ཚད་གཞི་ཆ་མཉམ་ནང་ལུ་ དབྱེ་ཞིབ་མི་འབད། དཔེར་ན། གསར་བརྩོད་ཀྱི་བྲི་ནིའི་ལས་སྣ་ནང་འབད་བ་ཅིན་ དབྱེ་དཔྱད་འདི་ ཐབས་ཤེས་སྟོན་ཡོད་པའི་སྦྱུས་ཚད། མིང་ཚིག་ལག་ལེན། འབྲེལ་མཐུན་དང་ གཞི་བཀོད་ཚུ་ལུ་འབད་ནི་ཨིན། གཞན་ཡང་ འགྲེལ་བཤད་ཀྱི་རྣམ་པ་འབད་ བྲི་དགོ་པའི་ལས་སྣ་ཨིན་པ་ཅིན་ ཐབས་ཤེས་སྟོན་ནི། ཡིག་བཟོ། ཡིག་སྟེབ། ཡིག་སྦྱོར། དེ་ལས་ ཚིག་དོན་གོང་འོག་འབྲེལ་བ་ཡོད་མེད་བལྟ་སྟེ་ དབྱེ་དཔྱད་འབད་ནི་ཨིན། འདི་སློབ་ཕྲུག་གི་བྲི་ནིའི་དབྱེ་ཞིབ་ཀྱི་ཚད་གཞི་འབད་ལག་ལེན་འཐབ་ནི་ཨིན། བྲི་ནིའི་ལས་སྣ་ནང་བཙུགས་དགོ་པའི་ དམིགས་བསལ་གྱི་ཚད་གཞི་འདི་ དྲི་བ་བཟོ་བའི་སྐབས་ལུ་ གྲོས་སྡུར་འབད་དེ་ཐག་གཅད་ནི་ཨིན།

དཔྱོའི་སྐབས་ལུ་ ཚད་གཞི་ཚུ་ག་ར་ སྟེ་རིམ་གཉིས་ཆ་རའི་དོན་ལུ་ ལག་ལེན་འཐབ་བཏུབ་ནི་ཨིན། དེ་འབདཝ་ལས་ཚད་གཞི་འདི་ཚུ་གིས་ སྟེ་རིམ་གཉིས་ཆ་རའི་ནང་ དབྱེ་ཚད་གཅིག་གི་ཐོག་ལས་ མཐར་ཕྱིནམ་འབད་ དབྱེ་ཞིབ་འབད་ཚུགས་པའི་ འབྲེལ་མཐུད་ཀྱི་དྲི་བ་ཨིན་པའི་ བརྡ་སྟོན་འབད་ནི།

༣.༤.༢ དྲི་བ་ལྔ་ཁག་ཉིང་།

དབྱེ་ཞིབ་འདི་གི་ རང་བཞིན་དང་འཁྲིལཝ་ད་ སློབ་ཕྲུག་ཁོང་རའི་ལྕོགས་གྲུབ་མ་འདྲཝ་ཚུ་བརྟོན་ཏེ་ བྲི་ཚུགས་ནིའི་དོན་ལུ་ བྲི་ནིའི་དབྱེ་བ་ཚུ་ རྒྱ་ཆེཝ་འབད་བྱིན་དགོཔ་འདི་ ག་ནི་བ་ཁག་ཆེཝ་ཨིན། ག་ཅི་འབད་ཟེར་བ་ཅིན་ འདི་གིས་ སློབ་ཕྲུག་ཚུ་ལུ་ ལྕོགས་གྲུབ་ཀྱི་གནས་རིམ་ མ་འདྲཝ་ཚུ་གི་ཐོག་ལས་ ལས་སྣ་འདི་གི་ཐོག་ལུ་ བྲི་ནི་དང་ ཁོང་རའི་བསམ་འཆར་ཚུ་བཤད་ནིའི་གོ་སྐབས་བྱིནམ་ཨིན། མོ་བཏབ་འབད་ཡོད་པའི་ནང་ལས་ དཔེ་ཚད་ཚུ་ འབྲུག་གི་མཁས་མཆོག་ཚུ་གིས་ བསྐྱར་ཞིབ་འབད་བཙུག་ནི་དང་ འདི་ནང་ལས་ དྲི་བ་ལྔ་ཁག་ཉིང་གི་དབྱེ་བ་ཚུ་ ཕྱེ་ཚུགས་པའི་དམིགས་གཏད་བསྐྱེདཔ་ཨིན། དྲི་བའི་བསྐྱར་ཞིབ་དང་མོ་བཏབ་གནས་སྟུད་ཚུ་ལག་ལེན་འཐབ་སྟེ་ དྲི་བ་ཚུའི་ ལྔ་ཁག་པའི་ཁྱབ་ཚད་འདི་ དབྱེ་ཞིབ་འདི་ནང་ལུ་ ལངམ་འབད་ངེས་བརྟན་བཟོ་ནི།

༣.༥ དུས་རབས་ ༢༡ པའི་རིག་རྩལ་དང་བརྩི་མཐོང་དབྱེ་ཞིབ།

འབྲུག་གི་ཤེས་རིག་ལམ་སྟོན་བཀོད་རིས་ ༢༠༡༩-༢༠༢༩ ཅན་མའི་ནང་ཁ་གསལ་སྦྲ་བཀོད་དེ་ཡོད་པའི་ ཤེས་ཡོན་ཁྱད་ཆོས་དགུ་པོ་གིས་ རང་རྒྱུང་ཡང་ན་གཅིག་མཐུན་གྱི་ཤེས་ཡོན་གྱི་སྦྱུས་ཚད་ཚུ་ བརྡ་སྟོན་འབདཝ་ཨིན། དེ་འབདཝ་ལས་རྒྱལ་ཡོངས་ཤེས་རིག་དབྱེ་ཞིབ་ནང་ལུ་ དུས་རབས ༢༡ པའི་རིག་རྩལ་ལྕོགས་གྲུབ་ཚུ་ དབྱེ་ཞིབ་འབདཝ་ད་ གནས་སྟངས་དེ་ སློབ་ཕྲུག་གི་ཤེས་ཡོན་ ཁྱད་ཆོས་དགུ་པ་འདི་ལུ་ གཞི་བཞག་ནི་ཨིན།

སློབ་ཕྲུག་གི་ ཤེས་ཡོན་ཁྱད་ཆོས་དཀྲ་ དབྱེ་ཞིབ་ཀྱི་དོན་ལུ་ རིག་སྟོབས་གཞི་གནས་ལུ་ གཅོ་བོང་བཏོན་པའི་ ལག་ཆས་འདི་ དབྱེ་ཞིབ་ཐབས་ལམ་དྲག་ཤོས་ཅིག་མེན།

དེ་བཟུམ་སྟེ་ པི་སི་དང་ཤོག་ཀྱ་གི་དབྱེ་ཞིབ་རིམ་ལུགས་འདི་གིས་ སློབ་ཕྲུག་གི་ཤེས་ཡོན་ཁྱད་ཆོས་དཀྲ་གེ་ར་ ཚད་འཛལ་འབད་ནི་ ཆ་ཚུགས། དེ་འབདཔ་ལས་ འཕྲི་ལྷག་ཤེས་ཡོན་ཀྱི་ནང་ རིག་སྟོབས་གཞི་གནས་ཀྱི་ལག་ཆས་ཀྱིས་ ཤེས་ཡོན་དང་ རིག་རྩལ་གྱི་འཕེལ་བ་ཡོད་མི་ཁྱད་ཆོས་ཚུ་ འཛལ་ཚད་འབདཔ་ཨིན། ཁྱད་ཆོས་གསུམ་འདི་གཤམ་ལུ་འཁོད་ཡོདཔ་ཨིན།

๑) ཤེས་ཡོན་དང་གོ་རྟོགས།

๒) བློ་རིག་སྤྱོགས་གྲུབ།

๓) བརྡ་དོན་སྤྲོད་ལེན་གྱི་སྤྱོགས་གྲུབ།

སློབ་ཕྲུག་གི་ཤེས་ཡོན་ཁྱད་ཆོས་གཞན་མི་དུག་པ་འདི་ རྒྱབ་རྟེན་དྲི་བ་གིས་འབད་ གསལ་སྟོན་འབད་ནི་ཨིན།

ཐེག་ཁྲམ། ๑๓ (Table 13): *བྱི་ནིའི་འབྲི་ཕྲུག་ཤེས་ཡོན་ནང་གི་ སློབ་ཕྲུག་གི་ཤེས་ཡོན་ཁྱད་ཆོས།*

སློབ་ཕྲུག་གི་ཤེས་ཡོན་ཁྱད་ཆོས།
ཤེས་ཡོན་དང་གོ་རྟོགས་ཅེར་མི་འདི་ མི་ཚུ་གིས་ རང་སོའི་སྤྱོགས་གྲུབ་ཀྱི་དོན་འགྲུབ་ནི་དང་ གདོང་ལེན་ཚུ་བྱོ་རིག་ཅན་གྱི་སྐོལ་ལས་ འཕེལ་མཐུན་འབད་དེ་ མི་སྡེ་ལུ་སྤོགས་རམ་འབད་ཚུགས་ནིའི་དོན་ལུ་ འབྲི་ཕྲུག་ཤེས་ཡོན་གྱི་གཞི་རྟེན་དགོངས་དོན་ཚུ་ ལེན་ཚུགས་པའི་སྤྱོགས་གྲུབ་འདི་ལུ་སྤྲོད་ཨིན། འབྲི་ཕྲུག་ཤེས་ཡོན་ཅན་གྱི་མི་ཁུངས་ཚུ་གིས་ འོག་གི་ཤེས་ཡོན་དང་གོ་རྟོགས་ཀྱི་སྤྱོགས་གྲུབ་ཚུ་ དེ་ལེ་སྤྲོན་འབད་ཨིན། ➢ རང་དང་ མཐའ་འཁོར་ ཆུལ་སྤྱིའི་གནད་དོན་ཚུ་གི་སྐོར་ལས་ ལེགས་ཤོམ་འབད་ཀ་གོ་ཡོད་པའི་ དེ་ལེ་སྤྲོན་འབད་ནི། ➢ འབྲི་ཕྲུག་ཤེས་ཡོན་གྱི་རིགས་དང་ ཐབས་ལམ་མ་འདྲཔ་ཚུ་ འོས་འབབ་དང་སྦྱན་འབད་ ལག་ལེན་འཐབ་ཚུགས་པའི་སྤྱོགས་གྲུབ་དེ་ལེ་སྤྲོན་འབད་ནི། ➢ དཔེགས་གཏད་བསྒྱིད་པའི་ཡུལ་དང་མཐུན་འབད་ རང་གི་མཉེ་མི་ཚུ་ ལེགས་ཤོམ་འབད་བཤད་ཚུགས་ནི་དང་། ➢ རང་དང་མཐའ་འཁོར་ ཆུལ་སྤྱིའི་གནས་རིམ་གི་ མཐུན་རྐྱེན་གནད་དོན་ཚུ་ལེགས་ཤོམ་འབད་ གོ་བ་ལེན་ཏེ་ བཤད་ཚུགས་ནི།

བློ་རིག་གི་ཕྱོགས་གྲུབ་ཟེར་མི་འདི་ མཐོ་དཔྱད་འབད་ནི་དང་། དཀའ་ངལ་སེལ་ཐབས། དེ་ལས་ གསར་བཏོད་རིག་རྩལ་ཚུ་གིས་ འོས་འབབ་ཡོད་པའི་ཡོན་ཏན་དང་ ཐབས་ཤེས་གསརཔ་བཟོ་སྟེ་ ལག་ལེན་འཐབ་ཚུགས་མི་ལུ་སླབ་ཨིན།
འབྲི་ལྷག་ཤེས་ཡོན་ཅན་གྱི་མི་ཁུངས་ཚུ་གིས་ འོག་གི་ཁྱད་ཆོས་ཚུ་ དཔེ་སྟོན་འབདཔ་ཨིན།

- ཧེ་མ་ལས་ཡོད་པའི་ ཤེས་ཡོན་དང་བརྡ་དོན་ཚུ་ ཤེས་ཡོན་གསར་གཏོད་ཀྱི་དོན་ལུ་ གསར་རྩལ་ཅན་གྱི་སྒོ་ལས་ལག་ལེན་འཐབ་ནི།
- མི་ཚེ་ངོ་མའི་ མགུ་རྙོག་དཀའ་ངལ་ཚུ་ བསལ་ནིའི་ཐབས་ལམ་བྱིན་ཐབས་ལུ་ རྒྱུ་མཚན་ལྡན་པའི་རིག་རྩལ་ལག་ལེན་འཐབ་ནི།
- ཡོན་ཏན་གསརཔ་དང་ གསར་རྩལ་ཅན་གྱི་ཐབས་ལམ་ཚུ་ གསར་སྒྲུན་འབད་ནིའི་དོན་ལུ་ འབྱུང་གནས་སྣ་ཚོགས་ལས་ ཐོབ་པའི་འབྲེལ་ཡོད་ བརྡ་དོན་དང་ འོས་འབབ་ཆེ་རྟོག་ཏོ་འབད་ འབྲེལ་མཐུད་འབད་ནི།
- འབྲེལ་བ་ཡོད་པའི་གནས་ཚུལ་དང་ གནད་དོན་ཚུ་ལེགས་ཤོམ་འབད་ ཧ་གོ་བའི་ཐོག་ལས་ རྩོད་དོན་བཟོ་ནི།
- ཐབས་ཤེས་ཚུ་ བརྟག་ཞིབ་ཀྱི་སྒོ་ལས་ དབྱེ་ཞིབ་འབད་དེ་ འབྲེལ་བ་ཡོད་པའི་གྲོས་ཐག་གཅད་ནི་དང་།
- འབྲི་ལྷག་ཤེས་ཡོན་གྱི་ཐབས་ལམ་ སྣ་ཚོགས་དང་ རིགས་མ་འདྲཝ་ཚུ་ལག་ལེན་འཐབ་སྟེ་ འཆར་སྣང་ཡིག་བྲིསམ་ཚུ་བཟོ་ནི།

བརྡ་དོན་སྤྲོད་ལེན་གྱི་ཕྱོགས་གྲུབ་ཟེར་མི་འདི་ རྫོང་ཁའི་ཤེས་ཡོན་མཐར་ཕྱིན་པའི་སྒོ་ལས་ བསམ་འཆར་བཀོད་ནི་དང་ གནད་དོན་རྙོགས་དྲགས་ཚུ་ ཧ་གོ་ཚུགས་པའི་ཕྱོགས་གྲུབ་ལུ་ སླབ་ཨིན།
འབྲི་ལྷག་ཤེས་ཡོན་ཅན་གྱི་མི་ཁུངས་ཚུ་གིས་ འོག་གི་བརྡ་དོན་སྤྲོད་ལེན་གྱི་ཕྱོགས་གྲུབ་ཚུ་ དཔེ་སྟོན་འབདཔ་ཨིན།

- དམིགས་གཏད་བསྐྱེད་པའི་ཡུལ་ལུ་ འོས་འབབ་ཡོད་པའི་ དགོངས་དོན་དང་བརྡ་དོན་ཚུ་ བསྒྱུར་ཞིབ་འབད་ནི།
- བསམ་འཆར་ཚུ་ འོས་འབབ་ལྡན་པའི་ཐོག་ལས་ རྒྱས་བཤད་རྒྱབ་ནི།
- མཉམ་རོགས་ནང་རྟོག་དང་། མཐའ་འཁོར། ཡང་ན་ རྒྱལ་སྤྱིའི་ལས་རིམ་ཚུ་ལུ་ ཕན་གྲོགས་འབད་ཐབས་ཀྱི་དོན་ལུ་ གནད་དོན་དང་ དཀའ་ངལ་སེལ་ཐབས་ཚུ་གི་སྐོར་ལས་བཤད་ནི།
- མགུ་རྙོག་གི་བརྡ་དོན་དང་ གནད་དོན་ཚུ་ དབྱེ་དཔྱད་དང་ དོགས་སེལ། དེ་ལས་ གོ་དོན་འགྲེལ་ནི་ཚུ་ ཕན་ནུས་ཅན་འབད་ འབདཔ་མ་ཚད་ ལན་ཚུ་ཡང་ འོས་འབབ་དང་ལྡནམ་འབད་བྲི་ནི།
- ལྷག་མི་ཚུ་ལུ་ སེམས་སྐྱུལ་འབད་ནིའི་ རིག་རྩལ་ཚུ་སྟོན་ནི།

༣.༦ ཚད་འཇལ་ཚུགས་པའི་ལྷབ་སྦྱོང་གྲུབ་འབྲས།

རྩ་གཞུང་ནང་བཀོད་ཡོད་པའི་ ལྷབ་སྦྱོང་གྲུབ་འབྲས་ཚུ་གཱ་ར་ ཚད་འཇལ་མི་ཚུགས། དེ་འབདཔ་ལས་ ལྷབ་སྦྱོང་གྲུབ་འབྲས་ཚུ་བསྐྱར་ཞིབ་འབད་དེ་ ཚད་འཇལ་ཚུགས་མི་ཚུ་གདམ་འཐུ་འབད་དེ་བཙུགས་ཡོད། སློབ་ཕྲུག་ཚུ་གིས་རིག་སྟོབས་ཀྱི་ཁྱད་ཚུ་ གསལ་སྟོན་འབད་ཚུགས་ནིའི་དོན་ལུ་ སློ་རིམ་ (སློ་རིམ་ ༦ དང་ ༨ པ།) དང་ བསྟུན་ འོག་ལས་སློ་རིམ་ ༣ དང་ ལྷག་ལས་སློ་རིམ་ ༣ ཀྱི་འོས་ལྡན་ཡོད་པའི་ ལྷབ་སྦྱོང་གྲུབ་འབྲས་ཚུ་ ངོས་འཛིན་དང་ བསྐྱར་ཞིབ་འབད་དེ་ བཙུགས་ཡོད། དཔེར་ན། སློ་རིམ་ ༦ པའི་ ལྷབ་སྦྱོང་གྲུབ་འབྲས་ དབྱེ་ཞིབ་ནང་ལུ་ སློ་རིམ་བཞི་པ་ལས་བརྒྱད་པ་ཚུན་གྱི་ ལྷབ་སྦྱོང་གྲུབ་འབྲས་ཚུ་ ཚུད་དེ་ཡོད།

ཐིག་ཁམ་ ༡༤ གིས་ ཚད་འཛལ་ཚུགས་པའི་ བྱ་ནིའི་འབྲི་ལྷག་ཤེས་ཡོན་ཀྱི་ སྒོབ་རིམ་ ༤ པ་དང་ ༨ པ་གི་ལྷབ་སྦྱང་གྲུབ་འབྲས་སྟོན་མ་ཡིན།

ཐིག་ཁམ་ ༡༤ (Table 14): *གིས་ ཚད་འཛལ་ཚུགས་པའི་ བྱ་ནིའི་འབྲི་ལྷག་ཤེས་ཡོན་ཀྱི་ ལྷབ་སྦྱང་གྲུབ་འབྲས།*

སྒེའུམ་ ༤ པ།	
སྒེའུམ་༡ པ། བྱི་ནི་ ༡ པ།	མིང་ཚིག་དང་ རྩ་ཚིག་ཚུ་ གྲལ་ཐིག་ཕྱང་སྟེ་ བྱི་ཚུགས་དགོ།
སྒེའུམ་༡ པ། བྱི་ནི་ ༢ པ།	ཡི་གུ་ བཀལ་ཐངས་དང་འཁྲིལ་ཏེ་ ཡིག་བཟོ་བཏོན་ཏེ་ བྱི་ཚུགས་དགོ།
སྒེའུམ་༡ པ། བྱི་ནི་ ༣ པ།	ཚག་དང་བརྡ་ཤད་ ལག་ལེན་འཐབ་སྟེ་ བྱི་ཚུགས་དགོ།
སྒེའུམ་༡ པ། བྱི་ནི་ ༤ པ།	པར་དང་ ཅ་ལ་ལུ་བལྟ་སྟེ་ རྩ་ཚིག་ འཛམ་ཏོང་ཏོ་རེ་ བྱི་ཚུགས་དགོ།
སྒེའུམ་ ༢ པ། བྱི་ནི་ ༢ པ།	ངལ་གསོ་ཞུ་ནིའི་ ཡི་གུ་དང་ ཆ་རྐེགས་ལུ་བསྒྲལ་ནིའི་ གཏུང་ཡིག་ འཛམ་སངམ་ཚུ་ བྱི་ཚུགས་དགོ།
སྒེའུམ་ ༤ པ། བྱི་ནི་ ༤ པ།	མཐོག་ཡིག་ཚུ་ ཉིད་སངས་ས་འབད་ བྱི་ཚུགས་དགོ།
སྒེའུམ་ ༤ པ། བྱི་ནི་ ༥ པ།	མིང་ཚིག་བརྗོད་པ་ཚུ་ ཚིག་མཚམས་ བརྗོད་མཚམས་ དེན་མཚམས་ཚུ་ འོས་འབབ་དང་འཁྲིལ་ཏེ་ བྱི་ཚུགས་དགོ།
སྒེའུམ་ ༤ པ། བྱི་ནི་ ༦ པ།	འགེལ་བཤད་དང་ ལོ་རྒྱུས་འབྱི་རྩོམ་ཚུ་ དཔེ་དཔྱད་འབད་དེ་ བྱི་ཚུགས་དགོ།
སྒེའུམ་ ༤ པ། བྱི་ནི་ ༨ པ།	གསལ་བཤད་དང་ ཞབས་ཏག ཆུང་མོ་དང་འཚེལ་བའི་ སྐན་རྩོམ་ཚུ་ བྱི་ཚུགས་དགོ།
སྒེའུམ་ ༤ པ། བྱི་ནི་ ༡༠ པ།	དྲི་བ་དང་བསྟུན་པའི་ལན་ཚུ་ འོས་འབབ་དང་ལྡན་འབད་ བྱི་ཚུགས་དགོ།
སྒེའུམ་ ༤ པ། བྱི་ནི་ ༡༡ པ།	ཐུང་ཚ་ ༡༠༠ ཚུན་ ཡིག་གཟུགས་ནང་ བྱི་ཚུགས་དགོ།
སྒེའུམ་ ༧ པ། བྱི་ནི་ ༡༢ པ།	འབྱི་རྩོམ་སྦྱིཔ་དང་ བརྗོད་མཚམས་ ཚིག་མཚམས་དེན་མཚམས་ཚུ་ ལག་ལེན་འཐབ་སྟེ་ བྱི་ཚུགས་དགོ།
སྒེའུམ་ ༧ པ། བྱི་ནི་ ༡༣ པ།	དུས་རྒྱུན་ འབྱི་སྡོལ་ཡོད་པའི་ བསྡུ་ཡིག་ཚུ་གི་ འབྱི་ཐངས་ ཤེས་ཚུགས་དགོ།
སྒེའུམ་ ༢ པ། བྱི་ནི་ ༡༤ པ།	དྲི་ཤོག་དང་ བཀོད་ཤོག་ བཀར་ནི་དང་ ཐོ་ཡིག་ཚུ་ བཀོད་ཚུགས་དགོ།
སྒེའུམ་ ༢ པ། བྱི་ནི་ ༡༥ པ།	འཚེལ་ཡོད་ གནད་དོན་ཚུ་གི་སྐོར་ལས་ ཞུ་ཡིག་ གཏུང་ཡིག་ འབྱི་རྩོམ་ཚུ་ འབྱི་ཐངས་ཀྱི་ ལམ་ལུགས་དང་ འཁྲིལ་ཏེ་ བྱི་ཚུགས་དགོ།
སྒེའུམ་ ༢ པ། བྱི་ནི་ ༡༦ པ།	མཁོ་ཆེ་བའི་ བསྡུ་ཡིག་དང་ ཡིག་སྡེབ་ཚུ་ ལག་ལེན་འཐབ་སྟེ་ བྱི་ཚུགས་དགོ།
སྒེའུམ་ ༢ པ། བྱི་ནི་ ༡༧ པ།	རྩོམ་འབྱི་འབད་བའི་སྐབས་ འཆར་གཞི་བཟོ་ནི་ ཟིན་བྱིས་བགོད་ནི་ བསྒྲུབ་ཞིབ་འབད་ནི་ ཞུན་དག་ཆུབ་ཐངས་ཚུ་གི་ རིག་རྩལ་ འཐོབ་ཚུགས་དགོ།

སྡེ་རིམ་ ༤ པ།	
སྡེ་རིམ་ ༧ པ། བྱེ་ཕེ་ ༡ པ།	འབྲི་རྩོམ་བྱེད་དང་ བརྗོད་མཚམས་ ཚིག་མཚམས་དོན་མཚམས་ཚུ་ ལག་ལེན་འཐབ་སྟེ་ བྱེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། བྱེ་ཕེ་ ༢ པ།	དུས་རྒྱུན་ འབྲི་སྟོལ་ཡོད་པའི་ བསྡུ་ཡིག་ཚུ་གི་ འབྲི་ཐངས་ ཤེས་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། བྱེ་ཕེ་ ༣ པ།	དྲི་ཞོག་དང་ བཀོད་ཞོག་ བཀང་ཆེ་དང་ ཐོ་ཡིག་ཚུ་ བཀོད་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། བྱེ་ཕེ་ ༤ པ།	འཛེལ་ཡོད་ གནད་དོན་ཚུ་གི་སྒོར་ལས་ ཞུ་ཡིག་ གཏུང་ཡིག་ འབྲི་རྩོམ་ཚུ་ འབྲི་ཐངས་ཀྱི་ལམ་ལུགས་དང་འཁིལ་ཏེ་ བྱེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། བྱེ་ཕེ་ ༥ པ།	མཁོ་ཆེ་བའི་ བསྡུ་ཡིག་དང་ ཡིག་སྡེབ་ཚུ་ ལག་ལེན་འཐབ་སྟེ་ བྱེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། བྱེ་ཕེ་ ༦ པ།	རྩོམ་འབྲི་འབད་བའི་སྐབས་ འཆར་གཞི་བཟོ་ནི་ ཟིན་བྱིས་བཀོད་ནི་ བསྒྲུར་ཞིབ་འབད་ནི་ ཞུན་དག་རྒྱབ་ཐངས་ཚུ་གི་ རིག་རྩལ་ འཐོབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༨ པ། བྱེ་ཕེ་ ༧ པ།	མཐུགས་ཡིག་གི་ ཡིག་བཟོ་སྟོམ་སྒྲིག་དང་ བཀལ་ཐངས་ཚུ་ ཚུལ་མཐུན་འབད་ བྱེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༨ པ། བྱེ་ཕེ་ ༨ པ།	འབྲི་རྩོམ་ནང་ལུ་ གནད་དོན་བཙུགས་ཐངས་དང་ བརྗོད་མཚམས་ ཚིག་མཚམས་ དོན་མཚམས་ཚུ་ ལམ་ལུགས་དང་འཁིལ་ཏེ་ བྱེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༨ པ། བྱེ་ཕེ་ ༩ པ།	རང་གི་ཉམས་མྱོང་ལུ་ གཞི་བཞག་སྟེ་བཤད་རྩོམ་དང་ དཔག་སྒྲུབ་ཀྱི་ ཚིག་འཛམ་ཇོར་ཇེ་ བྱེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༨ པ། བྱེ་ཕེ་ ༡༠ པ།	ལས་འགུལ་ རྩོམ་སྒྲིག་འབད་བའི་སྐབས་ ཞེབ་འཚོལ་འབད་ནི་ འཆར་གཞི་བཟོ་ ནི་ཟིན་བྱིས་བཀོད་ནི་ བསྒྲུར་ཞིབ་འབད་ནི་ ཞུན་དག་འབད་ནིའི་ཐབས་ལམ་དང་སྒྲིག་བཀོད་ཚུ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༡༠ པ། བྱེ་ཕེ་ ༡༡ པ།	མཐོ་རྒྱན་ཚུ་དང་ མཐུགས་ཡིག་གི་ ཡིག་བཟོ་སྟོམ་སྒྲིག་དང་ བཀལ་ཐངས་ཚུ་ ཚུལ་མཐུན་འབད་ བྱེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༡༠ པ། བྱེ་ཕེ་ ༡༢ པ།	རང་གི་མཉེ་དོན་དང་ ཉམས་མྱོང་ འཆར་སྐྱང་ དངོས་མཐོང་ལུ་ གཞི་བཞག་པའི་ བཤད་རྩོམ་དང་ ཚིག་སྡུ་བཅད་པའི་རྩོམ་ དབེར་ན། ཞབས་ཏུ་དང་རྩངས་མོ་ བྱོ་ ཟེ་ལ་སོགས་པའི་སྐུན་རྩོམ་ཚུ་ བྱེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༡༠ པ། བྱེ་ཕེ་ ༡༣ པ།	དཔྱིད་སྐད་ནང་ལས་ རྩོང་ཁ་ནང་སྐད་སྒྱུར་འབད་དེ་བྱེ་ནི་ རིག་རྩལ་ཀྱི་གཞི་འགྱམ་ འཐོབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༡༠ པ། བྱེ་ཕེ་ ༡༤ པ།	ཞུ་ཡིག། གཏུང་ཡིག། འཕྲིན་ཡིག། བཀའ་རྒྱ། སྐྱན་ཁུ། སྐྱན་གསོལ། ཟིན་བྱིས་ལས་རིམ། གྲོས་གཞི། གྲོས་ཚོད། ཞུ་ཚིག་/བཤེར་ཡིག། ངག་བརྗོད། འབའ་གནད་རྒྱ་ཚུ། བྱེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༡༠ པ། བྱེ་ཕེ་ ༡༥ པ།	འབྲི་རྩོམ་ཀྱི་སྐབས་ལུ་ འཆར་གཞི་བཟོ་ནི། ཟིན་བྱིས་བཀོད་ནི། བསྒྲུར་ཞིབ་འབད་ནི། ཞུན་དག་རྒྱབ་ཐངས་ཀྱི་ རིག་རྩལ་ཚུ། རང་སྟོབས་ཀྱིས་ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༡༡ པ། བྱེ་ཕེ་ ༡༦ པ།	གཞན་ཀྱིས་རྩོམ་སྒྲིག་འབད་མི་ཚུ་ དབྱེ་བ་དཔྱད་དེ་ རང་གི་བློ་འདོད་ལྟར་ གོ་རིམ་བསྒྲིགས་ཏེ་ བྱེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༡༡ པ། བྱེ་ཕེ་ ༡༧ པ།	ཐལ་རྩོམ། སྐྱན་རྩོམ། བཤད་རྩོམ། འཛམ་ཇོར་ཇེ་ ཚིགས་བཅད་ ཚིག་ལྷུག་ སྤེལ་མ་ གསུམ་ཀྱི་ཐོག་ལས་ བྱེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༡༡ པ། བྱེ་ཕེ་ ༡༨ པ།	སྡུང་དེབ་དང་ རྣམ་ཐར་ལུ་གཞི་བཞག་སྟེ་ འཁྲབ་རྩེད་ འཛམ་ཇོར་ཇེ་ བྱེ་ཚུགས་དགོ།

ཐིག་ཁྲམ་ ༡༥ གིས་ ཚད་འཛལ་ཚུགས་པའི་ སློབ་རིམ་ ༤ པ་དང་ ༨ པ་གི་སྐད་ཡིག་གི་ནང་ལས་ ལྷག་སྤྱང་གྱང་འབྲས་ གདམ་འཐུ་འབད་ཡོད་མི་ཚུ་གི་ ཐོ་སྟེགས་ཚིན།

ཐིག་ཁྲམ་ ༡༥ (Table 15): *གིས་ ཚད་འཛལ་ཚུགས་པའི་ སྐད་ཡིག་གི་ནང་ལས་ལྷག་སྤྱང་འབྲས། (སློབ་རིམ་ ༤ པ་དང་ ༨ པ།)*

སྡེ་རིམ་ ༤ པ །	
སྡེ་རིམ་ ༡ པ། ཡིག་སྒྱོང་ ༡ པ།	ཚིག་འབྲུའི་བར་ན་ ཚག་དང་ མིང་ཚིག་དང་ རྗོད་ཚིག་གི་ཤུལ་ལས་ ཤད་ཚུ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༡ པ། ཡིག་སྒྱོང་ ༢ པ།	ལོག་པའི་ཡི་གུ་དང་ མཐུག་པོའི་ཡི་གུ་ཚུ་ ངོས་འཛིན་ འབད་ཚུགས་དགོ།
སྡེ་རིམ་ ༡ པ། ཡིག་སྒྱོང་ ༣ པ།	རྗོད་ཚིག་ འཛམ་སངམ་ཚུ་ སྒྲིག་བཟོད་ འབད་ཚུགས་དགོ།
སྡེ་རིམ་ ༡ པ། ཡིག་སྒྱོང་ ༤ པ།	མིང་ཚབ་ངོས་འཛིན་དང་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༡ པ། ཡིག་སྒྱོང་ ༥ པ།	ཨ་རྟག་ར་ ལག་ལེན་འཐབ་དགོ་པའི་ བྱ་ཚིག་ཚུ་ ཤེས་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ། ཡིག་སྒྱོང་ ༦ པ།	ལ་དོན་གྱི་ཐུད་ ངོས་འཛིན་འབད་དེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ། ཡིག་སྒྱོང་ ༧ པ།	ངུས་རྒྱུན་མཁོ་བའི་ མིངཚིག་གི་སྡེབ་ཚུ་ ཚད་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ། ཡིག་སྒྱོང་ ༨ པ།	འབྲུང་ཁུངས་ཀྱི་ཐུད་ ངོས་འཛིན་འབད་དེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༦ པ། ཡིག་སྒྱོང་ ༩ པ།	མིང་དང་ མིངགི་ཁྲད་ཚིག་ཚུ་ ཤེས་ཚུགས་དགོ།
སྡེ་རིམ་ ༦ པ། ཡིག་སྒྱོང་ ༡༠ པ།	མངཚིག་དང་གཅིག་ཚིག་ ཚ་མོའི་ཚིག་ཚུ་ ངོས་འཛིན་འབད་དེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༦ པ། ཡིག་སྒྱོང་ ༡༡ པ།	འཕེལ་སྒྲ་ ངོས་འཛིན་དང་ སྒྲའི་སྒྱོང་ཚུལ་ཚུ་ ཤེས་ཚུགས་དགོ།
སྡེ་རིམ་ ༦ པ། ཡིག་སྒྱོང་ ༡༢ པ།	བྱ་ཚིག་གི་ ཚིག་གྲོགས་ངོས་འཛིན་དང་ སྒྱོང་ཚུལ་ ཤེས་ཚུགས་དགོ།
སྡེ་རིམ་ ༦ པ། ཡིག་སྒྱོང་ ༡༣ པ།	ཚིགས་བཅད་ཀྱི་ བརྗོད་པ་ངོས་འཛིན་དང་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༦ པ། ཡིག་སྒྱོང་ ༡༤ པ།	སྒྲུབ་ཚིག་དང་ དགག་ཚིག་ཚུ་ ངོས་འཛིན་ འབད་ཚུགས་དགོ།
སྡེ་རིམ་ ༦ པ། ཡིག་སྒྱོང་ ༡༥ པ།	མིང་མཐའ་ངོས་འཛིན་དང་ སྒྱོང་ཚུལ་ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། ཡིག་སྒྱོང་ ༡༦ པ།	མིངཚིག་བརྗོད་པའི་ དབྱེ་བ་ཚུ་ངོས་འཛིན་འབད་དེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། ཡིག་སྒྱོང་ ༡༧ པ།	འཕེལ་སྒྲ་དང་ ཅིད་སྒྲའི་ དོན་གྱི་འཛུག་ཚུལ་ཚུ་ ཤེས་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། ཡིག་སྒྱོང་ ༡༨ པ།	ལྷག་བཅས་ཀྱི་ཐུད་ཚུ་ ངོས་འཛིན་དང་ སྒྲའི་སྒྱོང་ཚུལ་ ཤེས་ཚུགས་དགོ།

སྡེ་རིམ་ ༧ པ། ཡིག་སྒྱོར་ ༡༨ པ།	ཞེ་ས་དང་ཚལ་སྐད་ཀྱི་ དབྱེ་བ་ཚུ་ ཤེས་ཏེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། ཡིག་སྒྱོར་ ༢༠ པ།	འཛེལ་ཆོག་ཚུ་ ངོས་འཛིན་འབད་དེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། ཡིག་སྒྱོར་ ༢༡ པ།	དེ་སྒྲ་དང་ ནེ་སྒྲའི་འཇུག་ཚུལ་ ངོས་འཛིན་འབད་དེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། ཡིག་སྒྱོར་ ༢༢ པ།	བྱ་ཆོག་ལུ་ དུས་གསུམ་གྱི་ དབྱེ་བ་ ཤེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། ཡིག་སྒྱོར་ ༢༣ པ།	རྒྱན་སྤྱད་དང་ བྱེད་སྒྲིངས་འཛིན་འབད་དེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༨ པ། ཡིག་སྒྱོར་ ༢༩ པ།	བརྗོད་པ་རྒྱབ་ ཆ་ཚང་ སྟ་བསྟུས་ ཚིགས་བཅད་ཀྱི་བརྗོད་པ་ཚུ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༨ པ། ཡིག་སྒྱོར་ ༣༥ པ།	བྱ་ཆོག་ བྱེད་ཆོག་ སྐུལ་ཆོག་ཚུ་ ངོས་འཛིན་འབད་དེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༨ པ། ཡིག་སྒྱོར་ ༣༨ པ།	ལྷག་བཅས་ཀྱི་ དོན་ཀྱི་འཇུག་ཚུལ་ཚུ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༨ པ། ཡིག་སྒྱོར་ ༣༧ པ།	གང་ཟག་དང་ གཉེས་པ་ གསུམ་པ་གི་ ཁྱད་པར་ཤེས་ཏེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༨ པ། ཡིག་སྒྱོར་ ༣༤ པ།	ཚིགས་བཅད་ཀྱི་བརྗོད་པ་ ངོས་འཛིན་འབད་དེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༨ པ། ཡིག་སྒྱོར་ ༣༨ པ།	དག་ཐོག་དང་ཡིག་ཐོག་གི་ བརྡ་དོན་སྒྲིད་ལེན་ནང་ སྐུ་གཟུགས་དང་ སྐོར་གཟུགས་ དཔྱེ་གཟུགས་ ཞེ་ས་དང་ ཚལ་སྐད་ཀྱི་དབྱེ་བ་ཤེས་ཏེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༨ པ། ཡིག་སྒྱོར་ ༣༠ པ།	མཁོ་ཆེ་བའི་ བསྟུ་ཡིག་འབྲི་ཐངས་ཀྱི་ ཡམ་ལུགས་ཚུ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༨ པ། ཡིག་སྒྱོར་ ༣༧ པ།	ཚིག་མཚམས་ བརྗོད་མཚམས་ དོན་མཚམས་ཚུ་ དབྱེ་བ་ཤེས་ཏེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༨ པ། ཡིག་སྒྱོར་ ༣༢ པ།	བརྡ་བཤད་ཀྱི་རིགས་ ངོས་འཛིན་འབད་དེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༩ པ།	
སྡེ་རིམ་ ༧ པ། ཡིག་སྒྱོར་ ༡ པ།	མིངཆོག་བརྗོད་པའི་ དབྱེ་བ་ཚུ་ངོས་འཛིན་འབད་དེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། ཡིག་སྒྱོར་ ༢ པ།	ཉེར་མཁོའི་ བྱ་ཆོག་གི་ཡིག་སྒེབ་ཚུ་ འཐོབ་ལམ་དང་འཁྱིལ་ཏེ་ ཤེས་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། ཡིག་སྒྱོར་ ༣ པ།	འཛེལ་སྒྲ་དང་ བྱེད་སྒྲའི་ དོན་ཀྱི་འཇུག་ཚུལ་ཚུ་ ཤེས་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། ཡིག་སྒྱོར་ ༤ པ།	ལྷག་བཅས་ཀྱི་ ངོས་འཛིན་དང་ སྒྲའི་སྒྱོར་ཚུལ་ ཤེས་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། ཡིག་སྒྱོར་ ༥ པ།	ཞེ་ས་དང་ཚལ་སྐད་ཀྱི་ དབྱེ་བ་ཚུ་ཤེས་ཏེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། ཡིག་སྒྱོར་ ༦ པ།	བྱ་ཆོག་ལུ་ དུས་གསུམ་གྱི་ དབྱེ་བ་ ཤེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༧ པ། ཡིག་སྒྱོར་ ༧ པ།	རྒྱན་སྤྱད་དང་ བྱེད་སྒྲིངས་འཛིན་འབད་དེ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།

སྡེ་རིམ་ ༤ པ། ཡིག་སྒྱོར་ ༤ པ།	བརྗོད་པ་རྒྱང་པ། ཚ་ཚང་། སྣ་བསྡུས། ཚོགས་བཅད་ཀྱི་བརྗོད་པ་ཚུ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༤ པ། ཡིག་སྒྱོར་ ༥ པ།	སྐད་ཡིག་གི་ དོན་སྒྲོད་ ཤེས་ཚུགས་དགོ།
སྡེ་རིམ་ ༤ པ། ཡིག་སྒྱོར་ ༡༠ པ།	རྣམ་དབྱེ་བརྒྱད་ཀྱི་ དོས་འཛིན་དང་ འབྲེལ་ཆོག་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༤ པ། ཡིག་སྒྱོར་ ༡༡ པ།	ནི་སྒྲ་ ན་དང་ཅིན་ཀྱི་སྒྲ་ འདྲི་ཆོག་གི་འཛུག་ཚུལ་ཚུ་ ཤེས་ཚུགས་དགོ།
སྡེ་རིམ་ ༤ པ། ཡིག་སྒྱོར་ ༡༢ པ།	ཉེར་མཁོའི་མིང་ཆོག་ཚུ་ སྤེལ་ཚར་མ་འབད་ བྱེ་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ། ཡིག་སྒྱོར་ ༡༣ པ།	ཐུན་མོང་ལས་ཆོག་དང་ སློན་ཆོག་ཚུ་ ཤེས་ཚུགས་དགོ།
སྡེ་རིམ་ ༥ པ། ཡིག་སྒྱོར་ ༡༤ པ།	ཆོག་མཚམས་ བརྗོད་མཚམས་ དོན་མཚམས་གཅད་ཐང་ཚུ་ཤེས་ཏེ་ ལག་ལེན་འཐབ་ ཚུགས་དགོ།
སྡེ་རིམ་ ༡༠ པ། ཡིག་སྒྱོར་ ༡༥ པ།	བདག་སྒྲ་དང་ ཅི་དང་ཡི་གི་ཆོག་ཐུབ་ཚུ་ ལག་ལེན་ འཐབ་ཚུགས་དགོ།
སྡེ་རིམ་ ༡༠ པ། ཡིག་སྒྱོར་ ༡༦ པ།	མིང་དང་བྱ་ཆོག་གི་ ཞེ་སའི་སྒྱོར་ཚུལ་དང་ གདམ་ང་ཅན་ཀྱི་ཡི་གུའི་ དབྱེ་བ་ ཤེས་ཚུགས་དགོ།
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CHAPTER 4: ENGLISH READING LITERACY

4.1 Introduction

This chapter sets the framework for the assessment of English Reading Literacy domain for grades III, VI and IX. The importance of Reading Literacy is discussed first, followed by the definition of Reading Literacy, organisation of the domain, item variables, assessing the domain, assessing 21st Century Competencies and the measurable learning outcomes.

4.1.1 Importance of Reading

The fundamental importance of reading to the human condition is clearly stated in the National English Curriculum Framework PP-XII (REC, 2013, p. 1).

"Reading is the key to unlocking the vault of the wisdom of the race. To read well is to be in contact with those who have gone before us, who have discovered what it is to be human and the best ways to organise themselves to achieve happiness."

Numerous research studies have emphasised the importance of Reading Literacy as a foundational skill in building fundamental skills of the 21st century. Holloway (1999) suggests that reading skills are essential for the academic achievement of middle and high school students. Further, it is considered an essential skill for the successful participation and integration into the society (Cunningham & Stanovich, 1998; Smith et al., 2000).

In the 21st century, the ability to access different sources of information and collate them has become increasingly important (OECD, 2019). The access to information is limited only by the ability – or lack of it – to read, making it a fundamental skill that can significantly impact a student's quality of learning. The ability of individuals to read has an impact not just on the individuals but also on the prosperity of a nation as a whole. Canadian economists have found that the average literacy level of a nation's population is a better predictor of its economic growth than educational achievement over a long period of time (Coulombe et al., 2004).

The Silken Knot, 2002 – Standards for English for Schools in Bhutan and the national curriculum also underscore the importance of reading as a foundational skill in the 21st century. Thus, it is important to undertake an assessment of Reading Literacy to understand the strengths and identify the areas of improvement in the current school system.

4.2 Defining Reading Literacy

One of the objectives of the NEA is to go beyond curriculum and evaluate students' ability to utilise their knowledge and skills to become contributing citizens and to successfully integrate and participate in the society. Therefore, this assessment takes the "literacy" approach following international

best practices in assessments such as the PISA. The "literacy" concept goes beyond knowledge, understanding, and skills inherent in each learning domain; it encompasses the ability to acquire and apply such knowledge and skills.

The definition of Reading Literacy is as follows:

Reading Literacy is the ability of an individual to make meaning from written texts at various levels through an interactive process to fulfil personal and social needs and be a contributing member of the society.

Reading literacy…

The term "Reading Literacy" is preferred to "reading" to convey the breadth of coverage. Reading Literacy goes beyond the mere decoding of words. It includes skills such as locating, interpreting, drawing inferences and reflecting on the form and content of various texts. The term is also intended to indicate that reading is done in a context and for a purpose.

…is the ability of an individual to make meaning from written texts…

Reading Literacy is the ability that students demonstrate by deriving meaning from the materials they read. The term "written text" is included to indicate that spoken texts are excluded. Written texts could be in various formats – handwritten, printed, or digital – and could be continuous or non-continuous.

… at various levels…

Gray (1960) defines reading as having three levels – reading the lines, reading between the lines, and reading beyond the lines. Reading Literacy comprises skills at all these levels. It begins with the ability to decode and goes on to comprehension and the higher levels of cognitive abilities.

… through an interactive process…

This phrase emphasises that reading is not a unidirectional process where a reader directly absorbs the written word. Instead, the reader brings a whole gamut of previously acquired skills and knowledge to the table that influence how texts are interpreted, comprehended, and inferred. These include the reader's prior knowledge, experiences, and beliefs.

…to fulfil personal and social needs…

The manner in which a text is read is often influenced by the context and the purpose. No text is read in isolation. Therefore, to assess Reading Literacy in a realistic manner, texts chosen must depict a rich variety of contexts and purposes to reflect the authenticity of reading in real-life scenarios. "…personal and social needs…" reflect the various needs of a reader and must be understood from an individual's

perspective. For instance, personal needs could include reading a story or a poem for pleasure. Social needs could be fulfilled by reading blogs, newspapers, magazines, etc. to be better informed and by reading e-mails, chats, social media posts, etc., to communicate.

…and be a contributing member of the society.

It is important to understand the significance of Reading Literacy not just from the perspective of the individual but also from the perspective of society at large. This phrase is intended to convey that Reading Literacy is essential for a citizen to be able to meaningfully engage with and participate in society and contribute to its progress.

4.3 Organisation of the Domain

The Reading Literacy as a domain is described in terms of context, text variables, and item variables. Context refers to the theme or setting of the texts. Text variables refer to parameters such as text type, text format, appropriate length, and complexity. Item variables comprise the cognitive competencies that are assessed and item formats used to frame the items. Item in the Reading Literacy domain are generally presented as units that include a reading text and items to assess comprehension of the text.

4.3.1 Contexts

This domain encompasses various purposes and contexts in which reading takes place. Therefore, to ensure a broad coverage of contexts, the texts included in the assessment are categorised as personal, local, and global. Appropriate representation of each category is ensured. Definitions of different contexts are provided below.

Personal context has individual focus. Reading tasks that fit personal context include those that are primarily for self-enjoyment or development, such as reading a text for information or pleasure, ex., reading a story.

Local context has an interactive focus requiring engagement with other individuals or with elements of the community, including the nation. This type of context involves day-to-day situations and activities at home, school, local community, and the country where the focus of thought and action lies in connections and interactions with people or objects with which learners are familiar. Reading texts that reflect local context include a letter from a friend, a school timetable, or a description of one's hometown or the country.

Global context has an external focus on broader situations that may affect whole communities or countries or have an even wider global relevance. Texts fitting this context type include those dealing with broad social issues such as public policy, transport systems, and advertisements. Reading texts that reflect a global context include a newspaper report, articles in a magazine, or a historical description. Table 16 shows the approximate weighting for contexts across grades which is calculated based on the design and context of the English curriculum.

Table 16: *Weighting of Contexts Across Grades in Reading Literacy*

Contexts	Grade III	Grade VI	Grade IX
Personal	50-60%	40-50%	15-25%
Local	30-40%	35-45%	30-40%
Global	5-15%	10-20%	40-50%

4.3.2 Text Variables

Text variables refer to parameters such as text type, text format, appropriate length, and complexity. Whatever the text variable, the following criteria are used while selecting the text.

- Appropriate in content and relevant to the students' age at the target grade level
- Cater to the entire range of student abilities at grades III, VI and IX
- Self-contained (for example, an extract from a longer magazine article must require no prior knowledge from the reader about the topic or the article)
- Contain materials that students are not likely to have encountered (The materials must not come from a textbook or other frequently-used teaching resource)
- Factually accurate
- Grammatically correct
- Appropriately illustrated
- Appropriate in terms of socio-cultural context
- Gender-sensitive
- Fair, that is, equally accessible for students from all backgrounds likely to take part in the assessment
- Inclusive in the usage of texts and graphics to support and extend meaning

4.3.2.1 Text Types

Text type refers to genre and broad purpose of a text. It is important to ensure a wide representation of text types in the assessment as different types of text have different inherent features. It is essential that an assessment of Reading Literacy comprises as wide a range of texts as possible. The types of text included in Reading Literacy are described below.

Imaginative texts represent feelings, ideas, and mental pictures using words or visual images. Such texts present and develop characters, events and themes, and deal with questions relating to when, or in what sequence. The primary goal is to entertain the readers. Examples of imaginative texts are short stories, plays, comic strips, etc.

Descriptive texts present information about people, objects, and abstract concepts or constructs. These kinds of texts address what questions and some how questions. Description includes forms of writing sometimes referred to as exposition. Examples of descriptive texts include describing a person, place, plant, problem, feeling or a phenomenon, or, at the level of precursor skills, a label for an image.

Persuasive texts deal with opinions and points of view and are used to persuade the reader. They address some of the which and why questions. Examples of persuasive texts are, a letter to an editor, a book review, an advertisement, a job application, or a discussion of the advantages or disadvantages of a certain public policy.

Instructional texts explain what to do in order to complete a specified task, and thus address some of the how and when questions. Examples of instructional texts are giving directions for finding a location, listing materials and steps required to make an object, and explaining what to do in an emergency.

Transactional texts aim to achieve a specific purpose involving an exchange of information between two or more parties, such as arranging for something to be done. Transactions are represented by reading tasks such as a message from a friend, or correspondence related to the delivery of goods.

In addition to these text types, the Reading Literacy includes items for grade III that involve assessing comprehension of single words, phrases, or sentences. These are categorised as **Labelling.**

The approximate weighting for text types across grades which is calculated based on the design and content of the national English curriculum is provided in Table 17.

Table 17: *Weighting of Text Types Across Grades in Reading Literacy*

Type of texts	Grade III	Grade VI	Grade IX
Imaginative	25-35%	20-30%	10-20%
Descriptive	20-30%	30-40%	20-30%
Persuasive	5-15%	10-20%	25-35%
Instructional	10-20%	10-20%	10-20%
Transactional	5-15%	5-15%	10-20%
Labelling	5-15%	0%	0%

The approximate weighting reflects the importance of different types of texts at different grade levels, and also the likelihood of encountering or using such texts at different age levels. For instance, as students graduate to higher grades, they are more likely to encounter persuasive texts than other types of texts. Students in grade III, however, are much more likely to encounter stories and other imaginative texts.

4.3.2.2 Text Formats and Length

Texts can be of different formats – continuous, non-continuous, and mixed. **Continuous texts** contain complete sentences and have a traditional paragraph structure. **Non-continuous texts** contain phrases or incomplete sentences, for instance, in the form of bullet points. Materials in the non-continuous text could be organised in text boxes, graphs, diagrams, or tables. **Mixed texts** contain both continuous and non-continuous formats within a single text. Examples include a page from a newspaper that comprises prose text and graphs, or several texts on a single theme but in one format, such as several opinion pieces by different authors related to a single issue.

It is important to ensure that the range of complexity of texts increases as the grade level increases. Among the various measures of complexity of a text, length is a measure that can be quantified. Therefore, the length of the text used in each grade is considered as provided in Table 18.

Table 18: *Approximate Length of Texts Across Grades in Reading Literacy*

Grades	Text Length (all text types)
Grade III	1-100 words
Grade VI	100-250 words
Grade IX	200-350 words

The approximate text length is based on the time, design, and context of the English Curriculum Framework. The age and cognitive development of students are taken into consideration. A further concern is to ensure that the texts are of sufficient length and complexity to allow questions to be asked that assess the full range of reading comprehension sub-skills.

4.4 Item Variables

Item variables are described in terms of the levels of cognitive processes involved in order to respond to the items.

4.4.1 Cognitive Processes

The Reading Literacy assessment includes four cognitive processes as defined below.

Table 19: *Cognitive Processes in Reading Literacy*

Codes	Processes	Descriptions
RP1	Locate information	Students need to locate and extract a specific piece of information explicitly stated in the text. Sometimes the information to be located is found in a single sentence and sometimes it must be gleaned from several paragraphs. This kind of reading has been called "reading the lines" (Gray, 1960) because no inference or only minimal inference is required to complete this kind of task.
RP2	Grasp ideas and interpret information	Students need to demonstrate that they have understood an idea conveyed in the text and interpret it correctly. For example, students may need to identify the text's main idea and/or the sequence of events and/or relationships between ideas, events, or characters across the text. In addition, students may need to draw simple conclusions based on their interpretation of the text.
RP3	Infer information	Students need to demonstrate an understanding beyond the information and/or ideas stated explicitly in the text, hence, they are asked to read between the lines. For example, students may be asked to identify the text's underlying theme, evaluate its title by examining the text from more than one perspective, and make inferences about the qualities or actions of characters.

RP4	Reflect on and evaluate texts	In items testing this process, students are asked to relate and evaluate the information given in the text with what they already know and make judgements. As this skill goes beyond the text itself, it has been called "reading beyond the lines" (Gray, 1960). The broad range of tasks categorised under this process include focusing on the intended audience of a text or the attitude of the writer, making an evaluation of an argument or a judgement about a character, explaining the effect of a text feature such as its layout, and comparing behaviour of a character in a story with that of acquaintances.

The approximate weighting for each cognitive process across grades based on the design and context of the English curriculum is provided in Table 20.

Table 20: *Weighting of Cognitive Processes Across Grades in Reading Literacy*

Processes	Grade III	Grade VI	Grade IX
Locate information	35-45%	20-30%	10-20%
Grasp and interpret	25-35%	30-40%	20-30%
Infer information	15-25%	20-30%	30-40%
Reflect and evaluate	5-15%	10-20%	20-30%

The distribution of items of various categories across grade levels shows an increase in the number of items requiring higher-order cognitive processes as the grade level increases. This reflects the idea that as students begin to read, they spend more time decoding and thus, need to develop their reading skills more to be able to display higher-order cognitive processes.

4.5 Assessing the Domain

For the assessment of Reading Literacy, the test instruments constitute various contexts with varying cognitive processes. The items are presented in two broad formats – Multiple Choice Questions (MCQ) and Constructed Response Tasks (CRT). A sufficient number of items are developed to ensure that a proficiency scale can be generated.

The next section defines item formats, provides details of item difficulty, and specifies the selected learning outcomes.

4.5.1 Item Formats

MCQ – are items that require the selection of a single response from a set of multiple options.

CRT are items that require responses either through writing or drawing. The length of the written response may vary from a phrase to a short paragraph (two or three sentences).

The approximate weighting for item format in Reading Literacy is provided in Table 21. Note that the weighting of item format irrespective of the grades are same.

Table 21: *Weighting of Item Format Across Grades in Reading Literacy*

Item Format	Proportion
MCQ	80-85%
CRT	15-20%

4.5.2 Item Difficulty

It is important for an assessment of this nature to include items covering a broad range of difficulty levels to ensure that sufficient information can be gathered about students at all ability levels. Therefore, items developed must be spread across different levels of difficulty. Item review and pilot data must be used to ensure that a sufficient number of items from an appropriate spread of difficulty levels are included in the assessment.

4.6 Assessing 21st Century Competencies

The Bhutan Education Blueprint 2014-2024 articulates Nine Student Attributes that indicate the quality of learning, individually or collectively. Accordingly, in the NEA, the 21st Century Competencies assessed are in the context of Nine Student Attributes.

Typically, assessment instruments dedicated to the cognitive domain are not the best instruments to measure all the Nine Student Attributes. However, tactful development and appropriate selection of texts can be used to measure them implicitly. Therefore, in the Reading Literacy, the cognitive instruments focus on measuring knowledge and competencies related to the following three attributes:

1. Knowledge and understanding
2. Intellectual competence
3. Communicative competence

The remaining six student attributes are addressed through the contextual questionnaires.

Table 22: *Student Attributes Measured in Reading Literacy*

Student Attributes
Knowledge and understanding – The ability to acquire the basic concepts of literacy in order to fulfil student's potential and adapt intelligently to challenges and contribute to society. A literate citizen demonstrates the following knowledge and understanding competencies. • Reads with deep understanding of texts in order to gain information about personal, • local, and global issues and also to appreciate various literary traditions. • Extracts relevant information from texts to draw appropriate conclusions. • Interprets and applies information read in texts to solve problems and issues at the • personal, local, and global levels. • Makes connections and transfers learning from one situation to another.
Intellectual competence – The ability to apply critical thinking, problem-solving, and innovative skills to generate new possibilities, and to create new ideas or knowledge. A literate citizen demonstrates the following competencies. • Uses information read to create new knowledge. • Evaluates facts and opinions critically to understand issues. • Identifies and analyses information critically, in order to solve real-life and complex problems. • Evaluates arguments from various sources critically and draws appropriate conclusions. Reflects on texts to draw inferences and form appropriate judgements.
Communicative competence – The ability to express opinions and understand complex issues through mastery of English language. A literate citizen demonstrates the following communicative competencies. • Summarises concepts and information read. • Evaluates information and opinions read through appropriate social and cultural lenses. • Correctly applies verbal and written instructions, procedures and other information. • Analyses, clarifies and interprets complex information and issues effectively.

4.7 Measurable Learning Outcomes

Due to the limitations of pencil-and-paper based large scale assessment, it is not possible to measure all the learning outcomes defined in the national curriculum. Therefore, the learning outcomes are reviewed and only objectively measurable ones are selected. In order to ensure that the assessment provides an opportunity for all students to demonstrate their ability, appropriate learning outcomes from two grade levels below and two grade levels above each of the identified grades (grades III, VI and IX) are reviewed and included, ex., the learning outcomes for grade VI assessment include learning outcomes from grade IV to VIII.

Table 23 shows the list of measurable learning outcomes selected for Reading Literacy at grades III, VI and IX.

Table 23: *Measurable Learning Outcomes for Reading Literacy (Grades III, VI and IX)*

Grade III	
GIR1	Use meaning, structure and visual cues to read new text
GIR2	Expand their bank of known words to read simple texts
GIR3	Recognize new words using meaning, structure and visual cues
GIIR4	Identify simple rhyming words, end rhymes and internal rhymes in poetry
GIR5	Read stories, poems, nursery rhymes and songs that introduce students to people, objects and events beyond their immediate environment
GIIR6	Locate and report information from the text
GIIIR7	Identify the main idea of a short text
GIVR8	Read stories and poems about subjects outside their personal experience
GIVR9	Read non-fiction texts descriptions of the natural world and explanations of natural phenomena – for knowledge and information
GVR10	Read fiction and non-fiction texts for explicit and implicit meanings, particularly texts dealing with themes of friendship, cooperation, loyalty, and courage among others
GVR11	Employ textual features such as subtitles, diagrams, charts and graphs to help them make meaning with non-fiction texts
Grade VI	
GIVR1	Read stories and poems about subjects outside their personal experience
GIVR2	Read non-fiction texts – descriptions of the natural world and explanations of natural phenomena – for knowledge and information
GVR3	Read fiction and non-fiction texts for explicit and implicit meanings, particularly texts dealing with themes of friendship, cooperation, loyalty, and courage among others
GVR4	Employ textual features such as subtitles, diagrams, charts and graphs to help them make meaning with non-fiction texts
GVIR5	Read various kinds of formal writing – business letters, applications, and invitations and know their different purposes
GVIR6	Recognize the difference between fact and opinion in newspapers
GVIR7	Distinguish points of view (first-person narrator, third-person narrator)

GVIR8	Identify figurative language in texts – simile, metaphor, personification and onomatopoeia
GVIR9	Identify the elements of short stories – setting, characters, plot and theme
GVIIR10	Recognise denotative and connotative meanings of words in texts
GVIIR11	Recognise the music in poetry achieved by rhyme and rhythm, alliteration, and assonance
GVIIIR12	Recognize the emotive effect of words in the texts they read
Grade IX	
GVIIIR1	Identify the features of a variety of texts and use them to support their reading
GVIIR2	Recognize the denotative and connotative effects of words in the texts they read
GVIIIR3	Recognize the emotive effect of words in the texts they read
GIXR4	Utilise the features of literary texts to help them understand the ideas they encounter in the texts they are reading
GIXR5	Evaluate the point of view of the writer on issues like right and wrong, justice and injustice in literature
GXIR6	Analyse how authors achieve their effects using linguistic, structural and presentational devices – points of view, figurative language, flashback, parallel argument, symbols and image patterns - and use this information to help make meaning with the text

CHAPTER 5: ENGLISH WRITING LITERACY

5.1 Introduction

This chapter sets the framework for the assessment of English Writing Literacy domain for grades VI and IX. Grade III is excluded from the Writing Literacy domain. It is deemed more appropriate to assess Writing Literacy of students at higher grades as younger students require more time to develop the skills assessed in this domain. Typically, Writing Literacy is assessed only at higher grades in large scale assessments.

Initially, Writing Literacy will be assessed only in grade VI. Depending upon the relevance and reliability of the data gathered, assessment may be extended to grade IX in subsequent cycles. This framework, however, describes the Writing Literacy domain for both grades VI and IX. The Language strand (grammar) will also be assessed in this domain.

This chapter first discusses the importance of Writing Literacy followed by the definition of Writing Literacy, organisation of the domain, assessing the domain, assessing the 21st Century Competencies and the measurable learning outcomes.

5.1.1 Importance of Writing

As per the National English Curriculum Framework PP-XII (REC, 2013, p. 10), the importance of writing is described as..

"Writing is more than creating a record of discovery and accomplishment. It is also a way of thinking and learning. It is a process with which thoughts are refined and the language in which they are written made more precise. The writing process allows the writers to explore ideas and keep track of the explorations on paper."

The curriculum framework further describes the various purposes for which writing is used throughout life. Writing can be used for personal purposes such as communicating one's thoughts in a journal, diary, etc., and for transactional purposes such as, conducting business, which entail a more formal kind of writing and finally, writing for creative purposes such as writing poems and stories.

Like reading, writing is also considered a foundational skill in the 21st century as it is considered crucial for future learning and for an individual's full participation in economic, political, and social life as an adult.

5.2 Defining Writing Literacy

The objective of this assessment is to go beyond the curriculum to evaluate students' ability to utilise their knowledge and skills to become contributing citizens and to successfully integrate and participate in the society. Therefore, this assessment takes the "literacy" approach following international best practices in assessments such as PISA. The "literacy" concept goes beyond the knowledge, understandings, and skills inherent in each learning domain. It encompasses the ability to acquire and apply such knowledge and skills.

The definition of Writing Literacy is as follows:

Writing Literacy is the ability of an individual to construct meaning by generating texts to fulfil personal and social needs and be a contributing member of the society.

Writing Literacy…

The term "Writing Literacy" is preferred to "writing" to convey the breadth of coverage. Writing Literacy goes beyond the mere forming of words. While it includes the ability to write words, it also includes skills such as generating and organising ideas, applying vocabulary, using linguistic structures, textual features, etc. The term is also intended to indicate that writing is done in a context and for a purpose.

… is the ability of an individual to construct meaning by generating texts…

Writing Literacy is an ability that students demonstrate by creating and developing meaning through words to convey ideas and information to an intended audience. The words "construct" and "generating" are used to emphasise that the ideas come from the writer.

… to fulfil personal and social needs…

Texts are created for specific purposes in particular contexts. No text is written in isolation. Therefore, Writing Literacy must comprise various contexts and purposes to reflect the authenticity of writing in real-life scenarios. This phrase must, however, be read from the perspective of the individual and understood in that context. For instance, writing for personal needs could include writing stories and writing for social needs could include writing editorials, letters, etc.

… be a contributing member of the society.

It is important to understand the significance of Writing Literacy not just from the perspective of the individual but also from the perspective of society at large. This phrase is intended to convey that Writing Literacy is essential for a citizen to be able to meaningfully engage with society and contribute to its progress.

5.3 Organisation of the Domain

The Writing Literacy as a domain comprises tasks requiring students to construct their responses. It is described in terms of contexts, text types, and writing sub-skills.

5.3.1 Contexts

Writing Literacy encompasses various purposes and contexts in which writing takes place. As the contexts in which texts are created are likely to be the same as those in which they are read, the same contexts that have been defined for the Reading Literacy domain are appropriate for this domain. Appropriate representation of each category is ensured. Descriptions of the different contexts for Writing Literacy domain are provided below.

Personal context has an individual focus. The primary audience for such texts is the author himself/herself and include topics such as personal health, personal transport, or travel. Writing tasks that fit personal context include those that are primarily for personal expression, enjoyment, or reflection, such as writing a story or a diary.

Local context has an interactive focus requiring engagement with other individuals or with elements of the community, including the nation. This type of context involves day-to-day situations and activities at home, school, local community, and the country where the focus of thought and action lies in connections and interactions with people or objects with which the students are familiar. Writing texts that reflect local context include a letter from a friend, a school timetable, or a description of one's hometown or the country.

Global context has an external focus on broader situations that may affect whole communities or countries or have an even wider, global relevance. Tasks fitting this context type include those dealing with broad social issues such as public policy, transport systems, environment, or advertisements. Writing texts that reflect a wider-world context include formal letters or essays on global issues such as the environment.

5.3.2 Text Types

In this assessment, students are asked to respond to a single cluster of tasks. Each cluster consists of two or three tasks. Each task, in turn, requires students to develop a type of text from the five types listed below, all of which are included in the national English curriculum. The number of tasks in a cluster depends on the time taken for each task and the difficulty level of each task. All the clusters have a similar level of difficulty and are alloted the same amount of time. The difficulty level of tasks and the time to be alloted are based on the data from the piloting.

Imaginative texts present and develop characters, events and themes, and deal with questions relating to *when,* or in *what* sequence. Examples of imaginative writing are short stories, plays, comic strips, etc.

Since the ability to write poems requires additional skills, students are asked to write poems in this assessment.

Descriptive texts present information about concrete objects like people, places, or items or abstract concepts or constructs these kinds of texts present details on *what* and *how* questions. Description includes forms of writing sometimes referred to as an "exposition". Examples of descriptive texts include describing a person, place, plant, problem, feeling, a phenomenon, or a label for an image.

Persuasive texts deal with opinions and points of view and are used to persuade the reader. They address some of the *which* and *why* questions. Examples of persuasive texts are a letter to an editor, a book review, an advertisement, a job application, and a discussion of the benefits or disadvantages of a certain public policy.

Instructional texts explain what to do in order to complete a specified task, and thus address some of the *how* and *when* questions. Examples of instructional texts are giving directions to find a location, listing materials and steps required to make an object, and explaining what to do in an emergency.

Transactional texts aim to achieve a specific purpose involving an exchange of information between two or more parties, such as arranging for something to be done. Transaction is represented by writing tasks such as a message to a friend or correspondence related to the delivery of goods.

5.3.3 Writing Sub-skills

The Writing Literacy comprises the sub-skills as defined below which are used as criteria for assessment.

Table 24: *Sub-skills in Reading Literacy*

Codes	Sub-skills	Descriptions
WS1	**Generate ideas**	Writing tasks typically require creation, selection, and crafting of ideas. The quantity and quality of ideas and their appropriateness for the task are constituents of this skill. The nature of ideas vary from one text type to another. For example, in story writing (narrative), strong characterisation and storyline are important. In persuasive writing, the logic, relevance, and persuasiveness of argument are important, as it is the ability to maintain critical distance. In descriptive writing, completeness of the description, salience of details included, and precision and richness of the picture created for the reader are all important.

WS2	**Control text structure and organisation**	Different text types have different structures. Effective writers have knowledge of the structural features of texts and select a suitable organisational form for the writing task. For example, if writing a recipe, the writer will start with a set of ingredients, and then describe or list a sequence of steps. If writing a narrative, conventionally, the writer will start with an orientation, follow this with a complication, and end with a resolution. They will also know what to include in each of these sections. For example, the orientation will introduce main characters and establish the setting.
WS3	**Manage coherence**	Good writers can structure texts in such a way that the links between ideas are clear to the reader. Coherence is achieved through a logical progression of ideas that express meaning consistent with the reader's general world knowledge, as well as through syntactic features such as reference, and lexical features such as discourse markers and connectives. Good writers make use of paragraphing to group ideas around a central topic or use other graphical means such as headings to indicate the relationship between ideas.
WS4	**Vocabulary and spelling**	Writing involves not just knowledge of words but also an understanding of how they can be used in specific contexts. Good writers can draw on a wide range of vocabulary to present ideas precisely and concisely. They choose words that are appropriate for the purpose, audience, and context. A wide range of vocabulary allows writers to present arguments effectively, and to give life to images in descriptive or narrative writing.
WS5	**Control syntax and grammar**	Writers need to understand implicitly how the rules of grammar govern the way words are put together to form phrases, clauses and sentences. Good writers produce grammatically correct meaningful sentences and make use of a range of syntactic structures. They link ideas with a variety of cohesive devices and use sentence structures appropriate to the writing task.
WS6	**Handwriting**	Handwriting is considered as it contributes to reading fluency and presentation.

Each process is assessed using various criteria that depend upon the task and the text type. The criteria is operationalised using rating scales which may be dichotomous (0, 1) or may have multiple categories. Each category in each criterion is a score point and can be considered an "item".

Table 25 illustrates the approximate weighting for each sub-skills across the whole set of tasks. In order to achieve these approximate weightings, every task may not be assessed on all the criteria but only on the most relevant ones.

Table 25: *Weighting of Sub-skills in Writing Literacy*

Sub-skills	Grade VI	Grade IX
Generating ideas	15-25%	15-25%
Controlling text structure and organisation	10-20%	10-20%
Managing coherence	15-25%	15-25%
Vocabulary and spelling	10-20%	10-20%
Controlling syntax and grammar	25-30%	25-30%
Handwriting	0-5%	0-5%

Controlling syntax and grammar are given the maximum weighting as the learning outcomes from the Language (grammar) strand are included under this sub-skill. Handwriting is given the least weighting as students would have developed adequate handwriting skills at these grades.

3.4 Assessing the Domain

Similar to the Reading Literacy, the test instruments of Writing Literacy constitute various contexts with varying sub-skills. The items are presented in two broad formats – Multiple Choice Questions (MCQ) and Constructed Response Tasks (CRT). A sufficient number of items are developed to ensure that a proficiency scale can be generated.

5.4.1 Item Format

CRTs are either open or closed type. Each task has a rubric attached to it and are used to assess various sub-skills. Every sub-skill may not be assessed in every task as it may not be appropriate to do so.

The sub-skills are reflected as criteria in the rubric. Under each criterion, various levels or categories are described. These are the score points and act as the items for the domain. The number of categories in each criterion may vary. Some may be dichotomous (0 or 1), for instance, handwriting will only be scored as legible or illegible. Other criteria may have up to five or six categories. The number of categories for a criterion depends on the number of defined and distinguishable categories into which student responses can be divided.

Each writing task may not be judged on the same criteria. Various tasks will be judged on several parameters but not necessarily all the criteria. For example, a creative writing task may be judged on the quality of ideas generated, vocabulary used, cohesiveness, and structure. Another descriptive task may include generating ideas, handwriting, spelling, grammar, and cohesiveness as criteria to judge

student writing. The specific criteria to be included for a particular writing task must be discussed and decided at the time of item development.

At this stage, all criteria are applicable to the selected grade levels and, therefore, act as link items to generate a single proficiency scale for both the grades.

5.4.2 Item Difficulty

It is important for an assessment of this nature to include a broad range of writing tasks which will give students at various ability levels the opportunity to attempt a task and express themselves. Therefore, items developed must spread across different levels of difficulty. Item review and pilot data must be used to ensure that a sufficient number of items from an appropriate spread of difficulty levels are included in the assessment.

5.5 Assessing 21st Century Competencies

The Bhutan Education Blueprint 2014-2024 articulates the Nine Student Attributes that indicate the quality of learning, individually or collectively. Accordingly, in NEA, the 21st Century Competencies assessed are in the context of Nine Student Attributes.

Typically, assessment instruments focussed on the cognitive domain are not the best instruments to measure values and attitudes (MoE, 2014). Similarly, the limitations of pencil-and-paper tests such as the NEA cannot measure all the Nine Student Attributes. Therefore, knowledge and competency related attributes that are assessed in Writing Literacy are:

1. Knowledge and understanding
2. Intellectual competence
3. Communicative competence

The remaining six student attributes are addressed through the contextual questionnaires.

Table 26: *Student Attributes Measured in Writing Literacy*

Attributes
Knowledge and understanding – The ability to acquire the basic concepts of literacy in order to fulfil students' potential and adapt intelligently to challenges and contribute to society. A literate citizen demonstrates the following knowledge and understanding competencies while writing. • Shows understanding of personal, local and global issues. • Uses different literary forms and techniques appropriately. • Conveys ideas in an articulate manner taking into account the audience. • Discusses complex issues with deep understanding at the personal, local, and global levels.
Intellectual competence – The ability to apply critical thinking, problem-solving, innovative skills to generate new possibilities, and to create new ideas or knowledge. A literate citizen demonstrates the following competencies while writing. • Applies prior knowledge and information in an innovative manner to create new knowledge. • Uses reasoning skills to provide solutions to complex real-life problems. • Links relevant information from various sources in an appropriate manner to create new knowledge and innovative solutions. • Develops arguments using relevant information and with deep understanding of the issues. • Evaluates ideas critically to draw relevant conclusions. • Generates imaginative texts using various literary techniques and in different literary forms.
Communicative competence – The ability to express opinions and understand complex issues through mastery of English language. A literate citizen demonstrates the following communicative competencies while writing. • Reformulates concepts and information in a manner appropriate to the audience. • Expresses opinions with appropriate elaboration. • Discusses issues and solutions in order to contribute to inter-personal, local, or global discourses. • Analyses, clarifies, and interprets complex information and issues effectively and responds appropriately. • Exhibits the skills appropriate to influence readers.

5.6 Measurable Learning Outcomes

Since it is not possible to measure all the learning outcomes defined in the national curriculum, the learning outcomes are reviewed and only objectively measurable ones are selected. In order to ensure that the assessment provides an opportunity for all students to demonstrate their ability, appropriate learning outcomes from two grade levels below and two grade levels above each of the identified grades (grades VI and IX) are reviewed and included, ex., the learning outcomes for grade VI assessment include learning outcomes from grade IV to VIII.

Table 27 shows the list of measurable learning outcomes selected for Writing Literacy at grades VI and IX.

Table 27: *Measurable Learning Outcomes for Writing Literacy*

Grade VI	
GIVW1	Write detailed compositions based on picture sequences
GVW2	Spell correctly the words they are using
GVW3	Use punctuation – capital letters, full stops, question marks, commas, exclamation marks and quotation marks (inverted commas) correctly
GVW4	Develop ideas more effectively in longer paragraphs in which they use both simple and compound sentences
GVW5	Write using a wider variety of forms encountered in their reading including formal letters, applications, invitations and adventure stories
GVIW6	Use punctuation marks, including the use of the apostrophe for omission (contractions) and possession
GVIW7	Enhance the effectiveness of their writing with the use of figurative language – simile, metaphor, personification and onomatopoeia
GVIIW8	Write coherent paragraphs using simple, compound, and complex sentences
GVIIW 9	Take notes to prepare reports and summaries, and complete information transfer
GVIIW10	Write for a range of purposes and audiences using a variety of forms encountered in their reading including, explanations, summaries, invitations, realistic fictions, resume, reports, narrative essays and fantasy
GVIIIW11	Use punctuation and paragraphing to organise ideas
GVIIIW12	Write compositions using a range of sentence structures to achieve different effects
Grade IX	
GVIIW1	Spell correctly the words they are using
GVIIW2	Write for a range of purposes and audiences using a variety of forms encountered in their reading including explanations, summaries, invitations, realistic fictions, resume, reports, narrative essays and fantasy
GVIIW3	Write coherent paragraphs using simple, compound and complex sentences
GVIIIW4	Use punctuation and paragraphing to organise ideas
GVIIIW5	Write compositions using a range of sentence structures to achieve different effects
GVIIIW6	Use figurative language effectively
GIXW7	Write for a variety of purposes and audiences using a wider variety of forms encountered in their reading to include memoir, narrative and descriptive essays
GIXW8	Use rhetorical devices, including irony and antithesis in their writing

GIXW9	Maintain purpose and sense of audience in a piece of writing
GIXW10	Use discourse markers like "however", "therefore", "in so far as" to achieve cohesion in their writing
GIXW11	Select and use diction appropriate to the writing task
GXW12	Write for a variety of purposes and audiences using a wider variety of forms encountered in their reading to include expository essays, letters of application and resumes
GXW13	Write reports on assigned and self-selected topics
GXIW14	Write a short story in which they show control of the elements of the short story form
GXIW15	Write a persuasive essay in which they show understanding and control of the elements of the different essay forms
GXIW16	Demonstrate that they can make fine distinctions in grammar and diction to achieve precision in their writing
GXI W17	Recognise and apply in their writing, the features of short stories and argumentative essays

Table 28 shows the list of measurable learning outcomes selected for Language Strand at grades VI and IX.

Table 28: *Measurable Learning Outcomes for Language Strand*

Grade VI	
GIV G1	Use direct and indirect speech. Identify some parts of speech (noun, verb, adjective, preposition) and the definite and indefinite article in the texts they are reading and writing
GIVG2	Use simple word order: subject – verb – object in simple sentences
GIVG3	Use subject-verb agreement correctly
GIVG4	Use punctuation marks (full stop, question mark, exclamation mark, comma) in their writing
GIVG5	Use capital letters for the beginning of sentences and for proper nouns
GIVG6	Use subject-verb agreement correctly
GIVG7	Use punctuation marks (full stop, question mark, exclamation mark,comma)
GVG8	Use direct and indirect speech
GVG9	Use word order (article – subject-verb – adjective – object) in longer sentences correctly
GVG10	Use the degrees of comparison (positive, comparative and superlative) of adjectives
GVG11	Use the progressive/continuous forms of tenses (continuous present, continuous past, continuous future)

GVG12	Tell the infinitive, simple past and past participle of regular verbs (play, played,played)
GVIG13	Construct complex sentences, which contain one main (principal) clause with a subordinate clause
GVIG14	Use question tags
GVIG15	Use compound tenses: present perfect and past perfect
GVIG16	Use possessive pronouns
GVIIG17	Use active and passive voice
GVIIG18	Use phrasal verbs correctly
GVIIG19	Use prepositions correctly
GVIIIG20	Use some conjunction coordinators and correlatives (either… or; neither… nor; not only… but also) correctly
GVIIIG21	Use the continuous forms of the compound tenses (present perfect, past perfect and future perfect)
GVIIIG22	Distinguish among the moods – indicative, imperative, interrogative, subjunctive
Grade IX	
GVIIG1	Use possessive pronouns appropriately
GVIIG2	Use question tags correctly
GVIIG3	Tell the parts of commonly used regular and irregular verbs
GVIIG4	Use simple, compound and complex sentences
GVIIG5	Use articles correctly
GVIIG6	Use active and passive voice
GVIIG7	Change from direct to indirect speech and vice-versa correctly
GVIIG8	Show how the meanings of words are changed by adding prefixes and suffixes to root words
GVIIG9	Use phrasal verbs correctly
GVIIG10	Use punctuation marks and question tags appropriately
GVIIG11	Use prepositions correctly
GVIIIG12	Use relative pronouns appropriately
GVIIIG13	Use some conjunction coordinators and correlatives (either… or; neither… nor; not only… but also) correctly

GVIIIG14	Use idiomatic expressions in appropriate contexts
GIXG15	Use modal auxiliaries (can, could, should, must, may and might) to indicate a shift in mood
GIXG16	Use indefinite pronouns appropriately
GIXG17	Use periodic sentences correctly Use a wider range of discourse markers correctly including "however", "in so far as", "therefore", "henceforth"
GIXG18	Use conjunction coordinators and correlatives (hardly… when; scarcely… when; no sooner… than) correctly
GXG19	Use gerunds and participles appropriately
GXG20	Use phrasal verbs appropriately
GXIG21	Know and use transitive and intransitive verbs appropriately
GXIG22	Use literal and figurative language appropriately

CHAPTER 6: MATHEMATICAL LITERACY

6.1 Introduction

Mathematical Literacy has two major components – fluency in mathematical procedures, and the ability to apply mathematical knowledge in solving problems in a variety of contexts. Towards achieving these components, students need to be equipped with competencies comprising logical reasoning, modelling, problem solving, interpreting, communicating the solution in the context of a problem setting using symbolic and mathematical representations.

The Bhutan Education Blueprint 2014-2024 emphasises equipping students with knowledge, skills, values, and attitudes to become socio-economically productive citizens and confidently cope with global challenges (MoE, 2014).

To realise these aspirations, the goals set for mathematics education in Bhutan are as follows:

- achieve mathematical competencies required in a GNH-society;
- understand various mathematical concepts and procedural skills;
- explore a variety of strategies in problem solving;
- think and reason logically;
- understand the value of mathematics and its usefulness;
- nurture confidence in their own mathematical ability;
- encourage a continuing interest in mathematics;
- build foundation to pursue higher studies in mathematics; and
- foster the development of mathematical talent.

The NEA measures the attainment of mathematical literacy at critical stages of learning to provide reliable information on the quality of mathematics education. Further, it helps in framing relevant policies for timely interventions aimed at supporting the development of students' mathematical literacy.

This chapter lays down a comprehensive framework for the assessment of Mathematical Literacy at grades III, VI, and IX comprising sections – Defining Mathematical Literacy, Organisation of the Domain, Defining Mathematical Competencies, Assessing the Domain, Assessing the 21st Century Competencies, and Measurable Learning Outcomes.

6.2 Defining Mathematical Literacy

Mathematics is defined as a logical way of studying numbers, shapes, and spaces with the help of a system of symbols and rules to organise them. Another way to define it is, as the study of structure, order, and relation, which develop gradually from the practices of counting, measuring, and describing objects. These practices provide the prerequisite mathematical language and tools to investigate and explore the world we live in.

There are two branches of mathematics. The first one is a discipline that can be studied for its intrinsic pleasure, and the other, to explore, understand and communicate with the world around us. However, both are connected by the same mathematical body of knowledge. In this framework, this knowledge is interpreted in terms of mathematical literacy.

Mathematical Literacy is defined as an individual's capacity to formulate, apply and interpret mathematics in a variety of contexts. It includes reasoning mathematically and using mathematical concepts, procedures, facts, and tools to describe, explain, and predict a solution. It assists individuals to recognise the role mathematics plays in the world and to make well-founded judgments and decisions as constructive, engaged, and reflective citizens.

Mathematical Literacy…

The term Mathematical Literacy is used to emphasise that the focus is on acquiring mathematical knowledge and skills, understanding of mathematical concepts and principles, developing a logical way of thinking, and using mathematical knowledge and skills to solve problems.

… is an individual's capacity to…

In order to solve problems, certain basic competencies are required. These competencies include capacity to utilise mathematical concepts, devise strategies, mathematise, represent, reason and argue, and communicate using mathematical symbols and tools.

… in formulating, applying and interpreting mathematics…

The process of completing a task involves mathematical competencies of formulating, applying and interpreting mathematical concepts, procedures, and skills.

Formulating refers to understanding a given task and converting it into a mathematical structure.

Applying refers to using mathematical competencies to complete the given task.

Interpreting refers to skills and procedures in analysing and reflecting upon mathematical facts, solutions, or conclusions, in context of the presented task and determining whether the result(s) or conclusion(s) are reasonable and/or useful.

…in a variety of contexts…

Mathematics can be learnt and applied in a variety of contexts – personal, local, global, and intra-mathematical. These contexts help students understand, transfer mathematical knowledge, and appreciate the role of mathematics in a broader sense.

…includes reasoning mathematically…

Mathematical reasoning is the critical skill that enables a student to make use of all other mathematical skills. It involves logical and systematic thinking to arrive at solutions to problems set in the four types of contexts stated above, through patterns and structures, and the ability to justify the solution.

…using mathematical concepts, procedures, facts, and tools...

Problem solving requires using the most appropriate mathematical concepts, procedures, and tools to arrive at solutions to problems set in a variety of contexts.

…to describe, explain, and predict a solution.

The ultimate use of mathematical knowledge and skills is to understand a problem and to either predict or show a solution to problems set in context.

6.3 Organisation of the Domain

The Mathematical Literacy domain includes the following four aspects:

Table 29: *Aspects of Mathematical Literacy*

Aspects	Description
Content	Mathematical knowledge and skills
Context	Situations in which a task can be set
Cognitive processes	Metacognitive skills required to complete a task
Mathematical competencies	Fundamental qualities that underpin Mathematical Literacy

6.3.1 Content

This refers to the specific mathematical knowledge and skills required to complete a task. The content areas provided in the Naional Mathematics Curriculum Framework form the basis for deciding the content aspect of Mathematical Literacy. The content has five content strands:

i. Number and operations
ii. Patterns and algebra
iii. Geometry
iv. Measurement
v. Data management and probability

However, for the NEA, the first two strands are combined to form the 'Number and algebra' strand, considering the overlap and interrelation between the content strands that enriches the study of each other. In lower grades, algebra focuses on pre-algebraic concepts which can be combined with number and operations. Therefore, for the purpose of NEA, the Mathematical Literacy content is divided into four strands:

i. Number and algebra
ii. Geometry
iii. Measurement
iv. Data management and probability

Number and algebra: To make sense of the world around us in terms of mathematics, quantification is required. Numbers are fundamental to quantification, and different types of numbers add precision in different ways – whole numbers can serve as counters or estimators, and fractions and decimals add to the accuracy of the measurement. Positive and negative numbers act as directional indicators, and percent and ratio aid comparisons. Additionally, numbers can be used to put things in order and as identifiers (ex., telephone numbers or zip codes).

Algebra enables a person to recognise, interpret, and create patterns to understand the world better. The pre-algebraic concepts, for example, identifying missing numbers or relationships in simple numeric and geometric patterns, are developed in the primary grades. As students progress from primary grades to higher grades, they build on their understanding of the number system to describe relationships and formulate generalisations. They recognise equivalence and solve equations and inequalities. They apply the concept of numbers and the four fundamental operations (+, –, x, ÷) with an increasing degree of complexity and levels of learning, and algebra skills, to conduct investigations, solve problems, and communicate their reasoning.

The Number and algebra strand is further divided into subsections – whole numbers, fractions and decimals, integers, rational numbers, and patterns and algebra. The proportional coverage of this strand is higher in grades III and VI. The approximate weighting for this strand based on the curriculum coverage at each grade level is given in Table 30.

Table 30: *Weighting of Number and Algebra Across the Grades*

Grades	Approximate weighting
Grade III	55-65%
Grade VI	45-55%
Grade IX	35-45%

Geometry: The study of shapes, spaces, and spatial relationships is an important and essential branch of mathematics. Shape is a category describing real images and entities that can be visualised in both two and three dimensions, ex., man-made things like buildings, vehicles, art and craft, or natural things like snowflakes, shadows, and plants. Direction and location are fundamental qualities which are called upon when reading, interpreting, or sketching maps and diagrams.

Geometry is a formal study of shapes and their characteristics and relationships. Through the course of the study, students develop an increasingly sophisticated understanding of size, shape, position, and movement in two and three dimensions. Understanding of basic geometrical concepts deepens with the analytical study of parallelism, perpendicularity, and angle relationships.

As students progress, they start applying their knowledge and understanding to establish relationships between various attributes in shapes and apply them in systematically solving problems. The curriculum coverage of Geometry content in primary grades is less in comparison to the secondary grades. The approximate weighting for this strand based on the curriculum coverage at each grade level is given in Table 31.

Table 31: *Weighting of Geometry Across the Grades*

Grades	Approximate weighting
Grade III	10-20%
Grade VI	15-25%
Grade IX	15-25%

Measurement: It is a tool to quantify things around us. This content area requires an understanding of the units of measures and the systems of measurement, both non-formal and formal, such as the metric and the imperial systems. A basic task in this fundamental aspect could be measuring a given quantity, whereas a complex task might involve describing change in the capacity of an object when one dimension is changed.

In the mathematics curriculum, students begin by learning about measurable attributes of objects and proceed from the non-standard to standard units of measurement. Gradually, the concepts of length, mass, temperature, time, area, and volume are learned. Students also build an understanding of connections between the different units of measures and calculate derived measures such as area, speed, and density.

The approximate weighting for this strand based on the curriculum coverage at each grade level is given in Table 32.

Table 32: *Weighting of Measurement Across the Grades*

Grades	Approximate weighting
Grade III	10-20%
Grade VI	10-20%
Grade IX	15-25%

Data management and probability: In data management statistics, students collect, recognise, organise, and then draw inferences from the data. They learn to represent, summarise, and interpret data and undertake purposeful investigations involving collection and interpretation of data. In probability, they assess likelihood and assign probabilities using experimental and theoretical approaches. Gradually, students develop sophisticated abilities to critically evaluate data and probability concepts and make reasoned judgements and decisions. Since the two components – data management and probability – are developed in parallel, they are combined under a single strand of Data management

and probability. Coverage of Data management and probability in primary grades is less than the secondary grades.

The approximate weighting for this strand based on the curriculum coverage at each grade level is given in Table 33.

Table 33: *Weighting of Data Management and Probability Across the Grades*

Grades	Approximate weightage
Grade III	5-15%
Grade VI	10-20%
Grade IX	15-25%

Detailed categorisation ensures adequate coverage of mathematical learning outcomes as specified in the Mathematics Curriculum Framework. It is also designed to include tasks of different complexities for students across a wide range of proficiency levels.

The distribution of the assessment tasks of different content areas is proportional to the content weighting in the curriculum. However, in real life, it has to be understood that problems do not necessarily fall neatly into one content category. How a student as a problem solver, chooses knowledge, skills, and procedures appropriate to the problem that combines aspects of different content areas would reflect the general mathematical literacy of the student.

6.3.2 Context

In mathematics, the context is the aspect of an individual's world in which the problems are placed (OECD, 2021). It stimulates the task in which mathematical thinking can be assessed. The purpose of defining the contexts is to ensure that the NEA contains a variety of stimulus materials to assess mathematical literacy. It is assessed through four contexts – personal, local, global, and intra-mathematical. However, these are not isolated and are often found to overlap eachother.

Personal context has an inward focus, i.e., context is set around individual experiences, and all interactions that affect the individual, such as, money transactions in buying and selling of commodities, personal travel, etc.

Local context pertains to tasks that require engagement with other individuals or with elements of the surrounding environment. It can be a setting at home or in the school, community, or the nation at large.

Global context requires students to go beyond their actual experiences and understand effects on larger communities or communities as a whole. Such context requires students to go beyond the physical world and develop a degree of abstractness to respond to the tasks. For example, the height or structure of famous buildings, population, national, or regional economic problems, etc.

Intra-mathematical context does not have any specific context and is set within the Mathematical Literacy domain itself. As procedural fluency is considered one of the important skills in school mathematics, some contexts in NEA are purely mathematical.

6.3.3 Cognitive Processes

The definition of mathematical literacy refers to an individual's capacity to formulate situations mathematically, apply mathematical concepts, facts, procedures and skills to interpret, reason and evaluate mathematical outcomes or results. For the purpose of the NEA, tasks are set with a focus on any of the three mathematical processes mentioned below:

i. **Formulating** refers to the process of providing a mathematical structure to a real-life problem. It indicates ability to recognise and identify opportunities to use mathematics in a given situation and then provide the necessary mathematical structure needed to translate the given task into the mathematical world.

ii. **Applying** refers to the process of using mathematical concepts, facts, and procedures to perform computations/manipulations and to arrive at a mathematical solution for a given task.

iii. **Interpreting** refers to the process of reasoning and reflecting upon mathematical solutions or conclusions, understanding them in the context of a problem, and determining whether the result(s) or conclusion(s) are reasonable and/or useful.

A student's capacity to apply mathematics to problems set in various contexts is dependent on competency inherent in all three of the above processes.

6.3.3.1 Formulating Situations Mathematically

In order to solve mathematical tasks successfully, a number of cognitive processes must be put together. Basic among them are the student's ability to recall rules and formulae and recognise patterns, use language to understand vocabulary, instructions, and explain their thinking, and use sequential ordering to solve multi-step problems and use procedures. Other than these, students need to learn to use spatial ordering to recognise symbols and deal with geometric forms.

In Mathematical Literacy, "formulate" refers to the process of converting a given task into mathematical language. The task is transferred from a real-world setting to the domain of mathematics and converted into mathematical structures, representations and specificity, bearing in mind the considerations and assumptions given in the task.

The tasks that fall under formulating situations mathematically can be:

- recognising and recalling definitions, number properties, units of measurement, geometric properties, and notations in a given task;
- selecting an appropriate model from a list;
- classifying and ordering numbers, expressions, quantities, and shapes by common properties;
- identifying the mathematical aspects of a problem situated in a real-world context and identifying the significant variables;
- representing a situation mathematically, using appropriate variables, symbols, diagrams, and standard models;
- retrieving information from graphs, tables, texts, or other sources;
- representing a problem in different ways by organising it in accordance to mathematical concepts;
- recognising aspects of a problem that correspond to known problems or mathematical concepts, facts, or procedures;
- choosing among an array of the most effective computing tools to portray mathematical relationship inherent in a contextualised problem; and
- creating an ordered series (step-by-step) of instructions for solving problem.

6.3.3.2 Applying Mathematical Concepts, Facts, and Procedures

Applying refers to a student's ability to use knowledge and conceptual understanding to solve a problem. Successful problem solving involves the process of coordinating previous experiences, knowledge, and intuition in an effort to determine an outcome of a situation for which a procedure for determining the outcome is not known (Lester, 1987). This skill focusses on students' ability to use mathematics as a tool in familiar situations and routine problems.

In the Mathematical Literacy definition, "apply" refers to the competency of using mathematical concepts, facts, procedures, and reasoning to solve mathematically-formulated problems in order to obtain mathematical conclusions. In the process of applying mathematical concepts, facts, procedures, and reasoning to solve problems, individuals perform the mathematical procedures required for finding a mathematical solution (ex., performing arithmetic computations, solving equations, performing symbolic manipulations, extracting mathematical information from tables and graphs, representing and manipulating shapes in space, and simple analysis of data).

The tasks which involve this process of applying can be:

- performing a simple calculation;
- drawing a simple conclusion;
- selecting an appropriate strategy from a list;
- devising and implementing strategies for finding mathematical solutions;
- using mathematical tools, including technology, to help find exact or approximate solutions;
- applying mathematical facts, rules, algorithms, and structures when finding solutions;
- manipulating numbers, graphical, and statistical data and information;
- applying algebraic expressions and equations, and geometric representations;
- developing mathematical diagrams, graphs, simulations, and constructions, and extracting mathematical information from them; and
- using and switching between different representations in the process of finding solutions.

6.3.3.3 Interpreting, Reasoning, and Evaluating Mathematical Outcomes

Reasoning is a logically rooted thought process that explores and links problem elements to make inferences from them, checks a given justification, or provides a justification (Turner, 2010). Reasoning mathematically involves logical and systematic thinking. It includes intuitive and inductive reasoning based on patterns and regularities that can be used to arrive at solutions to problems set in a novel or unfamiliar situations. Such problems may be purely mathematical or may have real-life settings.

The word "interpret" used in the Mathematical Literacy definition focuses on the ability of individuals to reflect upon mathematical solutions, results, or conclusions and interpret them in the context of the real-life problem that initiated the process. It involves reasoning with the mathematical solution in the context of the problem and also evaluating the reasonableness of the solution or processes. Interpreting, reasoning, and evaluating mathematical outcomes encompass both "reason" and "evaluate" elements of the mathematical modelling cycle. Individuals engaged in this process may be called upon to construct and communicate explanations and arguments in the context of the problem, reflecting on both modelling process and its results. This process includes activities such as:

- determining, describing, or using relationships among numbers, expressions, quantities, and shapes;
- evaluating a mathematical outcome in terms of the context;
- interpreting a mathematical result back into the real-world context;
- evaluating the reasonableness of a mathematical solution in the context of a given task;

- understanding how the real-world impacts the outcomes and calculations of a mathematical procedure or model in order to make contextual judgments about how the results should be adjusted or applied;
- explaining why a mathematical result or conclusion does, or does not, make sense given the context of a problem;
- understanding the extent and limits of mathematical concepts and solutions;
- critiquing and identifying the limits of the model used to solve a problem;
- using mathematical thinking and computational thinking to make predictions, provide evidence for arguments and, test and compare proposed solutions;
- reflecting on mathematical arguments and, explaining and justifying mathematical results; and
- creating new ideas.

Table 34 shows the approximate weighting for Mathematical processes.

Table 34: *Weighting of Mathematical Processes Across the Grades*

Processes	Approximate weighting
Formulating Situations Mathematically	25 - 30%
Applying Mathematical Concepts, Facts, and Procedures	45 - 50%
Interpreting, Reasoning, and Evaluating Mathematical Outcomes	25 - 30%

6.4 Defining Mathematical Competencies

Mathematical competencies are a set of characteristics or qualities that underpin each of the three processes of Mathematical Literacy in practice, possessed to a greater or lesser extent by a student. Development of mathematical literacy will help students handle real-world challenges by making productive use of their mathematical knowledge in practical situations.

Mathematics curriculum identifies communication, mathematising, representation, reasoning, devising strategies, and using symbolic, formal, and technical language and operations, and mathematical tools as the required competencies.

MC1. Communication comprises two aspects: incoming communication and outgoing communication. Incoming communication refers to reading, decoding, interpreting statements, and mathematical information while outgoing communication refers to explaining, presenting, and arguing mathematical results.

MC2. Mathematising refers to transforming a real-world problem into a mathematical problem, i.e., interpreting mathematical objects or information in relation to the situation represented.

MC3. Representation is devising or using depictions of mathematical objects or relationships, equations, formulae, graphs, tables, diagrams, and textual descriptions.

MC3. Reasoning and argument entails developing logically rooted thought processes that explore and link problem elements to make inferences from them, or to check a given justification or provide a justification.

MC4. Strategic competence refers to selecting or devising and implementing appropriate mathematical strategy to solve problems arising from a task or context.

MC5. Using symbolic, formal, and technical language and operations, and mathematical tools refers to understanding, manipulating, and making use of symbolic expressions, using constructs based on definitions, rules and conventions, formal systems, and relevant mathematical tools including software.

6.5 Assessing the Domain

The Mathematical Literacy domain is comprised of content, context and cognitive processes underpinned by mathematical competencies. The achievement in mathematical literacy is measured through the analysis of the three mathematical processes (formulating, applying and interpreting) and related competencies. Table 35 shows the relationship between mathematical processes and the competencies that underpin these processes.

Table 35: *Relationship Between Competencies and Processes*

Processes → / Competencies ↓	Formulating situations mathematically	Applying mathematical concepts, facts, procedures and skills	Interpreting, evaluating and reasoning mathematical outcomes
Communicating (reading, decoding, interpreting statements and mathematical information, explaining, presenting, and arguing.)	Read, decode, and make sense of statements, questions, tasks, objects or images, in order to form a mental model of the situation.	Explain a solution, show the work involved in reaching a solution, and/ or summarise and present intermediate mathematical results.	Construct and communicate explanations and arguments in the context of the problem.
Mathematising (Transforming a real-world problem into a mathematical problem, interpreting mathematical objects or information in relation to the situation represented.)	Identify the under-lying mathematical variables and structures in the real-world problem.	Use the understanding of the context to guide or expedite the mathematical solving process, ex., working to a context-appropriate level of accuracy.	Understand the extent and limits of a mathematical solution that are the consequence of the mathematical model employed.
Representation (Devising or using depictions of mathematical objects or relationships: equations, formulae, graphs, tables, diagrams, and textual descriptions.)	Create a mathematical representation of real-world information.	Make sense of, relate, and use a variety of representations when interacting with a problem.	Interpret mathematical outcomes in a variety of formats in relation to a situation or use; compare or evaluate two or more representations in relation to a situation.
Reasoning and argument (Logically rooted thought processes that explore and link problem elements to make inferences from them, or check a given justification, or provide a justification.)	Explain, defend or provide a justification for the identified or devised representation of a real-world situation.	Explain, defend, or provide a justification for the processes and procedures used to determine a mathematical result or solution. Connect pieces of information to arrive at a mathematical solution, make generalisations or create a multi-step argument.	Reflect on mathematical solutions and create explanations and arguments that support, refute, or qualify a mathematical solution to a contextualised problem.

Devising strategies for solving problems (Selecting or devising, and implementing a mathematical strategy to solve problems arising from the task or context.)	Select or devise a plan or strategy to mathematically reframe contextualised problems.	Activate effective and sustained control mechanisms across a multi-step procedure leading to a mathematical solution, conclusion, or generalisation.	Devise and implement a strategy in order to interpret, evaluate, and validate a mathematical solution to a contextualised problem.
Using symbolic, formal, and technical language and operations, and mathematical tools (Understanding, manipulating, and making use of symbolic expressions, using constructs based on definitions, rules and conventions, formal systems, and using mathematical tools.)	Use appropriate variables, symbols, diagrams, and standard models in order to represent a real-world problem. Use mathematical tools in order to recognise mathematical structures or to portray mathematical relationships in symbolic/ formal language.	Understand and utilise formal constructs based on definitions, rules, and formal systems, as well as employing algorithms. Know about and be able to make appropriate use of various tools that may assist in implementing processes and procedures for determining mathematical solutions.	Understand the relationship between the context of the problem and representation of the mathematical solution. Use this understanding to help interpret the solution in context, and gauge the feasibility and possible limitations of the solution. Use mathematical tools to ascertain the reasonableness of a mathematical solution and any limits and constraints on that solution, given the context of the problem.

Note: Adapted from PISA for Development Assessment and Analytical Framework: Reading, Mathematics and Science by OECD, 2018, OECD. Copyright 2018 by OECD.

6.5.1 Item Formats

An assessment instrument for Mathematical Literacy constitutes an effective stimuli set in a relevant context that demands various levels of cognitive rigour and competencies. It is either in MCQ or CRT format. For the ease of administration and objective grading, multiple-choice testing is the prevalent form of assessment in science and humanities education (Ali, Carr, & Ruit, 2016). Considering the best international practices, it is proposed that a majority of questions in the test be MCQs. The intended proportion for different grade levels are as provided below.

Table 36: *Weighting of Item Format Across Grades*

Item Format	Grade III	Grade VI	Grade IX
MCQ	80%-85%	75%-85%	65%-75%
CRT	15%-20%	15%-25%	25%-35%

6.5.2 Item Difficulty

Research shows that learning is most likely to happen when students are given challenging tasks beyond their comfort zone. At any given point during their learning, every student is capable of progressing further if they can be engaged, motivated, and provided with relevant learning opportunities (Masters, 2013). In a particular grade level, all students may not be at the same level of learning. They may be in a range of levels with the possibility of bright students being several years ahead of the low performing students.

Therefore, to assess the students at all levels of learning, the NEA includes items across a difficulty range. The proportion of these levels of difficulty – easy, medium, and difficult – is flexible in the first cycle, and will be subsequently fixed during future cycles. For the first cycle, approximately 20-25% of test items are easy, 50-60% of items are at medium level, and the remaining 20-25% are difficult.

6.6 Assessing 21st Century Competencies

The 21st Century Competencies assessed in the NEA are in the context of Nine Student Attributes as stated in the Bhutan Education Blueprint 2014-2024. All the nine attributes cannot be assessed by a pencil-and-paper test. However, some of the attributes are assessed through cognitive instruments that enable students to exhibit them. Table 37 shows how various attributes are measured in Mathematical Literacy.

Table 37: *Student Attributes Measured in Mathematical Literacy*

Student Attributes
Knowledge and understanding – This attribute is assessed by using items focused on mathematical knowledge and understanding. It is measured through the following indicators: • recalling of information such as fact, definition, term, or a simple procedure, rules and formulae, and recognition of patterns; • formulating one-step, well-defined, and straight and simple algorithmic procedural items; • performing a well-known algorithm following a set of procedures (performing a clearly defined series of steps); • representing mathematical situations in different ways and knowing how different representations connect with each other, how they are similar, and how they are different; • retrieving information from graphs, tables, texts, or other sources; and • applying mathematical facts, rules, algorithms, and structures when finding solutions.
Intellectual competence – This attribute is assessed by using items focused on formulating, applying, and interpreting between the real-world and the mathematics world. It is measured through the following indicators: • creating a sequential order of instructions to solve multi-step problems and use procedures; • identifying the mathematical aspects of a problem situated in a real-world context and identifying the significant variables; • representing a situation mathematically, using appropriate variables, symbols, diagrams, and standard models; • recognising aspects of a problem that correspond with known problems or mathematical concepts, facts, or procedures; • choosing among an array for the most effective computing tools to portray a mathematical relationship inherent in a contextualised problem; • devising and implementing strategies for finding mathematical solutions; • using mathematical tools, including technology, to help find exact or approximate solutions; • manipulating numbers, graphical, and statistical data and information; • making mathematical diagrams, graphs, simulations, and constructions, and extracting mathematical information from them; • using and switching between different representations in the process of finding solutions; and • using relationships among numbers and different units of measurement, expressions, quantities, and shapes to mathematise problems and work out solutions.
Communicative competence – This attribute is assessed through items that require students to demonstrate mathematical communication. The aspects of communication include students' understanding and interpreting the information given in the task, and communicating the solution to others using symbolic and mathematical representations. This attribute is measured through the following indicators: • understanding and interpreting information; • explaining their interpretations of the mathematical solution in a problem context; • explaining why a mathematical result or conclusion does, or does not, make sense given the context of a problem; • using sequential ordering to solve multi-step problems and use procedures; • presenting and extracting information through mathematical diagrams, graphs, simulations, constructions, etc.; • using algebraic expressions and equations, and geometric representations; and • using mathematical language to express mathematical ideas.

Leadership Competence – This attribute includes knowledge, i.e., understanding of the discipline and of the real world and the ability to generate creative solutions. It is addressed through the items assessing the understanding of mathematical concepts and creativity in a variety of contexts.

This attribute will be measured through the following indicators:

- applying mathematical knowledge and understanding to solve problems in practical situations; and
- identifying the problem, exploring options for solutions, and reaching and generalizing results for a wider context.

World-readiness – This attribute is assessed through items based on analytical, reasoning, critical thinking, creativity, and problem-solving skills. Instruments demanding broad mathematical knowledge, skills, and cognitive demand appropriate to the stage of development are used to infer information about this attribute.

This attribute is measured through the following indicators:

- transfering mathematical knowledge to problems set in a context; and
- successfully sieving through problems and solution options using broad mathematical knowledge and skills.

6.7 Measurable Learning Outcomes

In a practical situation, it is not possible to measure all the learning outcomes prescribed in the mathematics curriculum in a single assessment. Learning outcomes are reviewed and the measurable ones are identified for the assessment of Mathematical Literacy. In order to ensure that the assessment provides an opportunity to students at different grade levels of learning to demonstrate their ability, appropriate learning outcomes from two grades below and two grades above the targeted grade are reviewed and included, ex., learning outcomes for grade VI include learning outcomes from grades IV to VIII.

Table 38 shows the list of measurable learning outcomes selected for Mathematical Literacy.

Table 38: *Measurable Learning Outcomes for Mathematical Literacy*

Grade III	
Number and Algebra	
Whole Numbers	
GIIIN1	Represent whole numbers with manipulatives, in pictorial forms, words, diagrams, number lines or symbols from 100 to 1,000,000
GIIIN2	Demonstrate knowledge of place value of 2-digit to 6-digit numbers
GIIIN3	Order and compare numbers using symbols 100 to 1,000,000
GIIIN4	Add up to 5-digit numbers with and without regrouping, including computation in simple contextual problems
GIIIN5	Subtract up to 5-digit numbers with and without regrouping, including computation in simple contextual problems

GIIIN6	Demonstrate knowledge of different addition strategies for 1 to 5 digit numbers: double, half, make ten, front-end, (adding a number from left to right) counting on, subtract 10 and compensate, balancing, using the nearest multiple of ten then compensating, partner number in simple addition subtraction problems
GIIIN7	Demonstrate the understanding of multiplication as equal grouping and repeated addition, skip counting, double facts, multiplication as array
GIIIN8	Multiply up to 4-digit by 1-digit, including computation in simple contextual problems
GIIIN9	Demonstrate knowledge of division as equal sharing and repeated subtraction and understanding of relation between multiplication and division facts
GIIIN10	Demonstrate knowledge of properties of numbers (odd or even) or operations (commutative and associative) to solve problems in simple context
Fractions and Decimals	
GIIIN11	Identify fractions as parts of a whole or part of a set; represent fractions using words, numbers, or models, including those set in problem situations (Fractions may have denominators of 2, 3, 4, 5, 6, 8, or 10)
GIIIN12	Demonstrate knowledge of decimal place value (up to tenth) including representing decimals using words, numbers, or models; compare, order, and round decimals
Patterns and Algebra	
GIIIN13	Demonstrate knowledge of different types of patterns (repeating, growing) based on size, shape, colour, attributes etc.
GIIIN14	Use understanding of patterns in context (missing number or operation in a number sentence, etc.)
GIIIN15	Identify and use relationships in a well-defined numerical and geometrical pattern
Measurement	
GIIIM1	Demonstrate the understanding of length, capacity, mass in standard and non-standard units and time using analogue clock (up to 5 minutes) and digital clock
GIIIM2	Solve problems involving length (millimetres, centimetres, meters, and kilometres), mass (gram and kilogram), volume (millilitre, litre) and calendar (days, week, month and seasons): identify appropriate types and sizes of units and read scales
GIIIM3	Demonstrate the understanding of relationships among different units of time such as minutes, hours, days, weeks, months, seasons and years
GIIIM4	Identify and compare angles based on right angle

Geometry	
GIIIG1	Identify quarter, half and full turns
GIIIG2	Identify different types of lines (parallel lines, perpendicular lines, etc.), reflection, symmetry and congruence in real world
GIIIG3	Identify common 2-D (triangles and quadrilaterals) and 3-D shapes (cube, cuboid, cylinder, cone and sphere) and their attributes
GIIIG4	Classify 2-D and 3-D shapes by their attributes
GIIIG5	Identify nets of prisms and pyramids (up to hexagon)
Data Management and Probability	
GIIID1	Read, represent and interpret data from tally charts, tables, pictographs, and bar graphs
GIIID2	Organize and represent data in tables, pictographs, and bar graphs to help answer questions (simple scales can be included)
GIIID3	Identify and describe probability in terms of impossible, unlikely, equally likely, likely and certain and by using fractions
Grade VI	
Number and Algebra	
Whole Numbers and Integers	
GVIN1	Represent whole numbers with manipulatives in pictorial form,words, diagrams, number lines or symbols up to 9 places
GVIN2	Demonstrate knowledge of place value of whole numbers up to 9 places
GVIN3	Order and compare whole numbers up to 9 places
GVIN4	Solve problems using addition, subtraction, multiplication and division of whole numbers
GVIN5	Find and use common factors of whole number up to 2-digit
GVIN6	Demonstrate the knowledge of positive and negative integers including on the number line and models
GVIN7	Demonstrate knowledge of fraction and mixed numbers using diagrams, number lines and models (grid and rectangular)
GVIN8	Order and compare fractions using different strategies (number line, reference number, etc.)
GVIN9	Add and subtract simple fractions (like and unlike fractions, proper and mixed fractions) using different strategies

GVIN10	Demonstrate knowledge of decimals using diagrams, number line, models; order and compare decimal numbers
GVIN11	Add, subtract, multiply and divide decimals with whole numbers using different strategies
GVIN12	Compute with decimals including those set in problem situations
GVIN13	Estimate the product and quotient of decimal multiplication and division
Ratio and Percentage	
GVIN14	Demonstrate knowledge of ratio as part to part and part to whole
GVIN15	Use the concept of equivalent ratios and apply it to solve problems using models and symbols
GVIN16	Demonstrate knowledge of percentage as a way to benchmark and estimation for familiar fractions
GVIN17	Demonstrate the understanding of rate by relating them to ratio
Patterns and Algebra	
GVIN18	Demonstrate the understanding of function as input/output values
GVIN19	Identify and generate patterns with whole numbers (including square and triangular numbers) and decimals
GVIN20	Demonstrate understanding of multiplication and division computation patterns and multiplicative relationship between equivalent fractions
GVIN21	Demonstrate understanding of relation between dimensions and area/perimeter/ volume
GVIN22	Write expressions and equations to represent problem situations
Measurement	
GVIM1	Measure and estimate length in SI units (mm, cm, m and km), mass in SI unit (g, kg, tonne)
GVIM2	Demonstrate understanding of relation between different SI units
GVIM3	Demonstrate understanding of angle as measure of turn; identify and draw types of angles, and triangles based on angles
GVIM4	Solve problems involving time including time intervals and elapsed time
GVIM5	Solve problems involving area and perimeter of polygons including triangles, squares, rectangles and parallelograms, use area unit as square centimetre
GVIM6	Estimate and find the volume of prisms

Geometry	
GVIG1	Solve problems using angle bisectors, parallel and perpendicular lines
GVIG2	Solve problems using geometric properties of triangles
GVIG3	Recognize and draw images of geometric transformations (flips, translations, reflections, rotations and tessellations) in the plane
GVIG4	Identify rotational symmetry and use its properties in simple geometric shapes
GVIG5	Identify and draw isometric and orthographic images of geometric shapes
GVIG6	Relate 3-D shapes (prisms and pyramids) with their 2-D representations
GVIG7	Identify planes of symmetry in 3-D shapes
Data Management and Probability	
GVID1	Read, interpret, and represent real-world data using single and double bar graphs, line graphs, and stem and leaf plots
GVID2	Calculate and use mean, median and mode of given data
GVID3	Construct and interpret coordinate graphs
GVID4	Identify outcomes as more/less likely
GVID5	Determine theoretical and experimental probability of simple events
Grade IX	
Real Numbers	
GIXN1	Demonstrate knowledge of divisibility rules, LCM, and GCF
GIXN2	Solve problems involving ratios, rates, proportion, and percentages including real-world problems
GIXN3	Demonstrate knowledge of integer, rational, and irrational numbers including representation, comparing and ordering them
GIXN4	Demonstrate knowledge of exponents including negative exponents and scientific notation
GIXN5	Solve problems involving roots including square roots estimation
GIXN6	Write expressions, equations, or inequalities to represent problem situations and solutions

GIXN7	Represent and solve problems using matrices including networking problems
GIXN8	Demonstrate knowledge of order of operations involving rational numbers
GIXN9	Compute and solve problems with integers, fractions, and decimals (including rational numbers and decimals)
GIXN10	Demonstrate understanding of properties of operations (commutative, associative, and distributive)
GIXN11	Compute with irrational numbers
GIXN12	Solve problems involving simple interest, compound interest, and taxes
GIXN13	Solve problems,analyse situations and make decision involving financing
GIXN14	Identify like and unlike terms
GIXN15	Simplify algebraic expressions including use of commutative, associative and distributive properties
GIXN16	Evaluate polynomial expressions for given values of the variables
GIXN17	Add, subtract, multiply, and divide polynomials
GIXN18	Solve linear and simple radical, exponential, and absolute value equations, linear inequalities, and simultaneous linear equations in two variables, including those that model real-life situations, using a number of strategies including graphs
GIXN19	Interpret, relate and generate representations of linear and non-linear functions in tables, graphs, or words; identify properties of linear functions including slope and intercepts
GIXN20	Solve two linear equations graphically
GIXN21	Solve quadratic equations using factors and graphs
GIXN22	Analyse and describe transformations and apply them to absolute value functions including linear and quadratic functions
GIXN23	Demonstrate understanding of independent and dependent variables, and domain and range
GIXN24	Apply and predict patterns including scatter plots in real-world relationships

Measurement	
GIXM1	Solve measurement problems involving unit conversion using proportion
GIXM2	Solve problems with diameter, radii, circumference and area of circle
GIXM3	Find area of composite shapes
GIXM4	Demonstrate knowledge of Pythagorean relationship and use it to solve problems
GIXM5	Solve problems involving area and perimeter of quadrilaterals
GIXM6	Calculate volume and surface area of right prism, cylinders, pyramids, cones, spheres and composite 3-D shapes
GIXM7	Demonstrate knowledge of properties of similar triangles and use the knowledge to solve problems
GIXM8	Demonstrate understanding of trigonometric ratios and identities and use the understanding to solve problems
GIXM9	Solve bearing and vector problems using the Pythagorean theorem and/or trigonometric ratios
GIXM10	Recognize that a network with more than two odd vertices is not traversable
Geometry	
GIXG1	Use the relationships between angles on lines and in geometric figures to solve problems
GIXG2	Demonstrate the knowledge of altitudes, medians, angle bisectors and perpendicular bisectors
GIXG3	Interpret and analyse properties of geometric transformations (translations, reflections, and rotations) in the plane; identify congruent and similarity criteria in triangles and solve related problems
GIXG4	Represent,analyse and apply concept of dilatations on geometric figures
GIXG5	Use orthographic mat, and isometric drawings to represent more than one 3-D shape
GIXG6	Demonstrate knowledge of minimum sufficient conditions for a unique triangle
GIXG7	Demonstrate understanding of inductive and deductive reasoning
GIXG8	Analyse the relation between number of lines symmetry and rotation to sides of regular polygon
GIXG9	Identify algebraic equation related to transformation and use them to draw graphs

Data Management and Probability	
GIXD1	Identify appropriate procedures for collecting data, examine biases in data; organize and represent data including circle graphs, histograms, box and whisker plots, scatter plots to help answer questions and analyse results
GIXD2	Demonstrate an understanding of the properties of the normal distribution (e.x., the mean, median, and mode are equal; the curve (and data) is symmetric about the mean)
GIXD3	Analyse and interpret the impact of alterations to data sets in each of mean, median and mode
GIXD4	Demonstrate the basic understanding of simple random sample
GIXD5	Use range, outliers, gaps, clusters to make inferences and predictions to solve problems
GIXD6	Demonstrate the knowledge of dependent and independent events, theoretical and experimental probability
GIXD7	Determine theoretical probability or experimental probability for simple and compound events
GIXD8	Differentiate between independent and dependent events
GIXD9	Determine conditional probability

CHAPTER 7: SCIENTIFIC LITERACY

7.1 Introduction

In the era of science and technology, scientific evidence has become one of the basis of policy decisions that have huge impact on the lives of people. Therefore, making citizens scientifically literate is a priority for the education system. The Bhutan Education Blueprint 2014-2024 emphasises the need to equip students with the knowledge, skills, and values and attitudes that nurture them into socio-economically productive citizens who can respond and confidently cope with the emerging global challenges. Thus, it resonates with the goals and principles of National Science Curriculum Framework.

The findings of the Annual Status of Student Learning 2011 (ASSL) by REC raises concerns about the performance of Bhutanese students in science. Specifically, the performance of grades VI and VIII students in science is below the international standards. As per the study, students face difficulties in understanding core concepts, procedural learning, and applying knowledge to real-life situations. Grade VI science performance declined significantly in 2011 compared to 2008. Similarly, findings from PISA-D 2017 show that the performance of Bhutanese students in science is significantly below the OECD average achievement scores, which further corroborates the findings of ASSL. However, the PISA-D findings show that Bhutanese students perform better in science tasks requiring lower cognitive skills than those requiring higher cognitive skills.

The functional and fundamental scientific competencies as identified globally are incorporated and assessed to some extent in the school-based standardised examination conducted by BCSEA. Since the inception of NEA, numerous cycles have been conducted on Reading and Numeracy by BCSEA, but Scientific Literacy was never included.

Given the emphasis accorded by the Bhutan Education Blueprint 2014-2024 to scientific education in preparing citizens to cope with the complexities of 21st century challenges, there is an urgent need to include assessment of literacy in science in the NEA. Scientific Literacy, therefore, intends to assess the fundamental scientific competencies of the students. In doing so, reliable and authentic information can be obtained on the health of science education in Bhutan at critical stages of learning for making relevant policy decisions and timely interventions.

7.2 Defining Scientific Literacy

In a world that is increasingly affected by science and technology, students of the 21st century are required to realise the importance of developing an inquiring attitude towards all forms of scientific information. This ability will enable them to become scientifically literate citizens who can make informed decisions, supported by evidence or justifications that can be communicated to the wider society. Therefore, it is essential to develop competencies in the students to help them analyse any situation through the use of scientific knowledge and appropriate technology.

Scientific Literacy refers to the knowledge and understanding of science that makes an individual capable of solving issues that affect the wellbeing of society.

A scientifically literate person has the following abilities.

- Possesses skills to acquire knowledge and understanding of science and uses tools to succeed and function effectively in a changing world.
- Collaborates and communicates effectively by clearly expressing opinions and intentions based on scientific reasoning in various forms.
- Possesses a sense of care, kindness, compassion, love, gratitude, and respect for the natural environment.
- Transfers learning experiences critically and creatively to real-world situations by connecting knowledge from all curricula.

7.3 Organisation of the Domain

Scientific Literacy domain is organised in terms of content that prescribes the scientific knowledge of students, context that describes situations which are relevant to their interests and lives, competencies that describe their abilities, cognitive demand that measures the complexity and depth of knowledge acquired, 21st Century Competencies that is required for holistic development of students, assessing the domain that details out item format, and measurable learning outcomes that the students at critical learning stages need to attain. Figure 2 shows a schematic representation of the characteristics of a cognitive instrument.

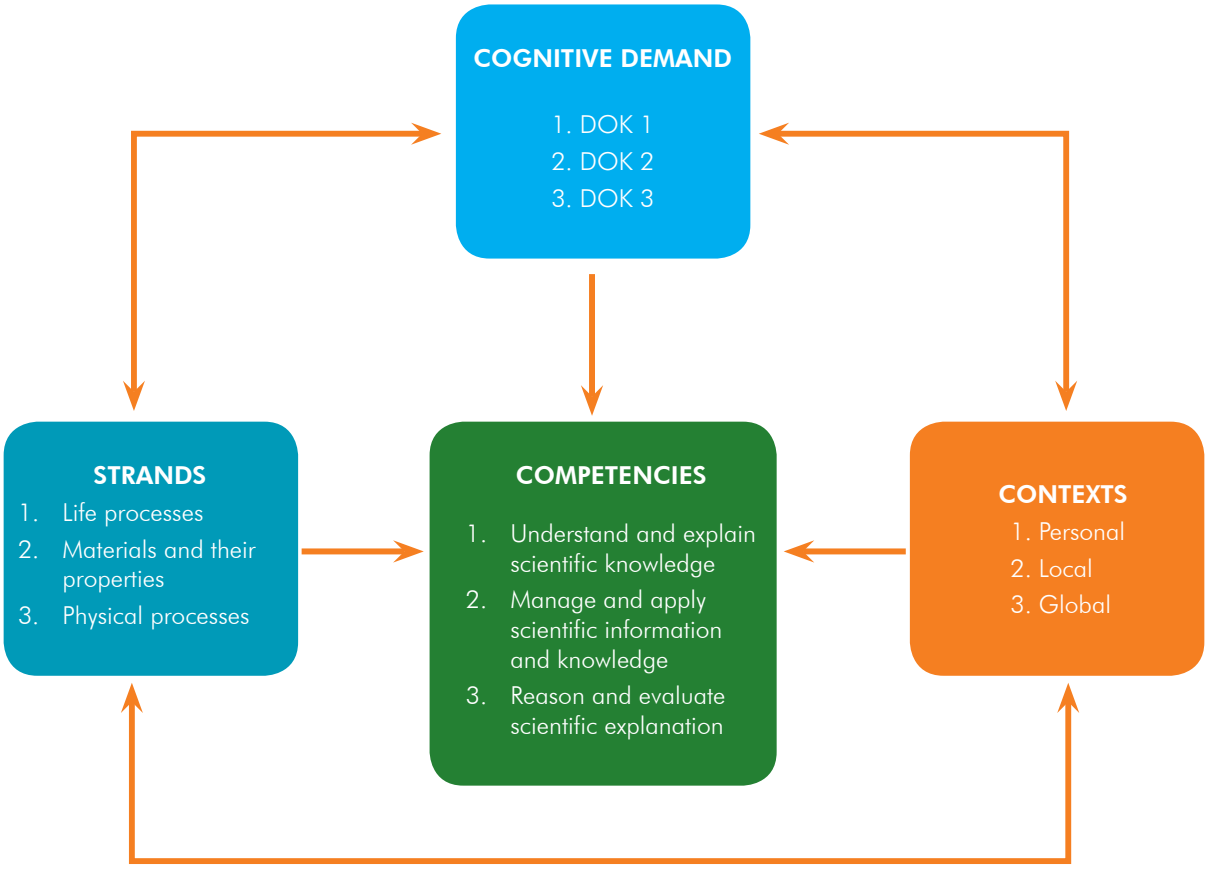

Figure 2: Characteristics of cognitive instrument.

A cognitive instrument constitutes an effective stimuli set in a relevant context, and a task or a problem that demands various levels of cognitive rigour and competencies. An instrument is characterised by the competencies at its core with the other elements (strands, cognitive demands, and contexts) linked to it.

7.3.1 Content

The National Science Curriculum Framework categorises the science learning experiences into four strands as follows:

i. **Working scientifically** explores the nature of science and investigates the natural and technological world through experimentation, reflection and analysis, and effective communication.

ii. **Life processes** deal with the biology of living things and their interactions with the surroundings, maintaining good health and hygiene, and how human behaviours affect the environment.

iii. **Material and their properties** deal with the study of materials in terms of their structure, form, chemical properties, uses, and the impact of some materials on the environment.

iv. **Physical processes** deal with the study of matter, energy and the interaction between them in terms of force, motion, light and sound, electricity and magnetism.

For the NEA, the strand Working scientifically is embedded in each of the other three strands: Life processes, Material and their properties, and Physical processes.

The Science Curriculum Framework prescribes a greater proportion of weighting to the conceptual strands: Physical processes and Life processes than the Material and their properties in grade VI and equivalent weighting for all three conceptual strands in grade IX. However, the Physical processes also include Space Sciences. Table 39 shows the approximate weighting for each strand in Scientific Literacy across the grades.

Table 39: *Weighting of Strands in Scientific Literacy Across the Grades*

Strands	Approximate weighting Grade VI	Approximate weighting Grade IX
Life processes	30%-40%	25%-35%
Material and their properties	25%-35%	25%-35%
Physical processes	30%-40%	35%-45%

7.3.2 Contexts

The NEA focuses not only on the assessment of students' content knowledge in science but also on their ability to apply the knowledge to personal, local and global contexts. The contexts are generally set in the areas of concerns, such as health and disease, natural resources, environmental quality, hazards, and the frontiers of science and technology.

Personal context includes situations and tasks that arise in the daily lives of students and their peers and families, such as safety measures while handling chemical products and maintaining hygiene.

Local context comprises issues related to community and the nation, such as contamination of water sources and human-wildlife conflict.

Global context encompasses all the problems and tasks relating to global issues, such as carbon emission and ozone layer depletion.

There are certain aspects in scientific literacy that comprises pure scientific knowledge and concepts which cannot be categorised under any of the above contexts. For example, tasks such as defining terminologies, writing equations etc.

7.3.3 Scientific Competencies

A scientific literate student must aquire knowledge of common scientific procedures and practices besides acquiring indepth knowledge and understanding of scientific concepts and theories. Further, they also need to know how to use scientific knowledge in various contexts and for various purposes. Inorder to guage the scientific literacy of students, NEA identified three broad competencies: Understand and explain scientific knowledge, Manage and apply scientific information and knowledge, and Reason and evaluate scientific explanations. Such competencies form the basis of any scientific research and innovation which is essential to address a spectrum of challenges related to environment, economy and society.

The indicators of each scientific competency are given below.

SC1. Understand and explain scientific knowledge

- Remember and recall scientific knowledge.
- Provide clear, concise, and accurate scientific information and ideas.
- Describe phenomena scientifically, identify patterns, and predict changes.
- Explain the potential implications of scientific knowledge and technological developments on society.
- Recognise the key features of a scientific investigation.

SC2. Manage and apply scientific information and knowledge

- Integrate and apply concepts and information obtained from various sources.
- Interpret and analyse data and evidence to draw valid conclusions and respond appropriately using various media.
- Engage in an inquiry process to solve real-life problems.
- Apply analytical and problem-solving skills to create new knowledge and seek innovative solutions to complex problems.
- Make connections and transfer learning from one context to another.

SC3. Reason and evaluate scientific explanations

- Recognise issues that can be investigated scientifically.
- Identify the assumptions, evidence, and reasons behind conclusions.
- Identify and analyse a situation critically, and reflect upon the implications of decisions made.
- Evaluate scientific arguments from various sources through critical thinking and reasoning skills.

Table 40 shows the approximate weighting assigned to competencies for grades VI and IX. Greater weighting is given to Understand and explain scientific knowledge for grade VI in accordance to their cognitive development. However, for grade IX, Manage and apply scientific information and knowledge, and Reason and evaluate scientific explanations, are given slightly higher weighting compared to grade VI.

Table 40: *Weighting of Competencies Across Grades*

Competencies	Approximate weighting Grade VI	Approximate weighting Grade IX
Understand and explain scientific knowledge	40%-50%	30%-40%
Manage and apply scientific information and knowledge	30%-40%	35%-45%
Reason and evaluate scientific explanations	15%-25%	20%-30%

7.3.4 Cognitive Demand

Cognitive demand refers to the type of mental processes required to solve a question or a problem. Low-level cognitive demands generally include memorisation tasks or procedures that do not make connections to understanding, meaning, or concepts. On the other hand, tasks with high-level cognitive demands, engage students in more abstract reasoning, analysis, and creative thought, and require them to verify, justify, and apply correct procedures in multiple ways.

In science, knowledge refers to both content knowledge and the knowledge of scientific processes. The assessment of Scientific Literacy is based on the Webb's Depth of Knowledge (DOK) of learning. DOK reflects the complexity of cognitive processes demanded by the tasks rather than its difficulty. It is based upon the cognitive demands required to produce an acceptable response to a specific context. The complexity of items under each strand is aligned to the competencies and contexts so that students can express the depth and the extent of learning. The DOK levels are categorised as follows.

i. **DOK 1:** Students are required to recall facts, terms, properties, or a simple one-step procedure. They should demonstrate rote response, use a well-known formula, follow or perform a clearly defined series of steps, or solve simple word problems using a formula. Student's response at this level demonstrates whether they know the answer.

ii. **DOK 2:** Students are required to explain scientific concepts and establish relationships among facts, properties, and variables. They select and apply appropriate procedures involving two or more steps and arrange, represent, interpret, and display simple data in the form of tables, charts, graphs etc., and apply information to a new context.

iii. **DOK 3:** Students are required to design investigations and models, analyse complex information or data, evaluate evidence, justify, and sequence an approach to solve a scientific problem. They solve non-routine real-world problems that are complex and abstract, demanding more reasoning and multiple steps.

The highest DOK level **(Extended Thinking)** is rare or absent in most standardised assessments due to its very high cognitive demand, openness and complexity. Therefore, Scientific Literacy focuses only on the assessment and analysis of the three DOK levels.

Table 41 shows the weighting of items to be developed under each strand according to the DOK levels to suit the degree of cognitive development of grades VI and IX students. As in global practices, higher weighting is assigned to DOK 1 for grade VI and DOK 3 for grade IX.

Table 41: *Weighting of DOK Levels Across Grades*

Strands	Grade VI			Grade IX		
	DOK 1	DOK 2	DOK 3	DOK 1	DOK 2	DOK 3
Life processes	45%-55%	35%-45%	5%-15%	30%-40%	35%-45%	15%-25%
Material and their properties	35%-45%	35%-45%	15%-25%	25%-35%	35%-45%	25%-35%
Physical processes	25%-35%	35%-45%	25%-35%	20%-30%	35%-45%	35%-45%

7.4 Assessing the Domain

For the assessment of Scientific Literacy, the test instruments constitute of various stimuli set in appropriate contexts with varying cognitive and competency demands. The tasks are presented in two broad formats – Multiple Choice Questions (MCQ) and Constructed Response Tasks (CRT).

7.4.1 Item Formats

The following item formats are considered in assessing Scientific Literacy.

MCQ are items that require the selection of a single response from a set of multiple options. Each item, in general, is considered a score point.

CRT are items that require responses either through writing or drawing. The length of the written response may vary from a phrase to a short paragraph (two or three sentences). Each item generates a score point or multiple score points. Table 42 shows the approximate weighting of the item formats.

Table 42: *Weighting of Item Format Across Grades*

Item format	Grade VI	Grade IX
MCQ	75%-85%	65%-75%
CRT	15%-25%	25%-35%

7.4.2 Item Difficulty

It is important for an assessment of this nature to include items with a range of difficulty levels to ensure that sufficient information can be gathered about students of different ability levels. Therefore, a required number of items with a range of appropriate levels of difficulty is considered for the assessment.

7.5 Assessing 21st Century Competencies

As much as students need to learn scientific content, they also need to know how to continue learning and make effective and innovative use of knowledge throughout their lives. This is essential for the increasingly complex life and work environments in today's world (Partnership for 21st Century Skills, 2009). Hence, the Bhutanese education system has identified Nine Student Attributes to equip students with 21st Century Competencies and enable them to be a part of an educated and enlightened society focussed on maximising GNH. These competencies prepare them to thrive in a competitive and harmonised world (MoE, 2014).

The mainstay of the framework is to assess the learning outcomes and the 21st Century Competencies in the context of Nine Student Attributes. Among the Nine Student Attributes, six are assessed either explicitly or implicitly through cognitive instruments while the others are captured through contextual questionnaires as given in Table 43.

Table 43: *Student Attributes Measured in Scientific Literacy*

Student Attributes
Knowledge and understanding – Students are able to acquire deeper knowledge and understanding of science and use tools to succeed and function effectively in the changing world. This attribute is measured by the following indicators: • remember and recall scientific knowledge; • identify and understand the positive and harmful effects of scientific knowledge on both environment and human life; • apply scientific knowledge and understanding to solve local and global problems; and • adapt intelligently to the real-life challenges using the understanding of scientific concepts and theories.
Intellectual competence – Students are able to analyse, evaluate, synthesise, and judge complex situations through critical reasoning. They anticipate and seek creative solutions to problems by generating innovative ideas and exploring possibilities. This attribute is measured by the following indicators: • identify and analyse a situation critically, and reflect upon the implications of decisions made based on personal and collective considerations in solving real-life and complex problems; • anticipate and seek innovative solutions to complex problems; • use acquired knowledge to create new knowledge; • interpret and analyse data and evidence to draw valid conclusions; • evaluate scientific arguments from various sources through critical thinking and reasoning skills; • engage in an inquiry process to solve problems; and • make connections and transfer learning from one context to another.
Communicative competence – Students are able to communicate effectively with a clear expression of opinions and intentions in various forms. In particular, they are able to express contexts and problems and use various media to present scientific ideas and concepts. This attribute is measured by the following indicators: • provide clear, concise, and accurate information and ideas; • provide relevant knowledge, context, and implications, rather than just facts and data; • understand and correctly apply verbal and written instructions, procedures, and technical information; • analyse, clarify, and interpret complex scientific information and issues effectively, and respond appropriately; and • communicate effectively in different contexts through various media.
Family, community and national values – Students are able to recognise and appreciate their roles in conserving the environment and maintaining natural harmony. Students generate a sense of care, kindness, compassion, love, gratitude, and respect for the natural environment. This attribute is measured by the following indicators: • develop ethics and responsibilities to apply knowledge of science for positive impact and conservation of environment; • recognise the importance of scientific contributions of an individual for harmony in the community and country; • identify environmental issues and generate ideas that show concern to mitigate those issues; • observe and describe patterns in natural and human-designed phenomena and use those • patterns to support claims about the observed or predicted relationships among phenomena • for a stable community and environment; and • draw inferences from events based on observations and forecast a future event.

World-readiness – Students are able to transfer their learning experiences to real-world situations by acquiring and connecting knowledge from all curricular areas in order to have a better understanding of the world. They have enhanced ability to apply ideas and skills to solve issues that confront all nations.

This attribute is measured by the following indicators:

- apply analytical and problem solving skills to overcome world issues based on scientific reasoning;
- integrate concepts and information obtained from various sources to develop holistic understanding of science; and
- identify scientific and technological issues and design models to address them.

Physical wellbeing – Students are able to understand the importance of physical fitness, healthy eating, and living a healthy life to become self-responsible person.

This attribute is measured by the following indicators:

- acquire knowledge on healthy habits and way of living;
- make informed decisions on the consumption of food and health care based on scientific knowledge;
- identify the benefits of hygiene and cleanliness; and
- recognise the importance of a healthy lifestyle.

7.6 Measurable Learning Outcomes

By the end of grade VI, students discover a wide range of living things, materials, and phenomena, though still predominantly focused on their immediate environment and everyday experiences. Students begin to make links between ideas and explain simple abstract and natural phenomena using simple models and theories. They apply their knowledge and understanding of scientific ideas to familiar everyday occurrences, things around, common materials and their personal health. They carry out more systematic investigations while working on their own and with others. Students communicate ideas using a wider range of scientific language, simple diagrams and drawings, and charts and graphs.

Due to the limitations of pencil-and-paper based large scale assessment, it is not possible to measure all the learning outcomes defined in the national curriculum. Therefore, the learning outcomes are reviewed and only objectively measurable ones are selected. In order to ensure that the assessment provides an opportunity for all students to demonstrate their ability, appropriate learning outcomes from two grade levels below and two grade levels above each of the identified grades (VI and IX) are reviewed and included, ex., the learning outcomes for grade VI assessment include learning outcomes from grade IV to VIII. Table 44 shows the list of measurable learning outcomes selected for Scientific Literacy at grade VI.

Table 44: *Measurable Learning Outcomes for Scientific Literacy*

Grade VI	
Strand A: Working scientifically	
GVIA1	Explain how living and non- living things work, and establish cause and effect
GVIA2	Verify ideas using given observations from experiments
GVIA3	Make predictions, pose simple questions, and plan activities and investigations using fair test
GVIA4	Identify appropriate equipment, explain different techniques and resources for conducting investigations
GVIA5	Identify appropriate tools and express measurements in standard metric system units
GVIA6	Communicate data in an appropriate and systematic way using a wide range of methods, including diagrams, drawings, tables, bar charts and line graphs
GVIA7	Identify simple patterns or associations in the measurements and observations, and draw conclusions using simple scientific vocabulary
GVIIIA1	Describe diverse ways scientists work, including the role of experimentation, evidence, and creative thought in the development of scientific ideas and theories
GVIIIA2	Apply scientific knowledge and understanding to identify and develop questions that can be investigated
GVIIIA3	Explain the importance of considering the validity and reliability of the sources to investigate question(s)
GVIIIA4	Explain ways to reduce errors and obtain reliable evidence
GVIIIA5	Use diagrams, tables, charts and graphs, identify patterns and relationships, draw conclusions, and communicate the data accurately
GVIIIA6	Consider anomalies in observations or measurements and try to explain them
GVIIIA7	Critique experimental procedures and suggest ways to improve the investigation and method
Strand B: Life processes	
GIVB1	Classify objects in our surroundings into natural and human-made, and degradable And non-degradable
GIVB2	Describe that organisms need adequate food, light, air, water, and temperature for activities and growth
GIVB3	Draw and label the parts of a flower
GIVB4	Explain the adaption of animals and plants to their environment
GIVB5	Describe feeding habits of animals and construct some simple food chains

GVB1	Differentiate between plants and animals based on their characteristics and explain variation among individuals of one kind within a population
GVB2	Identify different food groups, ex., carbohydrate, fat, protein, fibre, and describe their functions in maintaining good health
GVB3	State the negative impacts of junk food on health
GVB4	Identify different parts of the circulatory system and explain their functions (blood, heart and blood vessels)
GVB5	Describe the life cycle of common animals
GVB6	Describe the functions of the root in the transportation of water and minerals via the stem to the leaves
GVB7	Describe the parts of a flower and their functions
GVB8	Construct a food web
GVIB1	Classify animals into five classes and describe their characteristics
GVIB2	Explain the importance of varied diet for good health
GVIB3	State the functions of teeth and describe ways to take care of them
GVIB4	Describe the process by which the heart pumps blood around the body through the blood vessels, including the blood vessels of lungs
GVIB5	Describe that the skeleton and muscles provide support and protection, and help in the movement
GVIB6	Describe the main stages of growth in humans
GVIB7	Explain the role of a leaf in producing glucose for growth
GVIB8	List the nutrients that plants need for healthy growth
GVIB9	Explain pollination, seed formation (fertilization), seed dispersal, and germination
GVIB10	Describe useful and harmful changes brought about by humans and animals to habitat
GVIB11	State ways by which humans and animals can protect their local environment
GVIB12	Identify the characteristics of living things that enable them to live in different habitats
GVIB13	Represent food chains using pyramids of numbers
GVIB14	Identify beneficial or harmful micro-organisms

GVIIB1	Explain that humans need a balanced diet in order to be healthy
GVIIB2	Explain that plants need carbon dioxide, water and light for photosynthesis and to produce food and oxygen
GVIIB3	Explain germination and the types of germination
GVIIB4	Explain that different habitats support diversity of plants and animals
GVIIB5	Explain variation within a species caused by environmental factors
GVIIB6	Identify food chains in a food web and represent those using pyramids of numbers
GVIIIB1	Identify factors in our environment and lifestyles that influence our health and suggest ways to improve lifestyle and environment
GVIIIB2	Describe that the function of root hairs is to absorb water and minerals from the soil
GVIIIB3	Compare the effect of inorganic farming and organic farming on soil health
GVIIIB4	Explain that some organisms adapt to changes in their environment for their survival
GVIIIB5	Suggest ways to protect the local environment
Strand C: Material and their properties	
GIVC1	Explain the differences between a pure substance and a mixture
GIVC2	Identify solids that dissolve in water
GIVC3	Describe filtration and give examples of filtration existing in the local environment
GVC1	Explain that substances are made of elements
GVC2	Explain physical changes in materials, ex., dissolving, melting, boiling, condensing, freezing, and evaporating
GVC3	Describe separation of solids of different sizes of particles and materials
GVIC1	State the names and symbols for some common elements ex., carbon, hydrogen, oxygen, nitrogen, iron, gold, silver, copper, magnesium, lead, and aluminium
GVIC2	Classify substances as acids or alkalis
GVIC3	Explain chemical changes in materials ex., formation of concrete, and baking a cake
GVIC4	Describe the formation of hard water

GVIC5	Identify different ways in which materials are separated
GVIIC1	Explain that the elements are made of atoms
GVIIC2	Associate names and symbols of the elements of atomic number ranging from 1 to 30
GVIIC3	List the names of common acids found in fruits and other food items ex., citric acid in oranges
GVIIC4	Describe the properties of acids and bases
GVIIC5	Classify solutions as acids and bases and their level of acidity or basicity in terms of their reaction to indicators
GVIIIC1	Explain that mixtures are composed of materials that are not chemically combined and can be separated by techniques such as filtration and distillation
GVIIIC2	State examples of local and industrial applications of filtration and distillation
Strand D: Physical processes	
GIVD1	Identify contact and non-contact forces
GIVD2	Predict whether a body sinks or floats in water
GIVD3	Describe the sources of electricity
GIVD4	Identify a complete circuit
GIVD5	Differentiate between magnetic and non-magnetic materials
GIVD6	Describe the properties of light ex., light travels in straight lines and casts shadows
GIVD7	Explain that vibrations cause sounds
GIVD8	Explain rotation and revolution of the Earth and their effects on the formation of days, nights, years, and seasons
GVD1	Describe frictional force with examples and suggest ways of increasing and decreasing frictional force in terms of its advantages and disadvantages
GVD2	Define energy and give examples of where energy is stored ex., in food, and in a battery
GVD3	State that energy cannot be created or destroyed (Law of Conservation of Energy)
GVD4	Describe different types of energy ex., light, sound, heat, etc.
GVD5	Give some examples of transformation of energy from one type to another
GVD6	Identify conductors and insulators

GVD7	Identify magnetic poles of a magnet and explain that opposite poles of magnets attract and like poles repel
GVD8	Describe that light is composed of seven colours
GVD9	Describe reflection of light from some surfaces ex., shiny metal and mirrored glass
GVD10	Identify the characteristics of sounds of musical instruments (drums and stringed instruments)
GVID1	Relate gravitational force to the mass of the object
GVID2	Explain the relationship between gravitational force and altitude
GVID3	Determine the density of different regular solids in different liquids
GVID4	Explain potential energy and kinetic energy of a body
GVID5	State advantages and disadvantages of fossil fuels and nuclear energy
GVID6	Identify and draw simple parallel circuits and differentiate them from series circuits (in terms of brightness of bulbs in circuits)
GVID7	Identify the types of circuits at home
GVID8	Draw diagrams to represent magnetic lines of force and explain the power of attraction of a magnet
GVID9	Describe transparent, translucent, and opaque objects based on the transmission of light through different media (refraction)
GVID10	Explain the working of Newton's disc
GVID11	Describe pitch and volume of sounds produced by vibrating objects
GVID12	Describe polar day, polar night, solar eclipse, and lunar eclipse
GVIID1	Identify a variety of energy sources including oil, gas, coal, biomass, food, wind, water, waves, and batteries, and classify energy sources as renewable or non-renewable sources
GVIID2	Describe the formation of fossil fuels
GVIID3	Explain the types of electrical circuits at home
GVIID4	Draw the parts of the basic electrical circuits using symbols of battery, bulb and switch
GVIID5	Read current and voltage in series and parallel circuits, and explain the distribution of voltage and current in parallel circuits
GVIID6	Track the energy transformation in electrical appliances
GVIID7	Explain magnetic effect and magnetic field

GVIID8	Describe the ways of increasing the power of a temporary magnet
GVIID9	State that light travels in straight lines with a finite speed in a uniform medium
GVIID10	Explain laws of reflection of light
GVIID11	Explain that loud sounds and noise pollution can cause damage to the ear and identify ways to reduce sound pollution
GVIID12	Describe the solar system
GVIID13	Explain the causes of solar eclipse and lunar eclipse
GVIIID1	Explain the difference between the weight of an object on Earth and mass of the object
GVIIID2	Describe the variation and effect of gravity due to change in places and altitudes
GVIIID3	Explain differences in temperature in terms of transfer of heat energy
GVIIID4	Define energy and its units of measurement
GVIIID5	Calculate kinetic energy and potential energy
GVIIID6	Describe the transfer of energy in a battery and its exhaustion
GVIIID7	Illustrate a variety of ways in which electrical heating is used at home
GVIIID8	List the uses of electromagnets
GVIIID9	Explain the dispersion of white light to give a range of colours
GVIIID10	Explain that sound travels at different speeds in different media

By the end of grade IX, students would develop basic knowledge and understanding of the concepts of Chemistry, Biology, and Physics, and the fundamental skills needed to explore and discover a wider range of scientific ideas at greater depth. This lays the foundations for further study and application of scientific ideas in new contexts to solve problems.

Students should be able to critically evaluate all the relevant evidence to draw conclusions by comparing, synthesising, questioning, and critiquing different sources of information, and communicate their ideas clearly and precisely in a variety of ways. Table 45 shows the list of measurable learning outcomes selected for Scientific Literacy at grade IX.

Table 45: *Measurable Learning Outcomes for Scientific Literacy*

Grade IX	
Strand A: Working scientifically	
GVIIIA1	Apply scientific knowledge and understanding to identify and develop questions that can be investigated
GVIIIA2	Explain the importance of considering the validity and reliability of sources to investigate question(s)
GVIIIA3	Explain ways to reduce errors and obtain reliable evidence
GVIIIA4	Use diagrams, tables, charts, and graphs to identify patterns and relationships, draw conclusions, and communicate data accurately
GVIIIA5	Consider anomalies in observations or measurements and try to explain them
GVIIIA6	Critique experimental procedures and suggest ways to improve the investigation and method
GXA1	Use scientific knowledge and understanding to devise questions or ideas that can be investigated
GXA2	Identify an appropriate method and write the procedures to investigate questions or ideas devised
GXA3	Describe key factors that need to be taken into account when collecting evidence
GXA4	Describe the safe use of a wide range of apparatus and chemicals appropriately
GXA5	Assess the level of uncertainty in observations and measurements
GXA6	Communicate qualitative and quantitative data using diagrams, tables, charts, and graphs
GXA7	Obtain the results of calculations to an appropriate degree of accuracy
GXA8	Use observations, scientific knowledge, and understanding to draw conclusions
GXA9	Identify anomalous data giving reasons for rejecting or accepting them using scientific understanding
GXA10	Suggest improvements to the methods used and propose further investigations that could be carried out
GXIA1	Explain theories and models that explain ideas in science and also their limitations
GXIA2	State some benefits and risks of the applications of science, and evaluate the implications of these benefits and risks to the society
GXIA3	Describe the ways in which science informs decision making at the national level and across the world
GXIA4	Identify an appropriate question for investigation using the knowledge acquired from daily life experiences
GXIA5	Describe the purpose and the use of experiments

GXIA6	Distinguish between accuracy and reliability
GXIA7	Identify safety measures, environmental issues, and ethical considerations in an investigation or experiment
GXIA8	Describe methods to safely use apparatus and chemicals
GXIA9	Interpret key trends and patterns in data collected and communicate these in an appropriate form
GXIA10	Assess the reliability and precision of experimental data and draw valid conclusions using scientific knowledge
GXIA11	Apply simple statistical tests and, where appropriate, assign confidence limits to experimental results
GXIA12	Evaluate the techniques used in the experimental activity by recognising their limitations
GXIA13	Suggest improvements and adjustments to the given investigation and methods
Strand B: Life processes	
GVIIB1	Describe that all living organisms are made up of cells and explain differences in the basic structures of an animal cell and a plant cell by labelling their parts
GVIIB2	Label the key structures of respiratory system ex., lungs, trachea, bronchi, and alveoli
GVIIB3	Describe that aerobic respiration involves chemical reaction in every cell of the human body
GVIIB4	Describe male and female reproductive systems in humans using diagrams
GVIIB5	Describe the basic stages of the menstrual cycle
GVIIB6	Draw a labelled diagram of a neuron and label the key structures of the nervous system and explain their functions
GVIIB7	Explain the importance of personal hygiene and list some common diseases, their effects, and their prevention
GVIIB8	Explain using word equation that plants need carbon dioxide, water, and light for photosynthesis and to produce food and oxygen
GVIIB9	Explain the importance of nitrogen and phosphorus for growth of plants
GVIIB10	Explain that different habitats support diversity of plants and animals
GVIIB11	Explain variation within a species caused by environmental factors
GVIIB12	Define the term ecosystem and identify a few local ecosystems
GVIIIB1	Describe the functions of different parts of animal cell and plant cell (ex., chloroplast and cell wall, cytoplasm, and the nucleus in both animal cell and plant cell)
GVIIIB2	Explain that cells can form tissues, and tissues can form organs, and organs form organ systems, and different organ systems make an organism
GVIIIB3	Label the key structures of the digestive system and state their functions

GVIIIB4	Explain the principle of digestion and describe absorption of digested soluble products into the bloodstream
GVIIIB5	Explain the role of the lungs in gaseous exchange
GVIIIB6	Explain the transportation of reactants and the products of respiration to and from the cells of the human body
GVIIIB7	Identify factors in our environment and their lifestyles that are detrimental to our health and suggest ways to improve lifestyle and environment
GVIIIB8	Describe the function of root hairs
GVIIIB9	Explain asexual reproduction and sexual reproduction and propagation in plants
GVIIIB10	Describe that some organisms are adapted to changes in their environment for their survival
GVIIIB11	Explain the effect of predation and competition for resources on the size of different populations in a habitat
GVIIIB12	Explain biodiversity and its importance
GVIIIB13	Give examples of ways to protect the local environment
GIXB1	Describe the basic structure of an animal cell and plant cell and state their functions
GIXB2	Explain the need for staining
GIXB3	Explain how different cells (ex., root hair cells, sperm cells) are adapted to their functions and relate cells and cell function to life processes in a variety of organisms
GIXB4	Explain that the nucleus contains chromosomes that carry genes
GIXB5	Explain the processes of digestion, including the adaptations of digestive organs to their functions
GIXB6	Describe the basic structure of the heart, veins, arteries, and capillaries
GIXB7	Describe the basic structure of the breathing system (lungs, diaphragm, bronchi, and alveoli) and its role in providing cells with oxygen for respiration and explain respiration
GIXB8	Describe the types, structure, and functions of the nervous system
GIXB9	Justify the presence of myelin sheath in some neurons and explain the role of neurones in transmitting electrochemical impulses
GIXB10	Name glands and the hormones they secrete
GIXB11	Describe how humans maintain a constant body temperature
GIXB12	Describe the stages of menstrual cycle and the control of menstrual cycle by the hormones FSH, LH, oestrogen, and progesterone
GIXB13	Describe the defence mechanisms of our body, including the role of the skin, blood, and mucous membranes of the respiratory tract

GIXB14	Explain the effect of solvents, alcohol, tobacco, and other drugs on our body functions
GIXB15	Explain the importance of healthy plant growth by the uptake and utilisation of mineral salts
GIXB16	Name the basic plant hormones and describe their roles in the growth and development of plants
GIXB17	Explain transpiration in plants and the transportation of substances within plants that are required for growth and reproduction
GIXB18	Describe that variation arises from genetic causes, environmental causes, and/or a combination of both
GIXB19	Explain the basic principles of cloning, selective breeding, and genetic engineering, and their implications
GIXB20	Evaluate the implications of reduced variation within a population
GIXB21	Define gene as a section of DNA and describe its relationship with chromosomes
GIXB22	State the theories of evolution and the evidence of evolution
GIXB23	Explain, using ideas of interdependence, adaptation, competition, and predation, and about the distribution and relative abundance of organisms in a habitat
GIXB24	Explain the impact of humans on the environment
GIXB25	Explain the roles of microbes and other organisms in the decomposition of organic materials and the carbon and nitrogen cycles
GXB1	Explain how substances enter and leave cells through the cell membrane by diffusion, osmosis, and active transport, and the exchange of substances between capillaries and tissue
GXB2	Explain the role of enzymes, stomach acid, and bile in the process of digestion
GXB3	Categorise respiration as aerobic respiration or anaerobic respiration based on the availability of oxygen
GXB4	Describe the pathway taken by nervous impulses in response to a variety of stimuli, including the roles of receptors, sensory neurons, and motor neurons
GXB5	Explain the rapid responses to dangerous stimuli by the reflex arc and the relay neuron
GXB6	Describe removal of waste products of body functions by the lungs and kidneys
GXB7	Explain the uses of hormones in controlling fertility (oral contraceptives inhibiting FSH production, and giving FSH as a fertility drug)
GXB8	Explain the utilisation of the products of photosynthesis by plants
GXB9	Explain that plant hormones are used to control plant growth and development, including the plant hormones used commercially (rooting and grafting)
GXB10	Explain how minerals and food synthesised in the leaves are transported to other parts of the plants
GXB11	Explain that sexual reproduction is a source of genetic variation, while asexual reproduction produces clones

GXB12	Explain that mutation is a source of genetic variation and has a number of causes
GXB13	Describe the structure of DNA and its functions
GXB14	Describe the mechanism of monohybrid inheritance, where there are dominant and recessive alleles
GXB15	Explain that variation and selection may lead to evolution or to extinction
GXIB1	Describe the structure of the mammalian gas exchange system and the essential features and roles of the alveoli
GXIB2	Describe the structure of the mammalian heart, including the atria and ventricles, atrioventricular, and semilunar valves
GXIB3	Describe the structure and roles of arteries, veins, and capillaries
GXIB4	Explain the principles of homeostasis in terms of receptors, effectors, and negative feedback
GXIB5	Determine the physiological and behavioural responses that maintain a constant core body temperature in ectotherms and endotherms, with reference to peripheral temperature receptors, the hypothalamus, and effectors in skin and muscles
GXIB6	Explain mammalian hormones and describe the roles of FSH, LH, oestrogen, and progesterone in controlling the human menstrual cycle
GXIB7	Explain the movement of water between plant cells and their environment in terms of water potential
GXIB8	Evaluate the ethical, moral, and social issues associated with genetic engineering
GXIB9	Distinguish the types of variation
GXIB10	Define the terms habitat, population, and ecosystem
GXIB11	Describe the stages in the carbon and nitrogen cycle and explain the role of microorganisms in the cycle
Strand C: Material and their properties	
GVIIC1	Identify naturally occurring elements that make up the materials
GVIIC2	Justify that the elements are organised in the Periodic Table in vertical groups that have similar properties
GVIIC3	Explain that elements are organised in horizontal rows in the Periodic Table called periods
GVIIIC1	Describe the different particles present in the atom (proton, electron, and neutron) including their charges and relative masses
GVIIIC2	Describe the simple model of the atom, and define mass number and atomic number
GVIIIC3	Explain electronic configuration and valency with examples
GVIIIC4	Write word equation and chemical equation for the reactions of elements to form compounds

GVIIIC5	Explain that mass is conserved when chemical reactions take place because of the presence of the same atoms in the reactants and the products
GVIIIC6	State examples of local and industrial applications of filtration, distillation, and chromatography
GVIIIC7	State the reactions in the form of word equation and chemical equation of metals and bases (including metal carbonates) with common acids
GIXC1	Describe the structure and bonding in metal elements and explain duplet and octet rules
GIXC2	Explain the formation of ions and giant ionic lattices, and the formation of covalent bond
GIXC3	Describe that elements (ex., H2, O2, N2, C) or compounds (ex., CH4, CO2, SiO2) can form covalent bonds that may have simple molecular structures or giant structures
GIXC4	Differentiate physical properties of substances with giant structures (metallic, ionic, or covalent) from those with simple molecular structures
GIXC5	Explain that alkanes are saturated hydrocarbons, while alkenes and alkynes are unsaturated hydrocarbons
GIXC6	Apply the general formula and IUPAC rules to the nomenclature for alkanes (CnH2n+2), alkenes (CnH2n), and alkynes (CnH2n-2)
GIXC7	Draw and name structural isomers for simple alkanes, alkenes, and alkynes, ex., hexane
GIXC8	State the products of burning hydrocarbons and write balanced chemical equations for these reactions
GIXC9	Describe the process of fractional distillation of crude oil and the uses of different fractions of crude oil and addition polymers
GIXC10	Explain cracking to obtain more useful alkanes and alkenes
GIXC11	Describe reactions of common metals with acids, oxygen, and water using balanced chemical equations, and construct a reactivity series to predict the reactions of other metals
GIXC12	Describe different parts of the nitrogen cycle
GIXC13	Explain the manufacture of nitrogenous fertilisers and the importance of converting nitrogen to ammonia for agriculture
GIXC14	Explain the environmental consequences of the over-use of chemical fertilizers
GIXC15	Describe the role of carbon cycle and explain that the burning of fossil fuels can upset the balance of the carbon cycle resulting in global climate change
GIXC16	State the environmental hazards caused by waste polymers and measures to prevent them
GIXC17	Identify that each element has a specific number of protons in the nucleus
GIXC18	Explain the connection between the arrangement of outer electrons and the position of an element in the Periodic Table, and predict the group of the given elements
GIXC19	Explain that elements in the same group of the Periodic Table have similar properties and justify with reasons
GIXC20	Explain periodic properties and their variations across the period and down the group

GIXC21	State the physical properties ex., m.p.s and b.p.s of the Noble Gases and the alkali metals, and describe the changes in these properties as the order in the group descends
GIXC22	Describe the trends of the reactions of the alkali metals, Li, Na, and K with water, oxygen, and chlorine and write balanced chemical equations for each reaction, and also predict the reactions of Cs and Fr with water, oxygen, and chlorine
GIXC23	State the uses of Noble Gases based on their properties
GIXC24	Justify that mass is conserved in all chemical reactions and that there is a great variation in the rates at which these reactions take place and that these rates can be varied by altering temperature and pressure, by changing the surface area of a solid reactant, or by adding a catalyst
GIXC25	Classify reactions as exothermic or endothermic reactions depending on the temperature change that takes place during the course of the reaction
GXC1	Describe the general properties of alcohols and name the first three alcohols
GXC2	Describe the process of industrial manufacture of ethanol and the principles of manufacture of alcohol in the distilleries
GXC3	Compare the economic and environmental advantages and disadvantages of the production of alcohol, and state the uses of ethanol and the social and health issues of drinking alcohol
GXC4	Explain the effects of the reactivity of a metal in determining the extraction process from its naturally occurring ores
GXC5	Explain that the rate of many reactions depend on the frequency and energy of collisions between particles, temperature, and concentration
GXC6	Classify reactions as exothermic or endothermic reactions, and describe the energy transfer involved in making and breaking of chemical bonds in chemical reactions
GXIC1	Explain ionic bond and the nature of the covalent bond
GXIC2	Define the term electronegativity and describe the structure of metals in terms of the attraction of positive metal ions
GXIC3	Apply the IUPAC rules to the nomenclature of simple alkanes, alkynes, and alkenes
GXIC4	Write the general formula for alkanes, alkynes, and alkenes and write correct formulae for an alkyne
GXIC5	Explain that alkenes and alkynes are unsaturated hydrocarbons and state the uses of polymers
GXIC6	Compare the reactions of alkanes, alkenes, and alkynes
GXIC7	Explain the effects of global warming and climate change, and explain actions that can mitigate them

Strand D: Physical processes	
GVIID1	Calculate the average speed of an object
GVIID2	Describe the effects of unbalanced and balanced forces to predict the direction of movement of objects
GVIID3	Define density and relative density
GVIID4	State that light travels in straight line with a finite speed in a uniform medium
GVIID5	Describe the solar system
GVIIID1	Differentiate speed and velocity
GVIIID2	Calculate pressure using formula P=F/A
GVIIID3	Differentiate between temperature and heat and explain that differences in temperature can lead to the transfer of heat energy by conduction, convection, and radiation
GVIIID4	Define resistance, voltage, and current with symbols, and describe the relationship between current and voltage and the calculation of resistance and voltage using Ohm's Law
GVIIID5	Describe the difference between direct current (d.c.) and alternating current (a.c.) in terms of source of electricity
GVIIID6	Describe refraction of light at the boundary between two different materials and explain the dispersion of white light to give a range of colours
GVIIID7	Formulate the relationship between the loudness of the sound and the amplitude of the vibration, and the pitch of the sound and the frequency of the vibration causing it
GIXD1	Compare speed and velocity and determine distance, time, and speed graphically
GIXD2	Explain that balanced forces do not alter the velocity of a moving object and apply equations of motions to simple numerical problems
GIXD3	State that acceleration is change in velocity per unit time and explain momentum and its effect on stopping distances
GIXD4	Explain Newton's law of motions and define one newton
GIXD5	Derive equation of Newton's second law of motion as F=ma, where mass is constant, considering that force and acceleration are always in the same direction
GIXD6	Explain pressure and laws of liquid pressure
GIXD7	Derive the expression, p= hdg to show pressure in a liquid increases with depth
GIXD8	Describe upthrust and factors affecting upthrust, explain Archimedes' principle and buoyancy and the equilibrium of floating bodies
GIXD9	State the principles of floatation and its application in everyday life
GIXD10	Determine density of irregular solids and liquid using Archimedes' principle

GIXD11	Convert temperatures from degree Celsius to Kelvin and Fahrenheit
GIXD12	Explain the transfer of thermal energy, thermal equilibrium, and use of insulation
GIXD13	Define specific heat capacity and apply equation, $Q = mc\Delta T$ and Principle of Calorimetry ($Q = V \times I \times t$) in numerical problems
GIXD14	Explain latent heat of fusion, latent heat of vaporisation, and thermal expansion of matter
GIXD15	Explain the terms a.c. and d.c., Lorentz force, and Fleming's Left Hand Rule
GIXD16	Describe the working of simple d.c. motor and explain electromagnetic induction (Faraday's law, Lenz's law, and Fleming's Right-Hand Rule)
GIXD17	Explain charging of an insulating material by friction
GIXD18	Describe the forces of attraction between unlike charges (positive and negative charges) and forces of repulsion between like charges
GIXD19	Explain electric current, and calculate steady current using the formula, $I = dq/dq$
GIXD20	Describe refraction through glass slab, lateral displacement, and the refractive index
GIXD21	Explain the principle of reversibility and the relationship among refractive index, real depth, and apparent depth
GIXD22	Explain dispersion and refractive index of different coloured light through a prism
GIXD23	Describe the properties of light waves (reflection and refraction) total internal reflection, and its occurrence and applications
GIXD24	Describe properties of sound waves (reflection and refraction), define time period, frequency, wavelength and amplitude of a wave, and calculate speed, frequency, and wavelength of a wave using the equation $v= f \lambda$
GIXD25	Explain transfer of energy by waves, uses of ultrasound, and radio waves
GIXD26	Describe asteroids, comets, meteors and meteoroids, black holes and wormholes
GIXD27	Compare the relative sizes and positions of heavenly bodies in the universe (parallax method and Kepler's law)
GIXD28	Describe the development of telescopes and satellites that has helped our knowledge and understanding of the Solar System and the universe
GXD1	Explain stability of bodies in reference to stable equilibrium, unstable equilibrium, neutral equilibrium, and system in equilibrium
GXD2	Explain pressure and the factors affecting the magnitude of pressure
GXD3	State Archimedes' principle and describe liquid pressure
GXD4	Apply equation for pressure, $P = F/A$ and equation for density,$p= m/V$
GXID1	Define displacement, speed, velocity, and acceleration and represent distance travelled, displacement, speed, velocity, and acceleration using graphical methods

GXID2	Interpret displacement-time graph and speed-time graph for uniform accelerations, and find the distance travelled by a body calculating the area under a speed-time graph and acceleration using the slope of a velocity-time graph
GXID3	Derive and apply equations of motion, from the definitions of velocity, acceleration, and kinematic equations which represent uniformly accelerated motion in a straight line
GXID4	Define potential difference and the volt in terms of work done per unit charge, resistance, and the ohm
GXID5	Calculate the total resistance of resistors in series and the total conductance
GXID6	State the laws of refraction of light
GXID7	Define refractive index, explain critical angle and total internal reflection, and relate refractive index to the critical angle
GXID8	Describe the application of total internal reflection in the transmission of light along an optical fibre
GXID9	Define displacement, amplitude, frequency, period, speed, and wavelength and deduce equation, $v = f\lambda$
GXID10	Describe the practical uses and dangers of electromagnetic waves
GXID11	Describe orbital motions, conic sections, and gravitational orbits using Kepler's Laws and Newtonian gravitation

CHAPTER 8: CONTEXTUAL QUESTIONNAIRES

8.1 Introduction

This chapter discusses the importance of contextual questionnaires with a special emphasis on the content, components, and conceptual framework. To accurately identify and map the relevant context, the contextual questionnaires gather information from students, teachers, principals, and DEOs/TEOs about their background, teaching-learning practices, physical, social and emotional environment in schools etc.

8.2 The Importance of Contextual Questionnaires

Contextual questionnaires enable teachers, educators and policymakers to understand the variables that could influence the learning outcomes of students. One of the objectives of the NEA is to guide educational policy developments and interventions. This can be achieved by collecting a comparable data set on contextual information and student learning outcomes. While the cognitive instruments measure student learning outcomes, the contextual questionnaires collect information about variables that might be associated with, or help explain, differences in the levels of student performance (Anderson & Morgan, 2008).

Data collected from contextual questionnaires informs on the practical context in which student learning occurs. For example, information on parental qualification level may indicate the type of academic support provided at home which has impact on the learning outcomes.

8.3 Categorising Contextual Factors

The NEA takes into account contextual factors that are considered at various levels such as country, community, school, classroom, teacher, home, and the individual student. These contextual factors are categorised as inputs, processes, and outcomes (ACER-GEM, 2016). The contextual questionnaires are built upon the input-process-outcome model as depicted below.

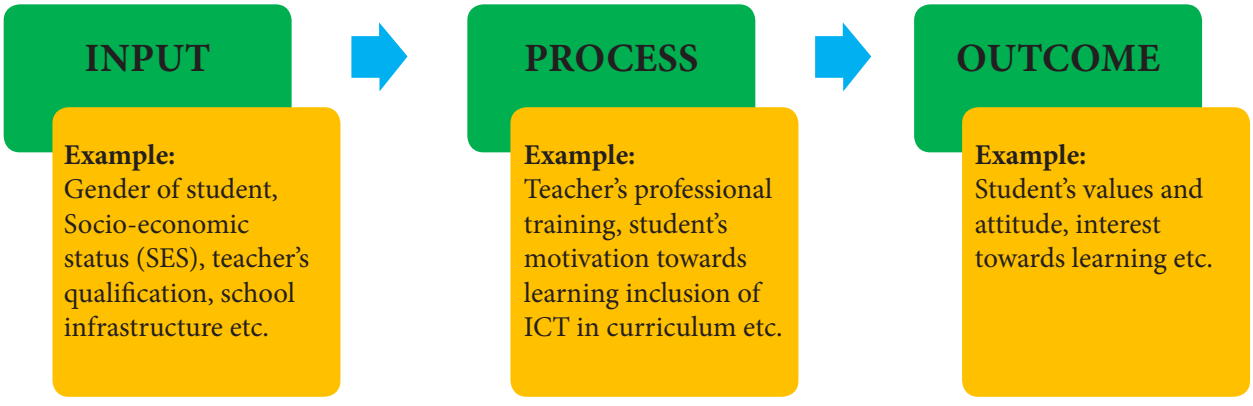

Figure 3: Input-process-outcome model

8.3.1 Input

Inputs are a range of factors that affect how student learning takes place. They are not easily influenced by other contextual factors and include demographics, structural, resources, and information (Keeves, 1972).

These factors are measured at various levels. At the student level, the inputs include demographic information such as gender, age, language spoken at home, and structural information such as socio-economic index. At the school level, inputs may include resources such as student-teacher ratio, number of classrooms, and access to additional learning resources.

8.3.2 Process

Processes are factors related to student learning and are constrained by the inputs. They include values, practices, and behaviours (Keeves, 1972). Education processes transform the inputs and resources into outcomes. Practices and behaviours refer to activities undertaken in an education system by various participants, namely students, teachers, school leaders, education ministry and funding agencies.

At the student-level, practices and behaviours include reading habits, interaction in the classroom, and time spent on studies. The teacher-level processes refer to factors such as training programmes, resources evaluation methods, and the frequency of checking homeworks. Practices and behaviours at the school level include decision-making processes such as the inclusion of 21st Century Competencies in the curriculum, and teacher training and development.

8.3.3 Outcome

Outcome factors are referred to attitudes, values, and interests at the student level. These outcomes are continuously developed over time within individuals after experiencing various inputs and processes. They are frequently measured in terms of students' attitude towards school and learning, as well as their interests in various subjects. Input and process factors at different levels contribute to determine the non-cognitive outcomes of students.

8.4 Conceptual Framework for the Contextual Questionnaires

The conceptual framework specifies the areas on which the questionnaires are developed according to the categorisation of the contextual factors. Table 46 illustrates the conceptual framework for questionnaires with example variables that may affect student learning at school.

Table 46: *The Conceptual Framework of Contextual Questionnaires*

Dimensions					
Level	Input		Process		Outcome
	Structure/ demographic	Resource	Value	Practice/ behaviour	
Country	Different regions	Education budget	Nine Student Attributes	21st Century Competencies in the curriculum and teaching processes	Indicators related to student attitudes and values, and educational outcomes
Community	Rural/Urban	Inclusive education	Equity	Creating an enabling condition (SEN programmes)	
School	Class size	Infrastructure	Academic success	Monitoring and support	
Classroom/ teacher	Qualification of teacher	Teaching material	Expectation of the student performance	Teacher training and practices	
Home	Language spoken at home	Resources available at home	Value of education	Parental involvement	
Student	Gender	Study materials	Motivation towards learning	Reading habits	

Note: Adapted from Changes in Reading Comprehension Across Cultures and Over Time by P. Lietz, 1996, Waxmann. Copyright 1996 by Petra Lietz.

The first column shows different levels to which the collected information correspond, while different dimensions of each level are specified across the cells according to the input, process and outcome. The cells allow categorisation of any variable depending on the level and the dimension with which they are associated. For example, education budget is a country level input variable that is associated with resource dimension, while teacher training is a process variable at the classroom/teacher level.

In general, factors in the vertical cells are frequently interdependent. For example, students' motivation towards learning and how their families value education may be linked to their academic success. Similar is the case with the factors in the horizontal cells.

The outcomes in the framework are considered at the individual student level. However, if such measures are aggregated correctly they can be used as outcome measures at higher levels. For example, the variables related to students' attitude and interest can be aggregated to compare their attitude and interest at the classroom, school, or country level.

A similar conceptual framework is followed for the development of questionnaires for students, teachers, principals and DEOs/TEOs.

8.5 Content of Contextual Questionnaires

The content of the contextual questionnaires for students, teachers, principals and DEOs/TEOs are based on the conceptual framework. It incorporates the prioritised specificities in the areas of input, process and outcome. Research based on global trends, such as Hattie's list of factors influencing students' achievement, PISA, TIMSS and PIRLS are considered where relevant.

8.5.1 Student Questionnaire

The Student Questionnaire contains questions pertaining to the students' background such as gender, age, language used at home and social group. It also contains questions pertaining to their socio-economic status, additional help received in studies, activities outside school, attitude towards learning, classroom and school environment, pedagogical practices and Nine Student Attributes. Table 47 depicts the Blueprint for Student Questionnaire.

Table 47: *Blueprint for Student Questionnaire*

Factors	Variables	Variable Types	Expected Outcomes
A. Students' background	Gender	Dichotomous	It is expected that the students' background will impact their learning outcomes.
	Social group	Categorical	
	Grade repetition	Categorical	
	The number of years studied in the present school	Categorical	
B. Socio-Economic Status (SES)	Parental background	Categorical	It is expected that socio-economic status of parents have an impact on the learning of students.
	Resources at home	Categorical/ Dichotomous/Likert	

Factors	Variables	Variable Types	Expected Outcomes
C. Classroom environment	Physical environment	Dichotomous	It is expected that the classroom environment influences the performance of students.
	Social environment	Likert scale	
	Emotional environment	Likert scale	
D. School environment	Physical environment	Likert scale	It is expected that the school environment influences the performance of students.
	Social environment	Likert scale	
	Emotional environment	Likert scale	
E. Students' attitude towards learning	Motivation to learn	Likert Scale	It is expected that students' attitude towards learning significantly impacts their learning outcome.
	Attitude towards the subject	Categorical	
F. Pedagogical practices	Teaching, learning and assessment	Likert Scale/Categorical	It is expected that the pedagogical practices influence students' performance.
G. Additional help in studies	Family support	Dichotomous	It is expected that students who get additional help in studies learn better.
	School support	Categorical	
H. Students' activities outside the school	Study activities	Categorical	It is expected that students' learning depend not only on what they learn from the school but also from the activities they do outside the school.
	Leisure activities	Categorical	
	Family activities	Likert Scale	
	Home environment	Dichotomous	
	Home activities	Likert scale	
I. Student's health	Health condition	Likert scale	It is expected that the students' health influence their performance.

Factors	Variables	Variable Types	Expected Outcomes
J. Nine student attributes	Enduring habits of lifelong learning	Rating scale	It is expected that the students exhibit certain attributes at each key stage of learning.
	Family, community and national values	Rating scale	
	Spirituality and character	Rating scale	
	Physical wellbeing	Rating scale	
	Leadership competence	Rating scale	
	World readiness	Rating scale	
* Any other variables (depending upon the current situation and other national priorities)			

8.5.2 Teacher Questionnaire

The Teacher Questionnaire collects background information such as gender, social group, highest academic and professional qualification. It also incorpates questions to on their teaching and assessment practices, professional enhancement, classroom and school environment, attitude towards teaching environment and Nine Student Attributes. Table 48 depicts the Blueprint for Teacher Questionnaire.

Table 48: *Blueprint for Teacher Questionnaire*

Factors	Variables	Variable Types	Expected Outcomes
A. Teachers' background	Gender	Dichotomous	It is expected that the teachers' background will influence students' learning outcomes.
	Social group	Categorical/ Dichotomous	
	Highest academic qualifications	Categorical	
	Highest professional qualification	Categorical	
	Teaching experience	Categorical	
	Subject and grade level taught in the school (English, Dzongkha, Mathematics and Science)	Categorical	
	Instructional hours	Categorical/Open-ended	

Factors	Variables	Variable Types	Expected Outcomes
B. Teaching practices	Emphasising learning intentions	Likert scale	It is expected that the teaching practices will impact students' learning outcomes and have policy implications.
	Learner-centered strategies	Likert scale	
	Reflective practices	Likert scale	
	Integration of ICT in the teaching and learning process	Likert scale	
	Resources used	Likert scale	
C. Assessment practices	Understanding the importance of assessment	Likert scale	It is expected that the assessment practices will impact students' learning outcomes and have policy implication.
	Continuous formative assessment	Likert scale	
	Summative assessment	Likert scale	
D. Classroom environment	Physical environment	Dichotomous	It is expected that the classroom environment will impact students' learning outcomes and have policy implications.
	Social environment	Dichotomous	
	Emotional environment	Likert scale	
E. School environment	Physical environment	Likert scale	It is expected that the school environment will have implications on students' learning outcomes and policies.
	Social environment	Likert scale	
	Emotional environment	Likert scale	
F. Professional enhancement	Content knowledge	Categorical/Rating scale/Open-ended	It is expected that the professional enhancement will impact students' learning outcomes and have policy implication.
	Teaching methods	Categorical/Rating scale/Open-ended	
	Assessment strategies	Categorical/Rating scale/Open-ended	
	Research	Categorical/Rating scale/Open-ended	
	Student behaviour management	Categorical/Rating scale/Open-ended	
	Use of Information and Communications Technology	Categorical/Rating scale/Open-ended	

Factors	Variables	Variable Types	Expected Outcomes
G. Motivation to teach	Students' interest	Likert Scale	It is expected that the teachers' motivation will influence students' learning outcomes.
	Management support	Likert Scale	
	Peer support	Likert Scale	
	Stakeholders' support	Likert Scale	
	Remuneration	Likert Scale	
H. Support from education officials	Monitoring and support	Categorical	It is expected that the support from education officials will influence students' learning outcomes.
I. Nine student attributes taught in schools	Nine student attributes practised in schools	Likert Scale	It is expected that the incorporation of Nine Student Attributes will lead to the holistic development of a child.
* Any other variables (depending upon the current situation and other national priorities)			

8.5.3 Principal Questionnaire

The Principal Questionnaire obtains background information about the principal and school along with the principal's attitude towards profession, teacher efficacy, school environment, monitoring and support and Nine Student Attributes. Table 49 depicts the Blueprint for Principal Questionnaire.

Table 49: *Blueprint for Principal Questionnaire*

Factors	Variables	Variable Types	Expected Outcomes
A. Principal's background	Gender	Dichotomous	It is expected that the principal's background will influence students' learning outcomes.
	Social group	Categorical/Dichotomous	
	Highest academic qualification	Categorical	
	Highest professional qualification	Categorical	
	Leadership experience	Dichotomous/ Categorical/ Open-ended	
B. School background	School strength	Open-ended	It is expected that the schools' background will influence students' learning outcomes.
	School management board	Categorical/Likert scale	
	Community support	Likert scale	
	Instructional hours	Open-ended	
	School culture	Dichotomous	
C. Principal's attitude towards profession	Students' interest	Likert scale	It is expected that the principal's attitude will influence students' learning outcomes.
	Management efficacy	Likert scale	
	Stakeholders' support	Likert scale	
	Remuneration	Likert scale	
D. Students' characteristics	Socio-economic status	Open-ended	It is expected that the student's characteristics will influence their learning outcomes.
	SEN students	Open-ended	
	Students' disciplinary issues	Open-ended	

Factors	Variables	Variable Types	Expected Outcomes
E. Teachers' efficacy	Motivation of teacher	Rating scale	It is expected that the teachers' efficacy will influence students' learning outcomes.
	Pedagogical practices	Rating scale/ Categorical/Open-ended	
	Resources	Rating scale	
	Information and Communications Technology	Rating scale	
F. School environment	Physical environment	Categorical/Open-ended/Dichotomous	It is expected that the school environment will influence students' learning outcomes.
	Social environment	Likert scale	
	Emotional environment	Likert scale/Open-ended	
G. Monitoring and support	Dzongkhag/Thromde	Likert scale	It is expected that the support from stakeholders will influence students' learning outcomes.
	Royal Education Council	Likert scale	
	Bhutan Council for School Examinations and Assessment	Likert scale	
	Ministry of Education	Likert scale	
H. Nine student attributes	Nine Student Attributes practised in school	Likert scale	It is expected that the incorporation of Nine Student Attributes will lead to the holistic development of a child.
* Any other variables (depending upon the current situation and other national priorities)			

8.5.4 DEO/TEO Questionnaire

The DEO/TEO Questionnaire incorporates questions to obtain information on their gender, social group, highest academic and professional qualification, and leadership experience. Further, questions pertaining to their management and administration, financial management, and policy and planning are also included. Table 50 depicts the Blueprint for DEO/TEO Questionnaire.

Table 50: *Blueprint for DEO/TEO Questionnaire*

Factors	Input Variables	Variable Types	Expected Outcomes
A. Background	Gender	Dichotomous	It is expected that the background information of DEO/TEOs will have impact on the students' learning outcomes.
	Highest academic qualification	Categorical	
	Highest professional qualification	Dichotomous/Open-ended	
	Professional experience	Categorical/Open-ended	
B. Dzongkhag background	School information	Open-ended	It is expected that the information about schools in a Dzongkhag will have impact on the students' learning outcomes.
C. Professional and academic development	Professional supervision	Categorical	It is expected that the professional supervision, support and monitoring will have impact on the students' learning outcomes.
	Professional development support	Likert scale	
	Periodical monitoring	Likert scale	
D. Policy and planning	Educational plan	Dichotomous	It is expected that policy and planning implementation will have impact on the students' learning outcomes.
	Guidelines for principals and teachers	Dichotomous	
	Advocacy on educational policies	Dichotomous	
	Budget plan	Dichotomous	

Factors	Input Variables	Variable Types	Expected Outcomes
E. Administration and Management	Planning and deployment of teachers	Likert scale	It is expected that the management and administration will have impact on the students' learning outcomes.
	Equitable distribution of educational facilities	Likert scale	
	Teacher/student placement	Likert scale	
	Coordination of intra Dzongkhags and Thromde educational programs	Likert scale	
F. Financial management	Annual budget (education programs in the Dzongkhags and Thromdes)	Likert scale	It is expected that financial management will have impact on the students' learning outcomes.
* Any other variables (depending upon the current situation and other national priorities)			

8.6 Inclusion of Nine Student Attributes in the Questionnaires

From the Nine Student Attributes, some of the attributes are explicitly measured through Cognitive Questionnaires while others such as enduring habits of lifelong learning, spirituality and character, and Bhutan-specific competencies based on '*tha-dam-tshig*' and *'ley-ju-drey*' are measured through Contextual Questionnaires.

Questionnaires on the following areas are developed to check whether Nine Student Attributes are:

- included in the current policy guidelines and curriculum;
- incorporated in schools;
- assessed in schools; and
- embodied by the students.

CHAPTER 9: ASSESSMENT OF CHILDREN WITH DISABILITIES

9.1 Introduction

Bhutan's journey of inclusive education began in 1973 with the establishment of a school for students with visual impairment under the initiative of HRH Prince Namgyal Wangchuck. Since then, numerous efforts were made by the government to expand inclusive and special educational services for chidren with diverse learning needs in Bhutan. In 2001, Changangkha Lower Secondary School was instituted as the first school to integrate children with physical and other forms of disabilities, followed by the establishment of the Deaf Education Unit for children with deafness and hard of hearing at Drukgyel LSS, Paro in 2003.

The MoE endeavours to put in place plans and policies to ensure that all schools in the country are made inclusive. As of June 2020, there are 20 schools with Special Educational Needs (SEN) programmes with 797 students enrolled, including the Draktsho Vocational Training Institute for Children and Youth (MoE, 2019). By the end of the 12th Five Year Plan, MoE has planned to establish at least one school with a SEN programme in every Dzongkhag/Thromde.

International commitments including the Sustainable Development Goals (SDG) 2030 set by the United Nations, aligned with national philosophies of Gross National Happiness (GNH), have re-emphasised the need for inclusive education. Most countries now agree that the education must be accessible to all children, including CWDs. Education systems across the globe endeavour to achieve this objective through the transformation of design and delivery methods of their curricula and through teacher development. Countries are also strengthening their learning assessments to include CWDs by ensuring that their assessment frameworks are inclusive and that the sample population chosen for analysing the results of a large-scale assessment reflects the students' participation and their presence within the population and schools.

Research in inclusive education shows that providing appropriate assessment opportunities in the classroom and testing situations result in improved learning for many students, including those with disabilities (Bourke & Mentis, 2014; ACARA, 2012). Educational requirements of CWDs in assessments vary greatly depending on their specific needs, the learning areas, and the setting in which they are being assessed. However, for some, an appropriate accommodation built into the assessment itself, the test administration process, or the means by which they access the assessment can give the them the opportunity to participate and be accounted for in national data. This chapter provides general information regarding provision of appropriate accommodations for assessing CWDs.

9.2 Background

Inclusive education promotes accommodation of students with different learning needs in mainstream schools. According to UNESCO (1994), *"schools should accommodate all students regardless of their physical, intellectual, emotional, social, and linguistic or other conditions."* In 2015, countries around the globe, including Bhutan, committed to the promise of 'leaving no child behind' by ratifying the SDG 2030[1], which includes a provision for persons with disability. The United Nations Convention on the Rights of Persons with Disability[2] (UNCRPD) also promotes the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities and promotes respect for their inherent dignity. Article 24 of the UNCRPD specifically emphasises the right of persons with disabilities to education without discrimination and on the basis of equal opportunity. Thus, there is a renewed impetus to create a more equitable and inclusive society where every child has equal opportunity for quality education.

UNICEF defines disability with reference to the International Classification of Functioning Disability and Health (ICF) developed by the World Health Organisation (WHO) (UNICEF, 2013). The ICF defines disability in two main ways:

- as a matter of a person's body and its structure and functions; and
- in terms of the person's activity and participation.

ICF's definition shifts the focus from what causes disability (diseases, medical conditions or diagnoses) to how a disability affects a person in his or her life. The definition recognises the way a person functions and the way it affects his or her capacity to function. It recognises that people live in specific contexts, and that it is meaningful to assess people's function in terms of the societal and environmental factors in which they live.

In the Asia Pacific region, it is estimated that about 690 million persons with disabilities face several barriers to employment, political participation, education, and social protection (UNESCAP, 2012). The Two-Stage Child Disability study conducted in 2011 on Bhutanese children aged 2-9 years showed that the prevalence of any disability based on an identified difficulty in at least one functional domain was 21.3%. The prevalence of mild disability was 19% and the prevalence of moderate or severe disability was 2.7% (NSB & UNICEF, 2012). This is a large proportion of the child population and may include a number of school-aged children as the school starting age in Bhutan was six at the time of the study[3]. According to the Population and Housing Census of Bhutan (PHCB), 2017, the prevelance of disabilities was recorded at 2.1% corresponding to 15,567 persons. Exclusion of such a large population from the NEA may distort the overall educational achievement data and may also mean that the provision for educational improvement is based on inaccurate information about the population (MoE, 2018).

[1] https://sustainabledevelopment.un.org/?menu=1300
[2] https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html
[3] It has been reduced to five since then.

Following the ratification of the Convention on the Rights of the Child (CRC) by Bhutan in 1990, national legislations were aligned to fulfil the mandates of CRC. Further, the Constitution of the Kingdom of Bhutan, Article 7 (Fundamental Rights Section 15) states, "All persons are equal before the law and are entitled to equal and effective protection of the law and shall not be discriminated against on the grounds of race, sex, language, religion, politics or other status." Similarly, Article 9.16 of the Constitution states, "The State shall provide free education to all children of school going age up to tenth standard and ensure that technical and professional education is made generally available and that higher education is equally accessible to all on the basis of merit." The National Policy on Persons with Disabilities, 2019, also ensures equal access and opportunity in education for persons with disabilities.

According to Education Sector Strategy Realising Vision 2020, all students with disabilities and with special educational needs, including those with physical, mental and other types of impairment, shall be offered educational opportunities (Ministry of Health and Education, 2003). The Strategy Vision encourages full participation of all students in common classroom activities including access to national curriculum and extra-curricular activities, with the direction that CWDs should be provided with all resources necessary for them to receive quality education.

The Bhutan Education Blueprint 2014-2024 mandates provision of access and equal opportunity in education to CWDs. The National Education Policy of Bhutan (2020) states, *"Appropriate arrangements shall be made available for students with disabilities in assessment and examinations to ensure that all students are able to demonstrate their learning."* Thus, in an effort to provide equitable educational services and required interventions, the design of the NEAF is made inclusive.

9.3 Understanding the Learning Assessments of Children with Disabilities

Every student is unique and this is equally true of students with disability. Bourke & Mentis (2014) state that students with disabilities require a range of pedagogical practices and diverse assessment approaches that can inform and describe their learning. A well-designed standardised test can compare the educational achievements of students with cognitive disabilities with those of students without cognitive disabilities, though students with disabilities usually perform poorly.

Masters (2018) states his interpretation of equity in the article "A different way to organise the school curriculum" as follows:

"In an 'equitable' school system, students' special needs and unequal socio-economic backgrounds are recognised and resources (for example, teaching expertise) are distributed unequally in an attempt to redress disadvantage due to personal and social circumstances. Here again, 'equity' is achieved by prioritising fairness over equality."

This view of equity in education can be applied to assessments. To achieve equity, students with disabilities need accommodations or alternative forms of assessment that provide evidence of their learning. This will help the education system to address their learning needs through improved and targeted pedagogies. For instance, in countries like the US, UK, and Ireland, accommodations or changes (response method, scheduling, setting, etc.) are carried out to make assessments accessible but the assessment criteria remain the same (Douglas et al., 2016).

A study undertaken by the European Agency for Development in Special Needs Education and cited in the World Report for Disability lists critical points to remember while assessing CWDs (WHO & World Bank, 2011, p. 220):

- the needs of CWDs should be considered within all general assessment policies as well as within policies on disability-specific assessment;
- assessment procedures should complement each other;
- assessment procedures should aim to promote diversity by identifying and valuing the progress and achievements of each child; and
- inclusive assessment procedures should explicitly aim to prevent segregation by avoiding – as far as possible – forms of labelling. Instead, assessments should focus on learning and teaching practices that lead to more inclusion in a mainstream setting.

As the range and needs of disabilities vary significantly, there is no best practice to assess the learning of CWDs. In addition, nations differ in their approach towards inclusive assessment. For example, in Australia's National Assessment Program – Literacy and Numeracy (NAPLAN), the assumption that all students have the ability to hold a pencil and fill in response "bubbles" on response sheets, or read standard size print in order to complete an assessment, may be considered indirect discrimination (Cumming & Dickson, 2013, p.9). Most testings for instructional purpose for CWDs are informal, teacher-designed, and based on teacher judgement. Some Australian states, for example Victoria, have tests that are based on teacher judgement and linked directly to instruction, and are not used for system-wide monitoring (Victorian Curriculum and Assessment Authority, 2016).

Bhutan has embraced inclusive education, and schools are required to follow the Guidelines on Assessment, Examination, Promotion and Transition of Students with Disabilities (MoE, 2018) to support CWDs. Accordingly, BCSEA facilitates necessary arrangements for the CWDs to gain access to examinations and demonstrate their attainment in the best possible examination conditions (BCSEA, 2018).

9.4 International Assessment Practices

In large-scale assessments, CWDs are either excluded altogether or are included with accommodations. In alternative assessment systems, tools with appropriate assessment criteria are used to assess them. In universally designed systems, a single assessment is used to measure the learning of all students (Douglas et al., 2016).

In PISA, students with severe disability requiring extensive resources and intensive support are excluded (Chakraborty & Kaushik, 2019). In international assessments, the exclusion rate should be limited to 5% in compliance to sampling specifications (Martin, Mullis, & Foy, 2008; Martin, Mullis, & Kennedy, 2007). This is to ensure consistency and comparability between countries.

In countries like the US, schools are allowed to test CWDs using alternative assessments when accommodations fail to support inclusion. Some national assessments, like the Pan Canadian Assessment Programme (PCAP), have various provisions for CWDs. For example, a test booklet may be produced in Braille, large print or audio format, readers may be provided for persons who are blind, and instructions may be provided through the use of sign language or in writing[4].

However, the use of accommodations in Australia such as extra time or a reader to read to students are restricted, and special assessment conditions must be within reason as they have the potential to impact the rigour of the assessment. There is a recognition that students with all forms of disabilities should be able to participate but those who need accommodations other than the ones available for NAPLAN are unable to take the test. Students with intellectual disability may be exempted from national and international assessments in Australia[5].

Many large-scale assessments, including PISA, use a UH ("Une Heure" meaning one hour in French) instrument to test CWDs studying in the mainstream schools. UH instruments have half the number of items in mainstream instruments, but time allocated is equal to that of main stream students, and it is administered in small groups (Chakraborty & Kaushik, 2019). Many countries already have accommodations for high-stakes tests such as school-leaving examinations, and the accommodations need to emulate these processes so that all students have equal opportunities to succeed in a school system.

[4] https://www.canada.ca/en/public-service-commission/services/public-service-hiring-guides/guide-assessing-persons-disabilities/guide-assessing-persons-disabilities/guide-assessing-persons-disabilities-determine-implement-assessment-accommodations-key-definitions.html
[5] https://www.nap.edu.au/naplan/school-support/adjustments-for-students-with-disability

9.5 Accommodations

Accommodations are changes in testing materials or procedures that enable CWDs to participate in an assessment in such a manner that allows their abilities to be assessed rather than their disabilities.

Accommodations in exams are practical arrangements designed to help CWDs who cannot otherwise make a fair attempt to show what they know in an examination; such accommodations help them to access the examination tests/questions and communicate their responses.

Accommodations are changes to the settings, timing, or scheduling of the examination, or the format of presentation or response of the examination. An accommodation does not affect the integrity of the examination (MoE, 2018).

Careful selection of assessment accommodations according to strengths, challenges, and experiences of CWDs can support classroom instruction as well as allow them to demonstrate what they have learned. Bhutan has policies, rules, and guidelines on the learning assessment of CWDs. These are reviewed and updated periodically based on the emerging context and needs.

Before choosing accommodations for the NEA, the following points should be considered.

- Students should receive accommodations as documented in their Individual Education Plan (IEP).
- Procedures should be in place to ensure that test administrators adhere to the directions for the implementation of accommodations.
- The types of accommodations should be consistent with those that have already been provided to the child.

9.6 Types of Accommodations

The NEA follows the types of accommodations specified in the Guidelines on Assessment, Examination, Promotion and Transition for Students with Disabilities by MoE (2018). These accomodations are listed in Table 51.

Table 51: *Accommodations for Children With Disabilities*

Type of Accommodation	Reason for providing	What to provide	For whom to provide	Remarks
1. Presentation	Presentation of test items can make it difficult for certain students to access them. For ex., many test items are presented visually in a written format, which can limit some students from demonstrating what they know with respect to what is intended to be measured. Presentation format can be altered in a variety of ways to enable student access to the test.	Large print/ magnifying programmes and devices in case of computer/ electronic device-based assessments (excluding eyeglasses)	Students with poor vision	This accommodation may be helpful for students who have limited vision but can demonstrate adequate reading skills when text size is enhanced. Magnification or large print is unlikely to accommodate students with learning difficulties or reading difficulties (for ex., dyslexia).
		Braille/dark or raised lines	Students who have learned Braille because of extremely limited or non-existent vision	It is important to note that some items (for ex., graphs) simply cannot be translated into Braille, and therefore may be particularly difficult for students with visual impairments, regardless of whether a Braille version is made accessible to them.
		Sign-language Interpreter to translate items and text	Students who are deaf and hard of hearing, and know sign language	This accommodation may be standardised using a video of sign-language interpretation. It is important to recognise that sign language is region-specific, and it is important for the student to have access to the variation with which he or she is most familiar. It may be hard to translate certain words and phrases accurately into sign language; this could potentially be addressed when tests are developed to ensure that they will be accessible to all students.
		Read-Aloud/ Amplifying devices (excluding hearing aids)	Students whose current reading level is below the level of test content	An assistant/audiotape/screen-reader may read aloud the test directions, items, and responses to a student. In some cases, a tape or recording may be created to standardise the process. Additional accommodations, like more time, may be needed to read test items aloud, given that speech can require more time than silent reading, Testing individually or in small group settings may be needed to avoid distracting other students who do not need reading assistance.

2. Response	Tests often require students to fill in bubbles or write extended responses to demonstrate their knowledge. Physical limitations or writing skill deficits can make testing difficult for students. When a test is not intended to measure physical writing skills, accommodations in response can be made. For ex., typing responses.	Invigilator or an amanuensis or sign language interpreter	Students with writing difficulties (whether due to motor or cognitive difficulties) who have trouble demonstrating their knowledge on a test	An amanuensis may help students mark their answers, or write down students' answers for test items. However, without proper training of proctors/scribes, this accommodation may lead to misleading results.
		Computer/machine	Students who are adept at using a computer to answer questions and respond to instructional tasks; digital response rather than written response in the case of dyscalculia	This accommodation can be associated with more positive test results than paper-and-pencil formats. Comparability of test construct can also be maintained when a test is administered in this format.
		Writing in test booklets	Students who get confused when attempting to transfer their response selections to an answer booklet	This accommodation can be helpful for some students with disabilities.
		Calculator	Students with computation difficulties, or difficulty remembering or performing basic arithmetic	Accommodation for calculator depends upon the intent of the test – it can be allowed when intention is to test skills other than algorithmic. It will be ineffective if a student has not been trained for the proper use of calculators to find a particular answer. For ex., identifying remainders for division problems or performing operations on fraction.
		Reinforcement for task completion	Students who may not be particularly motivated (due to some specific disability) to participate in testing	It may be appropriate to provide students with incentives for completing items. It should not be done by acknowledging correct answers during the assessment.

3. Scheduling	Nationwide tests are often set up to be administered at a pre-specified time and for a pre-specified amount of time. Students with disabilities may need adjustments to these scheduling requirements.	Extended time	Students who are unable to perform optimally within the pre-specified time of the assessment due to physical or mental limitations (for ex., chronic fatigue, need for medication to be at a particular threshold, etc.)	Due to physical or mental limitations, some students may need extra time to complete tests. This accommodation should not be provided if measurement of speed in completing tasks is crucial in determining competence. The amount of extended time should be decided in advance. Some other accommodations may necessitate the use of extended time to ensure that they can be administered appropriately. For ex., additional time may be needed for students completing Braille test editions. Students requiring extended time will need a separate room and additional supervision to avoid distraction from other students completing the assessment.
		Test breaks	Students who have trouble concentrating and focusing or with physical difficulty in sitting for extended periods of time	A break from testing may help them refocus and perform consistently throughout the test. It is important to monitor students during breaks to ensure that they are not accessing specific information to help them correctly answer test items. Frequent breaks may disrupt and therefore disadvantage a student (use of discretion and balanced decisions would be necessary with regard to the provision of breaks).
		Extended breaks between parts of the assessment (up to one full day)	Students who experience anxiety about particular subjects/types of assessments	For this accommodation, a separate room and additional supervision are required.
4. Setting	In most of the cases, national tests are administered in a classroom setting to multiple groups of students at a time. However, this test environment may be distracting for some students with learning difficulties.	Minimal distractive elements like artworks, windows etc.	Students with trouble concentrating and focusing	In such circumstances, it may be important to allow the student to be monitored while taking the test in a separate setting, either individually, or with a small group of other students. Study carrels may also make it possible to minimise distractions for students who have difficulty concentrating.
		Small groups	Students with difficulty in focusing when in large groups or those who require accommodation that may distract other students	
		Study carrels	Students who display behaviours that may distract other test- takers	

In addition to the above types of accommodations, NEA will also consider the UH *('Une Heure)* test instrument as one of the accommodations in future.

9.7 Determining the Inclusion of Children with Disabilities

The purpose of including CWDs in the NEA is to find out whether educational services provided by schools and institutes promote learning for this group of the student population, and to plan the provision of quality support services.

The National Education Assessment includes:

- CWDs taking national curriculum with necessary accommodations;
- CWDs accessing adapted or specialised curriculum; and
- adaptation upto 20% of the test items (if necessary), without compromising the learning outcomes.

Considering the current status of knowledge, attitudes and practices regarding CWDs in Bhutan, 20% adaptation and modification in the NEA test items is established. Despite the expansion of inclusive and special educational services, there is still prevelance of limited and inappropriate inclusive classroom settings and assistive devices, and lack of teacher capacity to meet the varied needs and abilities of the CWDs (MoE, 2014).

Affords of the CWDs even with 20% adaptations and modifications in test items would be equivalent or even more worth accounting for the assessment as they are participating in the NEA with less facilities otherwise required as necessity for them.

9.8 Considerations for Including Children with Disabilities

The following considerations are made to include CWDs in the assessment.

- Ensure all relevant stakeholders understand the purpose of NEA.
- Ensure all relevant stakeholders are aware of the characteristics of NEA, including content, item format, timing, etc.
- Educate the relevant stakeholders regarding the necessity of assessment participation options such as participation with and without accommodations, and alternative assessment.
- Ensure consensus from relevant stakeholders on suggested content and adaptations to provide modified or alternative assessment.
- Identify accommodations required to support CWDs to access NEA based on the functional needs of the child.
- Learning outcomes should be appropriately represented, where a modified or alternative assessment is deemed acceptable.

- Determine assessment content, and the quality and quantity of expected responses in consideration of inclusive access. For ex., are students with cognitive disabilities able to complete a portion of grade level items or participate at a lower level and how their responses are recorded.
- Identify specific barriers to the provision of support and accommodation. For ex., test presentation, the acceptable standard of response, and the location of the test with an acknowledgement of students' abilities in consideration of these factors.
- Determine and provide appropriate accommodations to administer NEA.
- Review on a triennial basis whether a change in accommodations or test formats is needed for future NEA cycles.
- Select appropriate accommodations needed to eliminate barriers identified in previous cycles of NEA.
- Maintain consistency in assessing students in future cycles of NEA. This is because technological advances and modes of delivery of instruction and adjustments and accommodations may change over time.
- Consult parents of CWDs on their participation and accommodations required in NEA.

Note: The above information is adapted from Inclusive Assessment and Accountability: A Guide to Accommodations for Students with Diverse Needs, by S.E. Bolt, (2009), Guilford Press. Copyright 2009 by Sara E. Bolt.

CHAPTER 10: ASSESSMENT DESIGN

10.1 Introduction

One of the key aspects of the NEA is to monitor trends in performance between grades and track changes in students' performance from one assessment cycle to the next. This will assist in tracking the students' performance over the years, enabling the government to intervene and support for the improvement of student learning.

10.2 Instrument Design

Key considerations at the time of designing the instruments include the kind of data to be collected, the manner in which it will be analysed and reported, and how the findings of the assessment might be used in policymaking and improving the education system.

Two different types of instruments are developed for NEA, viz., cognitive instruments and contextual questionnaires. Different instruments are developed for each grade level covering their respective domain-specific assessment materials. The topics covered and the assessment tasks developed are appropriately mapped to the assessment framework. Two types of items are used to assess the cognitive domains – Multiple Choice Questions (MCQ) and Contructed Response Tasks (CRT). Considering the nature of large-scale assessments, majority of the items are MCQs. Item difficulty and complexity are also considered.

Contextual Questionnaires collect information about variables affecting the learning environment of students. The usefulness of each variable is described within the analysis plan, including how to analyse it. Variables that produce reliable data and are critical to inform education policy developments are selected for the contextual questionnaire.

Multiple Choice (Likert, dichotomous, rating and categorical) and Free-response questions are used to collect data from the contextual questionnaires. Respondents have the opportunity to select one or more options in multiple-choice responses and to provide a response of their choice without any restrictions in the case of free-response questions. Given the nature of large-scale assessment, the majority of items here too are multiple choice type. Linguistic difficulty and complexity are also considered while developing the contextual questionnaires.

The instruments across all domains are designed in English language except for Dzongkha. It is ensured that the respondents are able to understand and respond appropriately. The instruments contain clear instructions on how to answer the questions.

Table 52 provides an example of the steps involved in the development of contextual questionnaires, and the person(s) who should be responsible for completing the task.

Table 52: *Contextual Questionnaire Development Process*

Steps	Descriptions	Person(s) responsibilities
Defining the purpose	Clarify the purpose and potential use of the questionnaire data	Policy-makers, key stakeholders and test development managers
Development of questionnaire blueprint	Design questionnaire blueprint to specify respondents, focus areas, item types, coding, and administration protocol	Test development managers, subject experts, data analyst, item writers, experienced teachers, policy-makers, and key stakeholders
Development of questionnaires	Write questionnaire	Test development managers and item writers
	Refine for clarity and usefulness in questionnaire panels	Test development managers and item writers
	Review questionnaires	Test development managers, policy-makers, and key stakeholders
Planning for data analysis	Specify the plan for processing information, for creating measurement variables and indicators, and for types of analysis	Data analyst and test development managers
Piloting of the questionnaires	Design, produce and proofread the questionnaires for pre-testing	Test development managers, item writers, design and layout professionals, and proof-readers
	Write administration instruction for pre-testing of the questionnaires and train test administrators	Test development managers and item writers
	Pre-test the questionnaires at the same time when cognitive tests are pre-tested	Test development managers, logistic manager, and test administrators
Data analysis of pilot data	Reliability and validity of the items	Test development managers and data analyst
Finalization of questionnaires	Analyse the pre-test questionnaire data	Test development managers and data analyst
	Refine the questionnaires and administration instructions on the basis of the pre-test data and feedback from the pre-test administrator	Test development managers, item writers, and data analyst
	Produce the final form of questionnaires	Test development managers, item writers, design and layout professionals, and proof-readers

Note: Adapted from Developing Tests and Questionnaires for a Aational Assessment of Educational Achievement by P. Anderson & G. Morgan, 2008, World Bank. Copyright 2008 by Prue Anderson and George Morgan.

10.3 Finalisation of the Instruments

During the early stage of instrument development, cognitive lab test is executed for refining and validating the instruments. At a later stage, a panel of experts review and revise the instruments prior to the field trial to establish the suitability of questions, and appropriateness and clarity of the language used. After the field trial, the data are analysed and instruments modified, if necessary.

Cognitive Instrument layout – While designing the cognitive instruments for NEA, the following points are considered.

- Appropriateness of items for the grade level.
- Providing items with a range of cognitive demand to get to the correct answer.
- Mapping of items to criteria laid down in the assessment framework for the subject-specific domain.

Contextual Questionnaire layout – While designing the questionnaire layout for NEA, the following points are taken into account.

- Questionnaires that are easy to use for the respondent must have
  - ✓ a simple, consistent way of answering items;
  - ✓ an uncluttered presentation;
  - ✓ response categories that are clearly associated with each question; and
  - ✓ explanations for codes used, if any.
- Layout of questionnaires must be easy to use for data processing after administration.

10.4 Data Analysis Plan

Item Response Theory (IRT) is preferred approach for the data analysis of cognitive instruments. The analysis plan involves using the one-parameter model (Rasch Model) in psychometric analysis, item calibration, linking tests, mapping student performance through the development of learning progressions, drawing population inferences through applying weights, and replication methods using advanced approaches.

An outline of the proposed contextual data analysis is made ready before the finalisation of the key variables included in each instrument. The data analysis plan specifies the following.

- The information provided by each question in an instrument.
- The manner in which this information is used in the analysis.
- The method by which the variables included in the instruments is meaningfully analysed while ensuring that there is no redundancy in the analysis.

In some cases, it may be difficult to fully capture a construct by asking a single question in an instrument. For example, a composite index of socio-economic variables is constructed by combining various background factors of parents of the sample students such as their economic background, their education and occupation, etc., in a weighted manner. Similarly, a composite index of Nine Student Attributes is constructed by using cognitive instrument data and contextual questionnaires data. The data analysis plan describes how these variables are aggregated to produce the composite index (if required) and how the composite index is used.

The information captured by the instruments are analysed with various statistical techniques such as descriptive statistics, graphical analysis, comparing means of two variables, correlation, and regression analysis. The choice of data analysis methodology will be dependent on the types of variables, research model, and their hypotheses.

10.5 Assessment Cycle

The NEA for grades III, VI, and IX will be conducted in a three-year cycle model. This will ensure that the gap between the grades will be the same as the number of years between each cycle. This model will serve two fundamental purposes, viz., tracking the same cohort across the school years, and identifying the impact of long-term interventions in school education system in Bhutan.

This model will allow policy changes to be introduced at grade III (entry-level grade) and then to monitor the effect of these changes in phases. It reduces the load of introducing changes to cohorts accustomed to one model of education. The diagram below shows the design in which different cohorts can be tracked and their progress monitored over a period of time. The complete cycle for cohort 1 to cohort 3 is visible and the same can be replicated in the model.

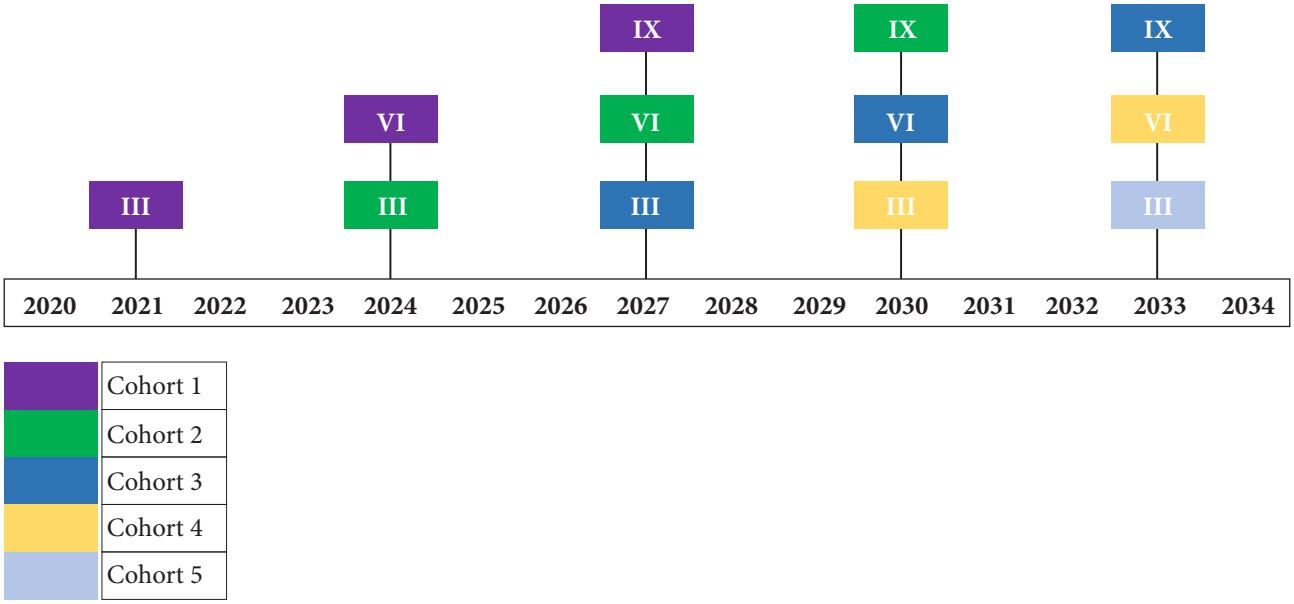

Figure 4: Model for the assessment cycle.

In 2021, grade III will be assessed in Dzongkha Reading Literacy, English Reading Literacy and Mathematical Literacy domains. After three years, along with grade III, grade VI will be assessed in Dzongkha and English Reading Literacy, Dzongkha and English Writing Literacy, Mathematical Literacy and Scientific Literacy. In 2027, along with grades III and VI, grade IX will be assessed in Dzongkha and English Reading Literacy, Dzongkha and English Writing Literacy, Mathematical Literacy and Scientific Literacy.

10.6 Sampling

The NEA is a sample-based assessment for students in grades III, VI, and IX across Bhutan and students studying at these grades are defined as the target population. In order to achieve the level of precision and accuracy in the result, it is recommended that systematic sampling be used to identify a representative sample and report on subgroups of interest.

The NEA follows a systematic multi-level sampling similar to renowned large-scale learning assessments, such as PISA, TIMSS etc. The sampling has two levels – school level and student level. Schools are sampled at the first level by PPS method, and students are sampled at the second level by SRS method. For consistency, the NEA uses a single data source across all sampling units when constructing the sample frame.

10.6.1 Level 1 – School Sampling Within Each Sampling Unit

The sampling frame for each grade lists all schools where the target population is studying. Based on it a separate sampling frame for each grade is developed.

The details of the sampling requirement are decided during the sample planning based on the suggestions provided by experts. They include a measure of size (MOS), stratification variables, use of replacement schools, and method for identification and non-response adjustments at school and student levels.

10.6.2 Level 2 – Student Sampling Within Each Sample School

Within school, sampling procedures involve the selection of students prior to testing. When deciding which within-school sampling approach to use, it is important to consider how best to balance technical and logistical demands, and to ensure that every student has an equal chance of being selected in the sample. Stratification or clustering at this level decreases the efficiency of the sample. Therefore, in order to achieve the same level of precision, more students are required than compared to a simple random sampling scenario.

10.7 Reporting Student Achievement

The data collected from students' response are used to develop a scale for mapping student performance, comparing performance between subgroups of the population, and also for comparisons over time. Development of the scale is followed by descriptions of achievements at various levels on the scale to meaningfully draw a composite picture of student performance in the respective domains. These descriptions form learning progression or metrics. It must be noted that different domains have different scales, meaning the scales and scores are not comparable between the domains. This implies that a scale score of 250 in the mathematics domain does not have the same substantive meaning as a scale score of 250 in the science domain.

In 2021, a learning progression will be developed for grade III. In the subsequent cycles, when other grades are included in the assessment, this learning progression will be further enriched to have a learning progression from grade III to the highest grades being assessed under the NEA for each cognitive domain. This learning progression will cover domain-specific competencies and content to present a composite picture of achievement on a scale. NEA will then be able to compare students' performance of various subgroups on this learning progression with the help of the scale score, and will also be able to describe the achievements using the learning progression.

The scale has a midpoint of 250 for grade III, and 50 scale score points are equivalent to one standard deviation for the entire student distribution in NEA 2021. Other grades, when included, will use the same scale and map the progression accordingly on the same scale. Some items from the cycle will be used in the next cycle to link the assessment results from the two cycles and report the performance of both assessments on the same scale. This will enable comparisons between cycles and monitoring of performance over time and between grades.

Development of a learning progression to describe performance of students or groups requires collecting data on a large number of items. There are limitations on the number of items a student can attempt before fatigue sets in, and also on the time for which a student can sit for a test before they start losing interest. Both of these limiting factors influence on gathering reliable information about student performance. The next section describes a model in which a large number of items can be assessed and also addresses the issues of students fatigue and interest.

10.8 Assessment Booklet Design

To correctly measure a learning progression, the number of items required to be tested in the NEA is usually more than the items that can be possibly answered by one student within the available testing time. To mitigate this, the NEA uses multiple booklets which involve assigning all assessment items to at least one assessment booklet for each domain. There are some items which would be common between booklets to enable linking of student responses from different booklets. Each student requires to complete only one booklet in a domain. Selection of linking items is undertaken using the following basic criteria:

- linking items have a range of difficulties;
- linking items cover all strands in the domain;
- linking items should be spread across the booklets; and
- positioning of the linking items in the booklets should be similar across the booklets.

This implies that the linking items behave somewhat like a mini test. However, the exact number of linking items depends on the number of strands and also the range of difficulties covered. Usually,10-15 items that are statistically sound and meet the above-mentioned criteria are used as linking items between two booklets.

For vertical linking between two grades, appropriate items must be chosen for both grades and that all students of any particular grade do not either get a zero or full credit in those items. For example, if item A is a linking item between grades III and VI, it should not have a situation where all students of grade III or VI get a zero or full credit in the item.

Considering the complexity of measuring students' learning, the NEA has developed a booklet design to enable the collection of sufficient and reliable information through two sets of booklets per domain. The following are to be considered while designing booklets:

- meet statistical objectives;
- report on student performance;
- test administration format (for example, single domain, multiple domains, all domains administered to one student);
- student testing time;
- item positioning effect;
- item linking (horizontal, vertical, and historical);
- number of items in the pool; and
- number of items to be released to the public.

There are multiple approaches to booklet design, like rotated design, matrix design, and separate booklet design. The NEA uses a simpler version of separate booklets in which all of the items in a pool can be grouped into clusters. The clusters are then assigned to different booklets. However, there would be a cluster or a number of clusters which would be assigned to multiple booklets for the purpose of linking.

The items in the pool are grouped into clusters, the size of which depends on one of the two factors, viz., the number of items in each cluster, or time required to answer the questions in each cluster. If the number of items in each cluster is used as the deciding factor of cluster size, test developers need to be careful to develop clusters that require approximately the same time to answer them.

If the duration of time required to answer questions in a given cluster is kept the same, then test developers have the flexibility to vary the number of items in each cluster. However, given that the number of items in each cluster will be less than the ideal number required, it may not be possible to cover every content area. Therefore, item developer must be careful in maintaining equivalent difficulty levels for all clusters. The difficulty level of each cluster will be decided based on the trial data available for the NEA. For the purpose of the NEA, the clusters have an equal number of items and each student is assessed on an equal number of items.

Table 53 below shows a sample booklet design for a domain. In the design, all test items are assigned to one of the seven clusters. Among these clusters, cluster 2 is assigned to all sets. This cluster 2 is the link cluster and the remaining six clusters are assigned to the two booklets.

Table 53: *An Example of Two Booklet Design for a Domain*

Booklet A	**Cluster 1**	**Cluster 2**	**Cluster 3**	**Cluster 4**
Booklet B	**Cluster 5**	**Cluster 2**	**Cluster 6**	**Cluster 7**

The same model is used for the assessment design across all grades and there are link clusters between grades to enable comparisons between them. It should be noted that all clusters have the same number of items in a grade. However, the number of items increases in a cluster as the grade level increases.

10.9 Student Testing Time

The testing time allocated for the administration of the items impacts the booklet design. It determines the number of items that can be administered on each student. For example, if the testing time allocated for a cognitive instrument is 40 minutes, it allows only a certain number of items in the domain to be administered. Generally, each item requires different span of time to answer and therefore, a number of items are grouped into clusters that have similar difficulty and similar testing time. These clusters are then assigned to different booklets.

In the NEA, testing time is allocated for administration (instructions, etc.), responding to the cognitive instrument and contextual questionnaire, as shown in Table 54. The instructional time shown is for both the cognitive instrument and contextual questionnaire.

Table 54: *Assessment Time for a Domain*

	Instructional time	Domain time	Questionnaire time	Total
Grade III	15 min	40 min	30 min	85 min
Grade VI	15 min	60 min	30 min	105 min
Grade IX	15 min	60 min	30 min	105 min

According to Table 54, each student of grade III needs a total of 85 minutes for a domain and contextual questionnaire where as students of grades VI and IX need 105 minutes.

For assessing each student in two domains, testing time increases by 55 minutes in grade III and 75 minutes in grades VI and IX. In this case, a minimum of 15 minutes break is provided to students between the first and the second domain. Total testing time in such a case is given in Table 55.

Table 55: *Assessment Time When a Student Takes Two Domains*

	Domain 1 Instructional time	Domain 1 time	Break	Domain 2 Instructional time	Domain 2 time	Questionnaire time	Total
Grade III	15 min	40 min	15 min	15 min	40 min	30 min	140 min
Grade VI	15 min	60 min	15 min	15 min	60 min	30 min	180 min
Grade IX	15 min	60 min	15 min	15 min	60 min	30 min	180 min

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ANNEXURES

1. BCSEA Team

	Name	Designation (NEA Project)	Agency
1	Jamyang Choeden	Project Director	BCSEA
2	Tshering Tenzing	Project Advisor	BCSEA
3	Kesang Deki Tshering	Project Advisor	SED, BCSEA
4	Sangay Tenzin	Project Administration and Management	AMD, BCSEA
5	Arjun Kumar Gurung	Project Manager/ Domain Expert - Mathematical literacy	AMD, BCSEA
6	Kinley Dema	Domain Expert - English Reading and Writing literacy	AMD, BCSEA
7	Sonam Lhamo	Domain Expert - Scientific literacy	AMD, BCSEA
8	Mani Dorji	Domain Expert - Dzongkha Reading and Writing literacy	AMD, BCSEA
9	Karma Jigme Lepcha	Data Manager	SED, BCSEA
10	Kezang Dema	Administrative Assistant	AMD, BCSEA
11	Bhim Kumar Pardhan	Project Accounts	BCSEA

2. Technical Team

	Name	Designation	Agency
A) English Reading and Writing Literacy			
1	Kinley Dema	Education Monitoring Officer	AMD, BCSEA
2	Sharda Rai	Subject Coordinator	SED, BCSEA
3	Amber Rai	Curriculum Developer	REC, Paro
4	Phub Dorji	Training Developer	REC, Paro
5	Ashtamurthy Killimangalam	Research Fellow	ACER, India
B) Mathematical Literacy			
1	Arjun Kumar Gurung	Principal Education Monitoring Officer	AMD, BCSEA
2	Geewanath Sharma	Curriculum Developer	REC, Paro
3	Tashi Dhendup	Curriculum Developer	REC, Paro
4	Anita Chhetri	Teacher	Changzamtog MSS, T/Throm
5	Tek Nath Kafley	Teacher	Shari HSS, Paro
6	Anu Radha Sharma	Research Fellow	ACER, India

C) Scientific Literacy			
1	Sonam Lhamo	Education Monitoring Officer	AMD, BCSEA
2	Surjay Lepcha	National Consultant	Freelance, Paro
3	Bhoj Raj Rai	Curriculum Specialist	REC, Paro
4	Dumcho Wangdi	Teacher	Bajo HSS, W/ phodrang
5	Sumitra Subba	Teacher	Shari HSS, Paro
6	Bikramjit Sen	Research Fellow	ACER, India
D) Dzongkha Reading and Writing Literacy			
1	Mani Dorji	Education Monitoring Officer	AMD, BCSEA
2	Sonam Tashi	Education Monitoring Officer	EMD, MoE
3	Loden Chozin	Subject Coordinator	SED, BCSEA
4	Pema Wangdi	Subject Coordinator	SED, BCSEA
5	Tenzin Dorji	Curriculum Specialist	REC, Paro
6	Dorji	Curriculum Developer	REC, Paro
7	Dechen Wangdi	Curriculum Developer	REC, Paro
8	Wangda Dorji	Curriculum Specialist	REC, Paro
9	Phub Wangdi	Vice Principal	Daga CS, Dagana
10	Dawa Chencho	Teacher	Shari HSS, Paro
E) Contextual Questionnaires			
1	Dr. Karma Utha	Assistant Professor	Samtse College of Education
2	Nar Bhadur Raika	Education Advisor	DAHE, MoE
3	Tashi Namgyal	CDEO	Thimphu Dzongkhag
4	Pedup Dukpa	Assistant Lecturer	JSW Law School
5	Yuden	Deputy Chief Research Officer	REC, Paro
6	Ugyen Dorji	Principal	Tendruk CS, Samtse
7	Sonam Palden	Senior Teacher	Drukgyel CS, Paro
8	Amber Rai	Curriculum Developer	REC, Paro
9	Phub Dorji	Training Developer	REC, Paro
10	Arjun Kumar Gurung	Principal Education Monitoring Officer	AMD, BCSEA
11	Kinley Dema	Education Monitoring Officer	AMD, BCSEA
12	Sonam Lhamo	Education Monitoring Officer	AMD, BCSEA
13	Sangay Tenzin	Chief Programme Officer	AMD, BCSEA
14	Dorjee Wangchuk	Education Monitoring Officer	AMD, BCSEA
15	Mani Dorji	Education Monitoring Officer	AMD, BCSEA

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F) Assessment of children with disabilities chapter			
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3	Sonam Lhamo	Education Monitoring Officer	AMD, BCSEA
4	Sangay Tenzin	Chief Programme Officer	AMD, BCSEA
5	Nyendo	Principal	Changangkha MSS
6	Pema Chogyel	Programme Officer	ECCD & SEN, MoE
7	Shriman Gurung	Subject Coordinator	SED, BCSEA
8	Bishnu Bakta Mishra	Education Officer	UNICEF, Bhutan
9	Sonam Pelden	Programme Coordinator	Save the Children, Bhutan
10	Karchung	Curriculum Developer	REC, Paro
11	Nidup	Teacher	Wangsel Institute
12	Ugyen Dorji	Principal	Tendruk CS
13	Anu Radha Sharma	Research Fellow	ACER, India
G) Item Developers (Dzongkha Reading Literacy)			
1	Mani Dorji	Education Monitoring Officer	AMD, BCSEA
2	Tenzin Dorji	Curriculum Specialist	REC, Paro
3	Pema Wangdi	Subject Coordinator	SED, BCSEA
4	Loden Chozin	Subject Coordinator	SED, BCSEA
5	Sonam Tashi	Education Monitoring Officer	EMD, MoE
6	Wangchuk	Teacher	Bjemina PS
7	Kinley Zangmo	Teacher	Bjemithangkha PS
8	Pem Dorji	Teacher	Gunitsawa PS
9	Karma Rinzin	Teacher	Bjibjokha LSS
H) Item Developers (English Reading Literacy)			
1	Kinley Dema	Education Monitoring Officer	AMD, BCSEA
2	Sharda Rai	Subject Coordinator	SED, BCSEA
3	Amber Rai	Curriculum Developer	REC, Paro
4	Phub Dorji	Training Developer	REC, Paro
5	Nima Dorji	Teacher	Sinchula PS
6	Pema Choden	Teacher	Bajo HSS
7	Sonam Yangden	Teacher	Katsho LSS

8	Tshedup Dema	Teacher	Gaupel LSS
9	Ashtamurthy Killimangalam	Research Fellow	ACER, India
I) Item Developers (Mathematical Literacy)			
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2	Geewanath Sharma	Curriculum Developer	REC, Paro
3	Tashi Dhendup	Curriculum Developer	REC, Paro
4	Pema Yangzom	Teacher	Tsimalakha LSS
5	Sonam Choden	Vice Principal	Tshaphel LSS
6	Prakash Gurung	Teacher	Sherabgatshel LSS
7	Leki Dorji	Teacher	Dewathang PS
8	Anu Radha Sharma	Research Fellow	ACER, India
j) Item Developers (Scientific Literacy)			
1	Sonam Lhamo	Education Monitoring Officer	AMD, BCSEA
2	Surjay Lepcha	National Consultant	Freelance, Paro
3	Wangchuk	Curriculum Developer	REC, Paro
4	Ganga Ram Chhetri	Teacher	Phuentsholing MSS
5	Jigme Zangpo	Teacher	Orong LSS
6	Dumcho Wangdi	Teacher	Bajo HSS
7	Sumitra Subba	Teacher	Shari HSS, Paro
8	Kinley Dorji	Subject Coordinator	SED, BCSEA
9	Bikramjit Sen	Research Fellow	ACER, India
K) NEAF General Chapters			
1	Karma Jigme Lepcha	Subject Coordinator	SED, BCSEA
2	Pedup Dukpa	Assistant Lecturer	JSW Law School
3	Tshering	Lecturer	SCE, RUB
4	Dorjee Wangchuk	Education Monitoring Officer	AMD, BCSEA
5	Sangay Tenzin	Chief Programme Officer	AMD, BCSEA
6	Amit Pathak	Research Fellow	ACER, India
7	Dr. Abha Bhagat	Research Fellow	ACER, India
8	Anit Cherian	Research Fellow	ACER, India
9	Mariya Mirza	Research Fellow	ACER, India

3. Stakeholder participants in the series of NEAF consultation

	Name	Designation	Agency
1	J.B Rai	Hon'ble Sherig Lyonpo	MoE
2	Karma Yeshey	Secretary	MoE
3	Karma Tshering	Director General	DSE, MoE
4	Dr. Will Parks	Representative	UNICEF, Bhutan
5	Yangka	Director, Academic Affairs	RUB
6	Kinga Dakpa	Director General	REC, Paro
7	Kinley Gyeltshen	Director	DoS, MoE
8	Man Bahadur Ghalley	Director	Save the Children, Bhutan
9	M.C. Sharma	Secretary General	CoBSE, India
10	Amit Kaushik	Chief Executive Officer	ACER, India
11	Tshering Cigay Dorji	Chief Executive Officer	Tech Park, Babesa
12	Urmila Sarkar	Education Adviser	ROSA, UNICEF
13	Natalia Mufel	Education Specialist	UNICEF, Bhutan
14	Frank Van Cappelle	Education Specialist	ROSA, UNICEF
15	Bishnu Bhakta Mishra	Education Officer	UNICEF, Bhutan
16	Sonam Pelden	Programme Coordinator	Save the Children, Bhutan
17	Baburam Sherpa	Education Advisor	DAHE, MoE
18	Phuntsho Lhamo	Education Advisor	MoE
19	Ngawang Dorji	Chief Dzongkhag Education Officer	Paro Dzongkhag
20	Sherab Phuntshok	Chief Programme Officer	ECCD & SEND, DSE, MoE
21	Dechen Dolkar	Principal	Nima HSS
22	Lhendup Dukpa	Unit Head	TPD, REC, Paro
23	Leki Phuntsho	Dy. Chief Human Resource Officer	TPSD, MoE
24	Yonten Jamtsho	Asst. Programme Officer	DPAB
25	Prakash Pradhan	Principal Counsellor	RENEW
26	Ugyen Thinley	Education Monitoring Officer	EMD, MoE
27	Lekema Dorji	Senior Programme Officer	GNHC
28	Kezang Choden	Country Manager	READ Bhutan
29	Rinchen Choden	Field Officer	READ Bhutan
30	Jigme Wangchuk	Editor	Kuensel, Bhutan

31	Tashi Deki	Programme Officer	YDF, MoE
32	Karma Dyenka	Education Manager	Save the Children, Bhutan
33	Tshering Penjor	Dy. Chief Programme Officer	SPCD, MoE
34	Binod Sunwar	Dy. Chief Planning Officer	PPD, MoE
35	Karma Norbu	Programme Officer	SEND, DSE, MoE
36	Chencho Wangdi	Programme Focal Person	ECCD & SEND, DSE, MoE
37	Karma Gayleg	Dy. Chief Programme Officer	ECCD & SEND, DSE, MoE
38	Karma Choden	Dy. Chief Programme Officer	ECCD & SEND, DSE, MoE
39	Nar Chhetri	MEAL Coordinator	Save the Children, Bhutan
40	Rinchen Dorji	Dy. Chief Programme Officer	TPSD, MoE
41	Sapna Subba	Subject Coordinator	SED, BCSEA
42	Sonam Gyeltshen	Sr. ICT Officer	BCSEA
43	Renuka Chettri	Subject Coordinator	SED, BCSEA
44	Dumcho Wangdi	Teacher	Bajothang HSS
45	Tshering Penjor	Deputy CDEO	Paro Dzongkhag
46	Sumitra Subba	Teacher	Shari HSS
47	Yeshey Lhamo	Vice Principal	Lamgong MSS
48	Phub Dorji	Teacher	Khasadrapchu MSS
49	Karma Tshering	Principal	Drukgyel CS
50	Chencho Tshering	Principal	Yoezerling HSS
51	Kharka Bahadur Monger	Sr. Teacher	Wangsel Institute
52	Suk Kumari Monger	Teacher	Wangsel Institute
53	Ugyen Pelmo	Teacher	Changangkha MSS
54	Thinley Wangchuk	Principal	Taju PS
55	Gyeltshen Dukpa	Principal	Doteng LSS
56	Sonam Wangdi	Teacher	Doteng LSS
57	Ugyen Tshering	Teacher	Gaupel LSS
58	Tshering Wangmo	Teacher	Taju PS
59	Khandu Gyem	Teacher	Shaba PS
60	Kezang Tshering	Vice Principal	Khangkhu MSS
61	Tashi Phuntsho	Teacher	Khangkhu MSS
62	Bakbir Rai	Principal	Shari HSS
63	Lhabu	Principal	Shaba PS

64	Sonam Wangmo	Vice Principal	Doteng LSS
65	Ugyen Thinley	Vice principal	Wangbama CS
66	H.J Subba	Offtg. Principal	Sisina PS
67	Tenzin Wangmo	Vice principal	Khasadrapchu MSS
68	Kencho	Vice principal	Kuzhugchen MSS
69	D.B Tamang	Principal	Chang Rigphel PS
70	Syel Denmo	Vice principal	Dr. Toggyel School
71	Cheku Wangchuk	Vice principal	Jigme Namgyel LSS
72	Yeshi Wangmo	Academic Head	Hongtsho PS
73	Karma Tshewang	Principal	Kuensel Phodrang PS
74	Lhagyal Tshering	Principal	Lungtenphu MSS
75	Baynu Gurung	Youth	Lungtenphu MSS
76	Jambay Dorji	Parent	Lungtenphu MSS
77	Mani Gyeltshen	Parent	Yangchenphu HSS
78	Yangchen T Gyeltshen	Youth	Yangchenphu HSS
79	Tshering	Parent	Lungtenzampa MSS
80	Karma Tashi Dendup	Student	Lungtenzampa MSS
81	Sherab Jamtsho	Teacher	Yangchen Gatshel MSS
82	Ugyen Dorji	Teacher	Tsheluna PS
83	Rudra Chhetri	Principal	Pelkhil School
84	Pem Dechen	Vice principal	Yangchenphu HSS
85	Tshering Zangmo T	Vice principal	Motithang HSS
86	Jigme Dorji	Vice principal	Thimphu PS
87	Sonam Tshering	Vice principal	Zilukha MSS
88	Sonam Pem	Teacher	Phuensum PS
89	Tshewang Choden Wangdi	Principal	Druk School
90	Ngawang Tshering	Teacher	Yum Thuji Zam Charity School
91	Kamal Hingmag	Vice principal	Dechencholing HSS
92	Sujana Pradhan	Teacher	Jigme Losel PS
93	Sherab Dema	Principal	Taba LSS
94	Tashi C Namgyel	Principal	Little Dragon PS
95	Mohan Rai	Offtg. Principal	Kelki HSS
96	Tshering Dorji	Principal	Babesa PS

97	Sangay Duba	Principal	Sunshine PS
98	Pem Thinley	Vice principal	Loselling MSS
99	Tshering Pema Sherpa	Teacher	Etho Metho PS
100	Ten Gyelmo	Vice principal	Changangkha MSS
101	Yeshey Tshogyal Loday	Youth	Zilnon Namgyelling LSS
102	M.B.Rai	Parent	Zilnon Namgyelling LSS
103	Tshering	Principal	Lingzhi PS
104	Tshering Gyalmo	Parent	Changangkha MSS
105	Tshering Euden	Youth	Changangkha MSS
106	Sonam Phuntsho	Principal	Zilnon Namgyelling LSS
107	Sangay Dorji	Principal	Jungzhina PS
108	Karma Lhazom	Consultant	READ Bhutan
109	Thinley Dendup	Youth	Babesa MSS
110	Kuvam Gurung	Youth	Changzamtog MSS
111	Tshering	Deputy CDEO	Tsirang Dzongkhag
112	Bhuwan Ghalley	Principal	Damphu CS
113	Chotey Wangchuk	Principal	Mendrelgang CS
114	Chuzang Norbu	Principal	Damphu LSS
115	Tshiltrim	Principal	Pemathang PS
116	Passang dukpa	Principal	Beteni PS
117	Tashi Wangchen	Principal	Barshong PS
118	Nidup Wangdi	Principal	Phuentenchu PS
119	Cheten Wangchuk	Principal	Shemjong PS
120	Dawa Penjor	Principal	Dunglagang PS
121	Cheku	Principal	Rangthangling PS
122	Sonam Tenzin	Principal	Tsholingkhar PS
123	Tek Bdr. Kharka	Principal	Salami PS
124	Sha Bdr. Subba	Principal	Sergithang PS
125	Yeshi	Principal	Tsirangtoe CS
126	Tobgyal	Offtg. Principal	Gosaling PS
127	Madhu Lal Biswa	Vice Principal	Damphu LSS
128	Namgay Lham	Vice Principal	Damphu LSS
129	C.B Tamang	Vice Principal	Damphu LSS

130	Dorji Phuntsho	Teacher-Incharge	Nimazor ECR
131	Bal Bdr. Ghalay	Cluster Lead Teacher	Mendrelgang CS
132	Prem Kumar Ghalley	Teacher	Damphu LSS
133	Karma Wangmo	Teacher	Damphu LSS
134	PP Timsina	Teacher	Damphu LSS
135	Chone Dolma	Teacher	Damphu LSS
136	Santosh Kumar Biswa	Teacher	Damphu CS
137	Tashi Yangzom	Teacher	Damphu CS
138	Bal Krishna Pokhrel	Teacher	Damphu LSS
139	Karma Tenzin	Teacher	Damphu LSS
140	Bhim Kumar Sharma	Teacher	Damphu CS
141	Bal Bdr. Tamang	Gup	Ranthangling Gewog
142	Ram Bdr. Kharki	Gup	Gosarling Gewog
143	Beda Moni Chamalagai	Gup	Kilkorthang Gewog
144	Nado Gyeltshen	Business Representative	Damphu Throm
145	Gopal Giri	Business Representative	Damphu Throm
146	Dil Kumar Rasaily	Parents Representative	Damphu Throm
147	Tendi Dorji	Parent Representative	Damphu Throm
148	Pema Kelden	Deputy CDEO	Chhukha Dzongkha
149	Kinley Gyaltshen	CDEO	Chhukha Dzongkha
150	Norbu Gyeltshen	Thromde Education Officer	Chhukha Dzongkha
151	Parshuram Chhetri	Principal	Chapcha PS
152	Tshewang	Principal	Phuentsholing MSS
153	Yangki Dem	Principal	Phuentsholing HSS
154	Dorji Tshering	Principal	Sonamgang MSS
155	R.K. Chhetri	Offtg.Principal	Phuentsholing LSS
156	Sonam Tshering	Principal	Shemagangkha PS
157	Nima Tshering	Principal	Paga PS
158	Karma Wangchuk	Principal	Arekha MSS
159	Rinzin Wangdi	Principal	Chungkha PS
160	Dorji Tshering	Principal	Getana PS
161	Chheoku Dorji	Principal	Tashilakha PS
162	Duba Tshering	Principal	Tsimakha PSS

163	Kinley Dorji	Vice Principal	Chongaykha PS
164	Tashi Lungmo	Offtg. Principal	Lobneykha PS
165	Nima Dorji	Principal	Pachu PS
166	Dorji Wangdi	Principal	Dungna LSS
167	Dorji Tshering	Principal	Logchina LSS
168	Gangchuk	Principal	Rangaytung PS
169	Tshering	Offtg. Principal	Metakha PS
170	Tobgay	Offtg. Principal	Lingden PS
171	Phub Gyaltshen	Principal	Norbu Academy
172	Ugyen Dorji	Principal	Wangdigatshel LSS
173	Kinzang Wangdi	Principal	Chumigthang MSS
174	Ugyen Tshering	Offtg. Principal	Kezari PS
175	Lhendup Gyeltshen	Offtg. Principal	Meretsemo PS
176	Thukten Jigme	Offtg. Principal	Baikunza PS
177	Yeshey Tsheltrim	Offtg. Principal	Chimuna PS
178	Dawa Phuntsho	Principal	Sinchula PS
179	Tashi Tobgay	Offtg. Principal	Ketokha PS
180	Leela Bdr. Thapa	Principal	Pakshikha CS
181	Namgyal Dorji	Offtg. Principal	Khatoeykha PS
182	Aika Gurung	Principal	Alaykha PS
183	Pema Rinchen	Principal	Kamji CS
184	Ten Dorji	Principal	Rinchenling PS
185	Dhan Singh Tamang	Principal	Wangchuk MSS
186	Phuntsho Tashi	Principal	Tsimalakha LSS
187	Karna Chamling	Principal	Tashi Gatshel LSS
188	Tshering Choda	Principal	Gedu HSS
189	Tshering	Principal	Darla MSS
190	Dinakar Dhungana	Principal	Bongo PS
191	Thinley Dorji	CDEO	Sarpang Dzongkhag
192	Thinley Dorji	Principal	Jigmeling LSS
193	Tshegyal Dawa	Principal	Choekhorling MSS
194	Rinchen Dorji	Principal	Sarpang MSS
195	Rigzin Dorji	Vice Principal	Sarpang MSS

196	Tshering Samdrup	Principal	Singay PS
197	Tashi Wangdi	Principal	Serzhong PS
198	Leki Wangdi	Principal	Norbuling CS
199	Kencho Tshering	Principal	Dekiling MSS
200	Somnath Darjee	Principal	Gakidling PS
201	Dorji Gyeltshen	Principal	Retey PS
202	Sonam Wangchuk	Principal	Jangchubling MSS
203	Duptho Ugyen	Principal	Lharing PS
204	Rinzin Dorji	Principal	Samtenling PS
205	Lungten Jatsho	Principal	Dechenpelri PS
206	Dorji	Principal	Taraythang PS
207	Sangay	Principal	Chuzagang PS
208	Dophu	Teacher	Pelrithang HSS
209	Tashi Wangmo	Teacher	Pelrithang HSS
210	G.S Dhungana	Teacher	Pelrithang HSS
211	Chenga Dawa	Principal	Pelrithang HSS
212	Bishnu Maya Gurung	Principal	Gelephu LSS
213	Wangmo	Principal	Gelephu MSS
214	Bal Bdr.Gurung	Teacher	Pelrithang HSS
215	N P Chamlagai	Principal	Lhayul PS
216	Kezang Gyeltshen	Principal	Umling PS
217	Sherab Dorji	Principal	Jigmecholing MSS
218	Tashi	Deputy CDEO	Wamrong, Trashigang
219	Jigme Tenzin	Offtg. Principal	Thungkhar LSS
220	Kencho Tashi	Offtg. Principal	Pasaphu PS
221	Lhacha Wangdi	Offtg. Principal	Chiya PS
222	Tshering	Offtg. Principal	Jerelemi PS
223	Tshewang Gyeltshen	Offtg. Principal	Zordung PS
224	Kinley Namgay	Principal	Brekha PS
225	Kuenzang Dorji	Offtg. Principal	Phegpari PS
226	Kinzang Dorji	Principal	Tsangpo PS
227	Sither Dendup	Principal	Udzorong CS
228	Pem Dorji	Offtg. Principal	Barshong PS

229	Ugyen	Principal	Tashitse HSS
230	Dorji Wangdrup	Principal	Muenselling Instiute, Khaling
231	Tsheten Tshering	Principal	Thrimshing CS
232	Sangay Dorji	Principal	Kangpar LSS
233	Tashi Phuntsho	Offtg. Principal	Lumang PS
234	Sither Dendup	Offtg. Principal	Berdungma PS
235	Sherab Lhendup	Principal	Moshi PS
236	Tshering Nidup	Offtg. Principal	Jomtshang PS
237	Sherab Dorji	Offtg. Principal	Benshingmo PS
238	Norbu Gyeltshen	Principal	Kurchilo PS
239	Karma Tshewang	Offtg. Principal	Tshogonpa PS
240	Sonam Jigme	Principal	Wamrong LSS
241	Cheten Duba	Offtg. Principal	Dungmaba PS
242	Tsheten Tshering	Asst. Principal	Khaling LSS
243	Phuntsho	CDEO	Trashigang Dzongkhag
244	Sonam Choden	Deputy CDEO	Trashigang Dzongkhag
245	Dorji	Deputy CDEO	Trashigang Dzongkhag
246	Namgay	Offtg. Principal	Phongmey LSS
247	Zung Dorji	Principal	Merak PS
248	Thinley Dorji	Principal	Yangneer PS
249	Dorji Hidu	Principal	Saling PS
250	Kezang Duba	Offtg. Principal	Daliphangma PS
251	Kesang Wangchuk	Principal	Trashigang MSS
252	Sangay Chogyel	Principal	Galing PS
253	Sangay Dorji	Principal	Kanglung PS
254	Tashi Wangdi	Principal	Bartsham PS
255	Kunzang Duba	Principal	Rangjung PS
256	Tshewang Namgay	Offtg. Principal	Thongrong PS
257	Pema Dorji	Principal	Yabrang PS
258	Pema Chedup	Offtg. Principal	Yin Gom PS
259	Jigme Tenzin	Offtg. Principal	Thrakthrik ECR
260	Lobzang Lhendup	Offtg. Principal	Rangshikhar ECR
261	Yeshey Dorji	Principal	Joenkhar PS

262	Chimi	Principal	Ritsangdung PS
263	Neten Tshering	Principal	Rongthong PS
264	Sonam Gyeltshen	Principal	Changmey PS
265	Jigme Rinchen	Vice Principal	Bikhar LSS
266	Chewang Dorji	Principal	Gongthung MSS
267	Tshering Darjay	Principal	Yonphula LSS
268	Samdrup Gyalpo	Principal	Sakteng LSS
269	Kuenzang Choida	Principal	Chaling PS
270	Chimi Tshewang	Principal	Bidung LSS
271	Langa Dorji	Principal	Trashigang PS
272	Jimba Tharchen	Offtg. Principal	Pakaling PS
273	Sonam Jigme	Vice Principal	Radhi MSS
274	Kelzang Tenzin	Principal	Pam PS
275	Chada Jamtsho	Deputy CDEO	Trashiyangtse Dzongkhag
276	Rinchen Phuntsho	Deputy CDEO	Trashiyangtse Dzongkhag
277	Sonam Wangda	Offtg. Principal	Jangphutse PS
278	Gyelpo Sherpa	Principal	Kheni LSS
279	K.B Sinchuri	Principal	Khamdang LSS
280	Ugyen Penjor	Principal	Tsangphuchen PS
281	Dawa Gyeltshen	Offtg. Principal	Gangkhar PS
282	Karma Chojur	Offtg. Principal	Tshaling PS
283	Chencho Tshering	Principal	Chakidemi PS
284	Kinzang Wangdi	Offtg. Principal	Yallang PS
285	Ranbir Tamang	Principal	Bumdiling LSS
286	Ugyen Palden	Principal	Thragom LSS
287	Leki Gyeltshen	Offtg. Principal	Melongkhar PS
288	Samten Dorji	Principal	Jamkhar PS
289	Karchung	Offtg. Principal	Tsenkharla CS
290	Tenzin Wangchuk	Vice Principal	Ramjar MSS
291	Sonam	Offtg. Principal	Dukti PS
292	Leki Tshering	Offtg. Principal	Wamanang PS
293	Thinley Gyeltshen	Principal	Tarphel PS
294	Tshewang Sither	Principal	Langmadung PS

295	Sonam Wangchuk	Principal	Rabtey PS
296	Nima	Principal	Pangtoka PS
297	Nima Gyeltshen	Principal	Tokaphu PS
298	Phurpa	Principal	Doksum PS
299	Cheten Pelzang	Principal	Shali PS
300	Wangchuk	Offtg. Principal	Tongmeyjangsa PS
301	Phuntsho	Offtg. Principal	Shingkhar PS
302	Cheten Tashi	Offtg. Principal	Lichen PS
303	Tashi Phuntsho	Principal	Trashiyangtse LSS
304	Cheki Wangchuk	Adm Asst.	Trashiyangste Dzongkhag
305	Pema Selden	Adm Asst.	Trashiyangste Dzongkhag
306	Choney Dorji	Deputy CDEO	Bumthang Dzongkhag
307	Sonam Wangdi	Principal	Tang CS
308	Sonam Gyeltshen	Principal	Chumey CS
309	Chhimi Dhendup	Principal	Ura CS
310	Dechen Loday	Principal	Gangrithang PS
311	Sonam Gyeltshen	Principal	Kharsa PS
312	Yeshi Samdrup	Principal	Khangrab PS
313	Sonam Dargay	Principal	Dhur PS
314	Jatsho	Principal	Wangdicholing LSS
315	Karma Tshering	Principal	Zangtherpo PS
316	Taw Tshering	Principal	Choekhortoe PS
317	Tara Nida Chettri	Principal	Chungphel PS
318	Thukten Tshering	Principal	Jigmeling PS
319	Tandin	Principal	Shingnyer PS
320	Ugyen Tshering	Principal	Zungnye PS
321	Gyempo Tsheten	Principal	Gaytsa PS
322	Kezang Penjor	Principal	Tangsibi PS
323	Ugyen Thinley	Deputy CDEO	Monggar Dzongkhag
324	Sherab Gyeltshen	Deputy CDEO	Monggar Dzongkhag
325	Ugyen Rinzin	Deputy CDEO	Monggar Dzongkhag
326	Tashi Samdrup	Teacher	Lingkhar ECR
327	Ngawang Dendup	Teacher	Jaibab ECR

328	Neten Lhamo	Principal	Gyalpozhing HSS
329	Akal Kumar Allay	Principal	Lingmethang LSS
330	Tenzin Wangchuk	Principal	Jurmey PS
331	Pema Thinley	Offtg. Principal	Sengor PS
332	Som Bdr Maya	Principal	Nagor MSS
333	Deki Choden	Teacher	Tsamang PS
334	Tempa Dorji	Principal	Kalapang PS
335	Dawa	Incharge	Woop ECR
336	Kinzang Wangdi	Principal	Baging PS
337	Tshewang Lhamo	Teacher	Balam PS
338	Phub Dem	Teacher	Waichur ECR
339	Rinchen Lhamo	Teacher	Resa ECR
340	Chedra Jamtsho	Teacher	Ganglapong ECR
341	Nima Dema	Teacher	Konbar PS
342	Leki Yangzom	Teacher	Tshenzibi ECR
343	Genpo	Teacher	Daksa PS
344	Ugyen Choeda	Principal	Ngatshang PS
345	Yeshey Dorji	Teacher	Saling ECR
346	Phuntsho Wangdi	Vice Principal	Chaskhar CS
347	Sangay Dorji	Principal	Monggar MSS
348	Sangay Tashi	Principal	Soenakhar PS
349	Sangay Dorji	Teacher	Pam ECR
350	Tandin Tshering	Teacher	Pangthang PS
351	Pema Rinzin	Principal	Kidheykhar CS
352	Palden Dorji	Principal	Narang PS
353	Karma Singye	Principal	Thangrong PS
354	Ugyen	Principal	Bumpazor PS
355	Tashi Wangdi	Principal	Tsakaling PS
356	Kuenga	Principal	Kengkhar MSS
357	Tashi Tenzin	Principal	Zunglen PS
358	Kinley Dorji	Principal	Ridaza PS
359	Singye	Principal	Chali LSS
360	Karma Tashi	Teacher Incharge	Yaragla ECR

361	Sangay Lathro	Teacher Incharge	Udaric PS
362	Leki Dorji	Teacher Incharge	Thrindangbi PS
363	Ngajay Tshering	Teacher Incharge	Muhung ECR
364	Phub Tshering	Principal	Broksar ECR
365	Jamtsho	Vice Principal	Yadi CS
366	Pema Wangchuk	Principal	Yadi CS
367	Choeki Gyaltshen	Principal	Serzhong LSS
368	Kencho Wangdi	Deputy CDEO	Wangdue Dzongkhag
369	Pema Dorji	CDEO	Wangdue Dzongkhag
370	Pema Rinzin	Principal	Shataksha PS
371	Namgay Wangchuk	Principal	Singye Namgay PS
372	Pasupati Chapagai	Principal	Kazhi PS
373	Jamyang Dorji	Principal	Dangchu PS
374	Sherub Gyeltshen	Principal	Puensum Deki PS
375	Ugyen Phuntsho	Principal	Bjena PS
376	Tshering Lhendup	Principal	Bjimthangkha PS
377	Nima Dorji	Principal	Rinchegang PS
378	Norbu	Principal	Nobding LSS
379	Jurmey Dukpa	Principal	Tencholing PS
380	Leki Wangdi	Principal	Hebesa PS
381	Kuenga Tenzin	Principal	Phobjikha CS
382	Yeshi Jamtsho	Principal	Rameychen PS
383	Tashi Phuntsho	Principal	Samtengang PS
384	Sangay Jamba	Principal	Gaselo PS
385	Khandu	Principal	Patakha PS
386	Tshering Dorji	Principal	Beyta PS
387	Bal Bdr. Darjee	Principal	Sephu PS
388	Aita Raj Hingmang	Principal	Rukubji PS
389	Tshewang Thinley	Principal	Khotokha PS
390	Namgay Dorji	Principal	Wangdue PS
391	Khandu	Principal	Nahi PS
392	Kencho Wangdi	Principal	Rubesa PS
393	Phub Dem	Principal	Jala PS

394	Dorji Wangdi	Principal	Uma PS
395	Reena Thapa	Chief Programme Officer	ECCD, DYS, MoE
396	Choening Sherab	Sr. Programme Officer	SHND, MoE
397	Tsheyang Tshomo	Chief ICT Officer	ICTD, MoE
398	Jigme Choden	Sr. ICT Officer	ICTD, MoE
399	Kinley Gyeltshen	Chief Programme Officer	SPCD, MoE
400	Tshering Zangmo	Teacher	Khangkhu MSS
401	Choki Dema	Teacher	Khangkhu MSS
402	Krishna K	Consultant	Big.Yan Consulty, Thimphu
403	Karma Norbu	Programme Officer	SEN, MoE
404	Karma Tshering	Principal	Druukgyel CS
405	Bak Bir Rai	Principal	Shari HSS
406	Chencho Tshering	Principal	Yoezerling HSS
407	Rinchen Dorji	Dy. Chief Programme Officer	TPSD, MoE
408	Ngawang Dorji	CDEO	Paro Dzongkhag
409	Dorji Tshewang	Curriculum Specialist	REC, Paro
410	Yeshi Dorji	Education Monitoring Officer	EMD, MoE

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