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India's position paper on the ISO standard on carbon footprint of products

1. Introduction

1.1 The International Organisation of Standardisation (ISO) established an '*Environment Management*' Technical Committee, named as *ISO/TC 207*. Under this Technical Committee, there is a '*Greenhouse Gas Management and related activities*' Subcommittee, named as *ISO/TC 207/SC 7*. The Sub Committee has undertaken a Project for the development of ISO Standard on Carbon Footprint of Products (CFP), and, therefore, has established a Working Group, named *ISO/TC 207/SC 7/WG 2*. This Working Group has till date circulated 4 versions of the draft ISO Standard, the latest version being "*ISO/DIS 14067 Carbon footprint of products — Requirements and guidelines for quantification and communication*", which is in the form of a draft international standard (DIS) at the Enquiry Stage (40.20) of the ISO. The voting for the DIS is open to all ISO Members with a deadline of 6 June, 2012. This latest version of the ISO draft standard on carbon footprint of products (ISO/DIS 14067) has the following features:

1.1.1 It seeks to quantify and communicate the carbon footprint of products based on the GHG emissions and removals over the life cycle of the product.

1.1.2 The quantification is expressed through net global warming impact in carbon-dioxide (CO₂) equivalent.

1.1.3 It is based on the product life cycle analysis (LCA) which comprises 4 stages, namely goal and scope definition; inventory analysis; impact assessment; and interpretation.

2 Issues of concern

2.1 The draft standard raises some serious concerns including from the perspective of trade in products and services. These are:

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2.1.1 The standard is focused on a single potential environmental impact namely global warming and ignores other potential important environmental impacts such as resource depletion; effect on water, soil and air; human safety and health. Further, within the mechanism of climate change, the environmental impacts include global warming, rise in sea levels etc. Thus it is unable to provide a holistic picture on the environmental impact of the product in question. This can be better explained through the following examples:

2.1.1.1 *Example 1: In agriculture sector, sole consideration of carbon footprint without considering the Nitrogen footprint would be detrimental to environmental and food security issues. Encouraging sub-soil usage of fertilizers for the reduction of nitrous oxide (GHG) emissions from agriculture soils during crop production, would lead to enhanced leaching of nitrates to groundwater.*

2.1.1.2 *Example 2: Though carbon footprint of CFL (compact fluorescent) lamps is less in comparison with any other lamps, the environmental impact CFL lamps create at disposal stage is much serious (as it contains Mercury). In this case, control of contamination of land due to mercury in CFL is a complicated and issue more serious than control of greenhouse gases.*

2.1.2 The quantification is based on product life cycle assessment (LCA), which is described in ISO 14040 series of standards and has its inherent limitations. Clause 4.1 of ISO 14044:20066 admits that "there is no scientific basis for reducing LCA results to a single overall score or number". Further, it also admits that LCA addresses only potential environmental impacts and does not predict absolute or precise environmental impacts.

2.1.3 The limitations of LCA are on account of the establishment of functional unit and system boundaries, formulation of allocation rules, making of assumptions regarding the transport, user behavior and end-of-life scenarios, selection of data sources, assumptions and tradeoffs etc. The limitations with each of these factors are as under:

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- 2.1.3.1 *System boundaries*: The draft standard is subjective since it permits the computation of CFP based on either the full life cycle, partial life cycle (with scope for selection of processes that may be excluded/ included) or even the deletion of life cycle stages, processes, inputs or outputs.
- 2.1.3.2 *Rules of allocation*: The manufacturer has the discretion to allocate the extent of resources used and the emissions. In the absence of product category rules (PCRs) on a national or international basis, this problem is compounded.
- 2.1.3.3 *Data quality*: CFP variations could be large given the choice to manufacturers to select from a wide array of primary data, secondary data, non harmonized PCRs, national inventories, other generic sources, calculated or other representative data, sector specific standards etc.
- 2.1.3.4 *End of life scenario*: The manufacturer can model the CFP study either on "*use scenario of product*" or "*end of life stage of product*" based on the PCRs, published international standards or national guidelines, market usage profiles etc; all of which may have wide variations. The standard also has a disturbing feature where an important phase, namely the use phase of a product may be excluded in the quantification of CFP.
- 2.1.3.5 *Transportation*: While computing CFP based on transportation of the product; some of the variations could exist in the driving style, vehicle efficiency, type of fuel, load etc which could vary for even the same manufacturer on a batch to batch basis.
- 2.1.3.6 *Assumptions and tradeoffs*: In cases of uncertain data, assumptions are made for building a model for analysis while tradeoffs could

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lead to foregoing some issues that may seem insignificant. Both these parameters may not capture the true CFP of the product.

2.1.4 These clearly point to the possibility of wide variations and uncertainty in the computation of the CFP of a product. Rather than facilitating, it could mislead all stakeholders like consumers, manufacturers and traders. All it would do is "greenwash" the consumers into a false notion.

2.1.5 Clause 5.2 of the 2nd version of draft ISO Standard, ISO/CD 14067 Part 2, had cautioned that conveying Carbon Footprint numbers to consumers is not advisable. The relevant portion of Clause 5.2 that was present in the second version of the draft Standard is reproduced below:

"Conveying single CF numbers to consumers is not advisable and will be misleading and unfair to businesses for two main reasons:
- CF assessment methods are still being developed and CF product group requirements (CF-PGR) used as common tools for assessments are still relatively scarce;
- consumers still do not have the awareness and knowledge to appreciate what single CF numbers stand for and may therefore unjustly discriminate between products based on inaccurate communication."

This implies that the present attempt of developing an ISO Standard on Carbon Footprint of Products is not sufficiently mature for CFP communications to consumers and would promote manufacturers to use the ISO Standard to make misleading claims and would promote unfair trade practices. Strangely, even though there has been no change in the situation, the above clause has been removed from ISO/DIS 14067, which is to be voted upon. Moreover, the values of CFP have a high level of uncertainty with variations ranging from 50% to 300%.

2.1.6 The use of environmental parameters as a potential trade tool for imposing non tariff barriers is also a source of concern, especially when it is not based on objective parameters.

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2.1.7 ISO/DIS 14067 provides requirements for quantification and communication of Partial Carbon Footprint, which may be from gate to gate or gate to grave. The communication of CFP may be misleading to a consumer in case one organization communicates CFP taking into account all processes from cradle to grave and the other communicates CFP taking into account only gate to gate.

3. Trade related Disclaimer

3.1 Based on these considerations above, India along with other P-Members like Argentina, China, Colombia, Lebanon, Mexico, Singapore, South Africa, etc, at the meeting of ISO/TC 207 at Oslo during June 2011, insisted on the inclusion of a Trade related Disclaimer (Clause 4.1 of ISO/DIS 14067) as under:

"This International Standard shall not be adopted or applied with a view to or with the effect of creating obstacles or restrictions to international trade. Relevant provisions and interpretations can be found in WTO documentation."

The CFP study shall not be used for a communication on overall environmental superiority because a CFP study covers only a single impact category."

3.2 However, through Technical Management Board (TMB) meetings of the ISO held at New Delhi in September 2011, and subsequently during 15-16 February 2012 in Geneva, it has been decided to remove this Trade Disclaimer Clause. The next meeting of the working group would be held in Bangkok once the voting has been completed and it is imminent that this trade disclaimer clause would be removed. This again brings back the prospect of using the ISO standard on CFP, namely ISO 14067 as a Trade Barrier.

4. New Changes in Procedures at ISO

4.1 Till recently, the procedures in ISO required that if a DIS gets approved, but has substantial comments and disapprovals, the concerned ISO Technical

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Committee or the Subcommittee would have to explain the manner in which the comments have been resolved, modify the DIS keeping in view the comments that have been accepted and circulate the same for voting. This process would continue till the concerned ISO Technical Committee or the Subcommittee is convinced of arrival of consensus. Subsequently the document would get registered as an FDIS for a 2 month ballot.

4.2 However, ISO has now changed its procedure wherein there is no need for giving consideration to substantial comments that have been received or the disapproval ballots that have been cast, in case the DIS meets the Approval criteria. There would no circulation of modified DISs or FDIS, but the DIS gets directly printed as an ISO Standard.

5 Conclusion:

5.1 From 4 above it can be seen that the situation is precarious since DIS 14067 can get published as an ISO Standard even if substantial comments for modification is made by ISO members or casting of Disapproval ballots by a few countries only. The only way forward is to ensure that there are more than 25% Disapproval Ballots (with suitable justifications in the form of comments). Further, this is the only chance for taking this action as there would be no further stages of DIS or FDIS.

5.2. The implications of the above concerns on ISO/DIS 14067 is that a draft that acknowledges imperfections and which should only have been developed as a Guideline Standard would be published as a Requirement Standard which would then be used as a tool for imposition of non tariff barriers (NTBs) by Members who incorporate this standard in their technical regulations by differentiating products on the basis of their carbon footprints. This would not

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only impact the exports of a country but would also have an impact on the domestic trade.

5.3. Such a measure would be more trade restrictive than necessary since it is not based on objective parameters for determining the potential environmental impact of the product.

5.4. There is also a possibility that such measures could be used for differentiation in tariffs between products.

5.5. In the light of these reservations, it is important that the participants in the DIS balloting (enquiry stage 40.20 of the ISO process) are aware of its trade restrictive and distorting implications. India had given a **negative vote** in the earlier stages of the draft standard and would continue to maintain this position.

5.6. We would propose that ISO/DIS 14067 be converted to a "**Guideline Document**" instead of a "Requirement Standard" with the retention of the Trade related Disclaimer. This can happen only if the standard does not pass the ISO voting test at the enquiry stage (40.20 of the ISO process).

5.7 At the enquiry stage, all the ISO Member bodies are permitted to vote. However, the process of approval of a draft ISO standard is by a positive vote of at least $2/3^{\text{rd}}$ of P Members of the technical committee/ sub-committee. However, if more than $1/4^{\text{th}}$ of all ballots cast are Disapproval votes, ISO/DIS 14067 cannot publish it as an International Standard.