

4.7. INDIGENOUS MEASURING UNITS

4.7.1. Measurement of Weight

Almost every household owns a measuring bowl called *dre* (*bre*) mainly used for transactions of grains for the purpose of paying tax (in kind), bartering, sales and loans. Dre is a cylindrical vessel of about 11cm high and 16 cm in diameter made of bamboo and wood. As the bowl made of bamboo differed in sizes, the Royal Government made a standard one and distributed to all households in the 1960s. There is a smaller version of the bowl called *phueta* (*phud-ta*) about one-fifth of the dre in capacity. In Tshangla dialect dre is called *khaw* and phueta is called *lamshu*.

Some are plain bamboo with wooden base while others are decorated with brass, copper or metal bands on the edges. Some especially the dre has leather strap with a metal or bamboo ring attached so that it is hung onto a peg or nail when not in use. Dre is still in use for selling rice and flour by farmers in the market.

Types of Dre

There are five different types of *dre* used for measuring grains:

- i) **Chag dre** (metal vessel): one *cha dre* is equivalent to five *phutas* of grain.
- ii) **Toe dre** (from Toebesa): one *toe dre* is equal to four *phutas* of grain.
- iii) **Tsho dre**: it is usually used by the monks in the dzongs. It can contain four *phutas* of grain.

- iv) **Pa dre**: it is a dre from Paro and is of two types, *Dru dre* and *Thob dre*. *Dru dre* has the capacity of six *phueta* is the standard dre to paying debts to the government and payment of wage for the labour. *Thob dre* contains seven *phueta*s and is the standard dre when borrowing grain.
- v) **Gyaltsi Kharlowa**: this is a standard *dre* supplied by the Ministry of Finance to resolve the problem of different standards used in different regions of the country in the past. One *gyaltsi kharlowa (dre)* is equivalent to five *phueta*s.

One phuta is equivalent to 333 grams while one dre is equivalent to 1.67 kilos.

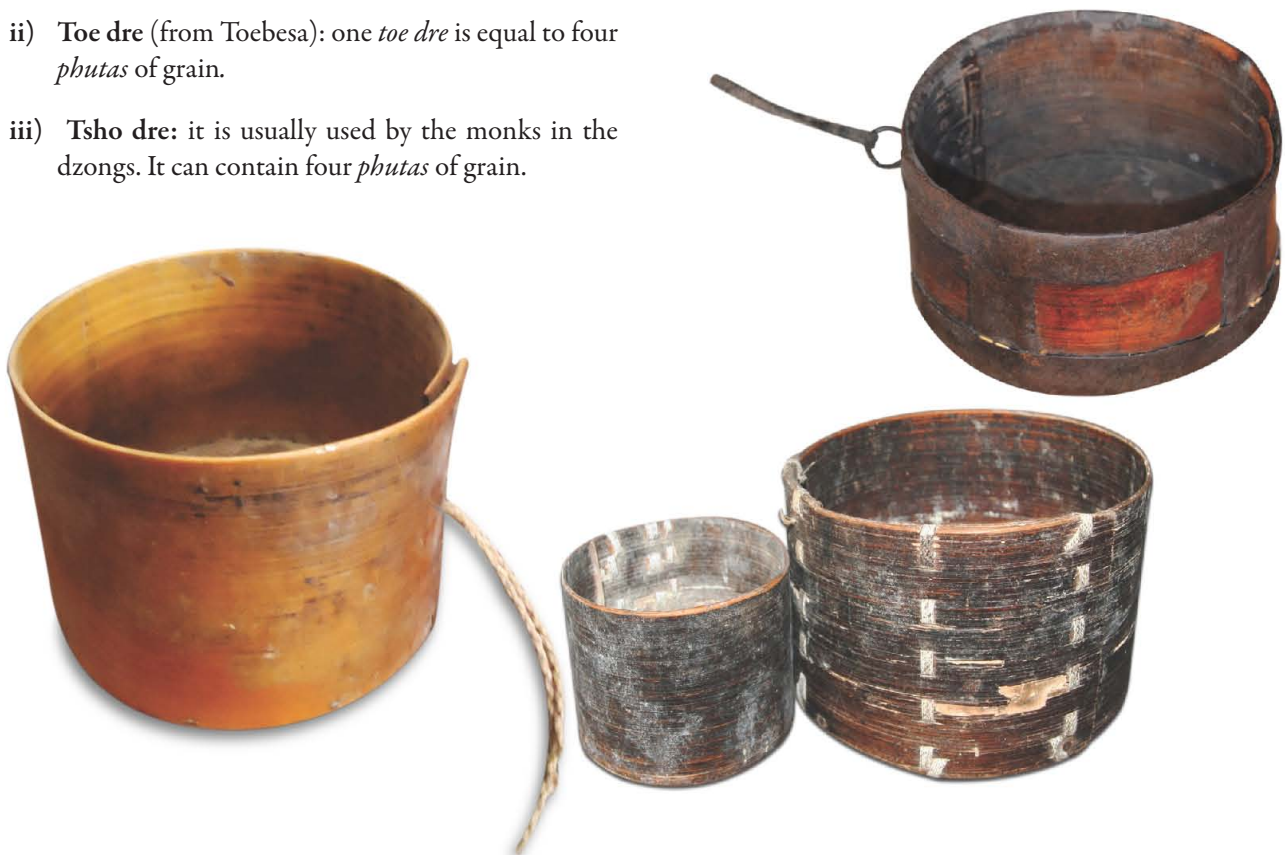
The following are the standard system of calculation using the dre.

20 dre equivalent to dre khey chig (20 dre of grains)

20 dre khey is equivalent to nyi shu chig (400 dre of grains)

20 nyi shu is equivalent to kheychen chig (800 dre of grains)

20 kheychen is equivalent to yangchen chig (16000 dre of grain)



Weighing Scale

Sang and *Goe* are the standard weighing scales used in olden days. They are used even to this day in villages.

Sang: It is a weighing scale used for weighing small amount of substance like butter, meat, vegetable, wool and yarn. Its unit is roughly equivalent to 333 grams.

3 Sang = 1 kilogram (3:1).

Goe: This is another scale used for weighing larger amounts of grain, meat, butter, and cheese. One *goe* is equal to six *sang*.

1 *Goe* = 2 kilogram.

These scales are with a stick with notches cut into it to indicate the amount of measurement. A stone or a piece of metal is stitched into leather pocket and attached a leather strap (like the hammer throw in Olympic Games) which is suspended on a metal ring which can be moved back and forth between the notches. A piece of square shaped leather has its four corners joined to four thin leather straps that are

fixed at one end of the stick. To weigh, one places the object in the square leather container and moves the ring that bears the weight of the stone back and forth till the stick holds steady in a horizontal position. The point or notch on which the ring has landed shows the weight of the object. If the ring stays between two notches, the object of measurement are either added or taken away. Today, this instrument is hardly used due to the availability of more accurate weighing instruments.

Tiru Sangchung: It is a traditional scale used by silversmiths for weighing gold, silver, brass, and copper. It is made of metal and comparatively smaller in size than *sang*. Locally the weight of any metal equal to 11.66 grams is called one *tiru* or one *tola*.

4.7.2. Measurement of Time

In olden days, calendars, watches and clocks were hardly known or heard, yet the precision of time was an important factor to carry out auspicious activities. Thus, they solely depended on the position of the sun in the sky, and the sounds of animals and birds.

