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Why should we go Metric ?

The Metric System of measurements will facilitate standardisation of products. More importantly it eliminates cumbersome calculations and the need for remembering complicated conversion factors A.H. KHAN writes on the Metric System planned to be introduced in the country by 1982.

A team of French scientists conceived and developed the Metric System during the end of eighteenth century, while their principal motivation was to rationalise the then existing variety of measurement systems.

In 1970 the French Constituent Assembly entrusted to the French Academy of Sciences the task of establishing a measuring system which could be accepted by the whole world. Thus two physical prototype standards, both in platinum, were constructed — one for the metre and one for the kilogram and these were deposited in the archives of the French Republic in 1799. All the multiples and submultiples of these basic units were to be integral powers of ten.

In 1875 a convention du mitre was signed by 18 states. Thus the signatory states bound themselves to setup and maintain at common expense a permanent scientific body of Weights and Measures at Paris which was known as Bureau International des Poids et Measures (BIPM).

In India during the British Rule, "The Bengal Committee" recommended the adoption of the Metric System in 1868. This recommendation was not accepted by the then Governor General. However, the Governor General appointed a central committee to decide the best method of dealing with this question.

Col. Richard Strachey, a fellow of the Royal Society who was a member of the Legislative Assembly, was appointed president of this central committee. Col. R. Strachey supported the proposal of the Bengal Committee in his memorandum of 1st October, 1867.

In his report, he stated inter alia, "Basic therefore; is it likely that the present English system of weights will last indefinitely ? My reply is that I do not believe that it will so last. The conclusion seems unavoidable that before long the French weights and measures must be accepted in England. On these grounds, I cannot avoid the conclusion that if any attempt be made to introduce uniformity of weights in India, we should at once adopt the French unit and take kilogram as the basis of the new system — a proposal already put forward by the Bengal Committee."

The central committee rejected the proposal of Col. Strachey; and felt that the first point it has to decide was; "whether the new standards of a uniform system for British India should be English or French". The Committee considered the possibility of England adopting the metric system and came to the conclusion — "The abandonment by England of her own system in favour of metric is most remote, if it can be allowed to be at all a possible contingency".

The next point the central committee considered was the proposal to adopt the new system on its own metrits. Though the committee clearly admitted the superiority of the new system, yet it rejected it on purely political considerations. Quoting from the Report, "The Committee are fully sensible of the beauty and symmetry of the metric system. It is not perfect, but it is the best that has been yet adopted to any extent and if India (British) had no connection with any other country much might be advanced for the introduction of that system in preference to any other. India is dependent on England, her trade with England and with countries using English System is ten times as great as her trade with countries using metric weights; and for the convenience of her foreign trade alone, it is clearly that it is with the English System that her weights and measures should be assimilated. It is essential, that India should be linked as closely as possible with the ruling power".

India after independence switched over to the decimal system of coinage in April 1957. The standards of weights and measured Act, 1956, ultimately accepted metric system for India. It took nearly ten years transition period to switch over.

The Bengal Committee about hundred years ago took the initiative, but unfortunately Bangladesh is still following English System including nearly 2500 years old irrational and noncoherent system of weights and measures, though England herself has abandoned her own system finally in 1975 in favour of the French System i.e. Metric System.

So obvious are the advantages of the metric system that nearly 90 per cent of the nations of the world have adopted and the remaining have committed to adopt this system.

The system simplifies the work in all the fields of activities, by eliminating unnecessary factors which are at present committed to memory. The system is uniform and coherent.

It also utilises a consistent system of prefixes to designate multiples and sub-multiples of its base units such as "deca" equals multiplication by 10 "hecto" equals multiplication by 100, "kilo" equals multiplication by 1'00, "deci" equals division by 10, "cenit" equals division by 100 and "milli" equals division by 1000.

The metric system is a coherent system i.e. the product or quotient of any two or more base units is the derived unit of the resultant quantity.

The General conference on Weights and Measures has steadily extended and refined the metric system. In 1960 the conference adopted the International System of Units (SI units). At present there are only seven base units for measurement and two supplementary units.

All other units are derived from these seven base units. In the Imperial system there are nearly 52 denominate units of measure and there is no definite pattern in the relationship.

About 90 per cent of world population uses or is converting to this system. The U.K. intends to switch over to metric as soon as possible. The USA and Canada have committed to a switch-over. The change in this system in commerce, industry, science and education appears inevitable because the world is rapidly becoming a close-knit society and Bangladesh cannot afford to remain in isolation. Bangladesh really has no other choices but adopt metric system.

The English/Imperial system was established in the subcontinent by the British during its rule. Now England has already abandoned the English system in favour of the metric system. Metric measure is now used in medicine, our pharmacetical industries are using this system. In fact many other industry such as Savar Dairy Farm is selling milk in metric system i.e. in litre. Whenever we import any item, we have to specify unit for example, at present we must specify whether it is long ton (ie. imperial ton 2210 lbs) or short ton i.e. US ton, 2000 lbs or metric ton i.e. 2205 lbs. Otherwise ambiguity will prevail similarly Imperial Gallon, U.S. Gallon (1 imp-gallon = 1.2 U.S. gallon).

Metric System has decimal characteristics. The multiples or sub-multiples of 10 are utilised to obtain larger or smaller units. For example, the base unit of length is metre. The smaller units of length frequently used are centimetre and millimetre and the larger unit is kilometre. "The base unit metre" is easily converted to centimetre by dividing it by 100, similarly millimetre by 1000 and kilometre is obtained by multiplying metre by 1000. We need not remember lot of different names like inch, foot, yard, chain, furlong and mile and unnecessary irrational factors like 8 720, 3 and 12 as is the case in the imperial system.

Rational factors :-
1 kilometre = 100 metre
1 metre = 100 centimetre
1 centimetre = 10 millimetre
Irrational factors :-
1 mile = 8 furlongs
1 furlong = 220 yards
1 yard = 3 feet
1 foot = 12 inches

In the metric system, none has to tax his memory for remembering irrational factors. Conversion of value to higher or smaller units in the metric system becomes just a child's play e.g., 2599 metre is equal to 2.599 kilometre which is obtained just by putting a decimal point after three places counting from left and this amounts to division by 1000 only. It would surely be cumbersome to convert 2599 yards into miles which would require division by 1760 (1 mile = 1760 yards)

You are aware that our currency is decimally based i.e. in metric system. The metric units of weights and measures will make price calculation very easy. To illustrate, if a cloth costs 20 taka a metre; a centimetre will cost 20 paisa only. In the imperial system, if a yard would costs 20 taka; for one inch, one has to divide 20 by 36 i. e. a fraction 5/9 taka. Thus the advantage is obvious.

Finally it may be concluded that the metric system offers the following advantages:-

1) The system offers a simple method to communicate measurements.
2) It achieves a high degree of accuracy in all measurements.
3) It lays down a basis for deriving all other units from base units in a coherent way, necessary in science, technology and everyday life.
4) It has precisely the same significance in every country.
5) It relates rationally all measures.
6) It offers an opportunity to standardize.

It is therefore, imperative for all of us to propagate in favour of metric system which will ultimately lead to SI-units.

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