Comments on "Draft tool for baseline identification" and "Draft tool for baseline emissions calculation", by Ambachew F.Admassie

I. **Comment on "Draft tool for baseline identification"**

Comment A ; Definition

Under the Definitions section, article number 4 must include intermediate outputs that are major components of the final product. A typical example can be Clinker. Clinker could be marketed as it is. But commonly it is further converted to cement for marketing. All common cements contain clinker as major component. Hence an establishment produces clinker first before it produces cement. Even if clinker is a preliminary stage it is not mostly marketed, as it is rather sold embedded in cement. But we can not say that the consumer of clinker is the producing plant itself and call the same plant an "individually identified customer". It is automatic that the consumer of the cement in the market is the consumer of the clinker in the cement. In most cases the consumer of cements is not individually identified and hence, the consumer of clinker is not individually identified too.

Completeness suggests therefore that all bullets under 4 be adjusted to include intermediate output but major components of product. Proposed bullet structure;

"The output or the product containing an output as major component is supplied to consumers that cannot be individually identified, e.g. because the outputs are supplied to markets, grids, common pipelines or pools,"

Comment B: Part I article 5 page 2

Given the potential confusion it establishes, it is a relief that this article and its associated diagrammatic notes are not applicable to None-IICs. However, even for IICs, proper streamlining is further required. For instance where the project activity output is destined to displace an output he could have produced otherwise and when such baseline is set based on benchmark (which is normally established by taking data on all other outputs produced in region and hence representing every alternative production scenario),it would be a double count to apply any of the situations under Note 1.Moreover, in a host country with dire demand for a certain product, any additional output from project fills the scarcity gap that would have been filled with the most likely alternative.

Comment B: Part I article 7 page 4

MABS 1: Fuel and feed-stock switch methodological approach for baseline setting characterized by the identification of the baseline fuel/feed-stock (determination of a Carbon Emission Factor) and the determination of the project system efficiency when using the baseline fuel/feed-stock

It is difficult to categorize "identification of the baseline fuel/feed-stock" **together with** the "determination of the project system efficiency when using the baseline fuel/feed-stock" as one component. The reason is that:-

- a baseline fossil fuel can be switched either on a baseline plant or a more efficient plant system than a baseline plant

Example:

CASE I: I can use coal in a baseline kiln or use bio-fuel in a baseline kiln. In this case what matters is the calorific value of the fuel burnt which determines the amount of energy spent to produce a unit product. While the energy per unit product remains the same in both, the bi-fuel emits no GHG.

CASE II: I can use coal in a more efficient kiln or use bio-fuel in a more efficient kiln. In first one the amount of energy spent to produce a unit product decreases primarily because I used an efficient technology. In the second one the amount of energy spent to produce a unit product decreases primarily because I used an efficient technology and thereby reducing emission from reduced coal consumption. Additionally switching fuel to low carbon reduces emission while the energy spent to produce a unit product remains nearly the same in the previous.

Since the effect of switching fuel is different from the action of investing on efficient technology to reduce fuel consumption, the two are different components by common sense. Hence fuel switch and system efficiency enhancement can not be categorized under one component under MAB1.

- a baseline feedstock can be switched either on a baseline plant or a more efficient plant system

Example:

Case 1: One can use limestone to produce clinker or he can use CCR (Calcium Carbide Residue) to produce clinker on a baseline plant. Heat is required to produce clinker regardless of the type of raw material. In this case the emission saving is of two sources. The first emissions saving is the result of whether there is a material that should be de-carbonized and the reaction gives CO_2 out before giving the right ingredients for clinker. The second emissions saving are if there is any thermal energy saved by avoiding energy of dissociating carbonated materials. The one raw material that doesn't give out CO_2 when burnt gives no emission from both the chemical reaction and potentially no thermal energy for de-carbonization reaction.

CASE II: Alternatively one can use limestone to produce clinker in a more efficient system new kiln or he can use CCR to produce clinker in a more efficient system new kiln. Heat is required to produce clinker regardless of the type of raw material. In this case the emission saving is of three sources. The first is the result of whether the raw material should be de-carbonized before giving the right ingredients. The second emissions saving are if there is any thermal energy saved by avoiding energy of dissociating carbonated materials. The raw material that doesn't give out CO_2 when burnt gives no emission from both the chemical reaction and potentially no thermal energy required for de-carbonization reaction. The third is the saving of kiln fuel due to new kiln's system efficiency. A more efficient kiln may arise from additional investments for pre calciner, pre-heaters, efficient motors and so on that increase optimal use and recycling of energy above the common practice. Note that all these can happen at once.

Since the effect of switching feedstock is different from the action of investing on efficient technology to reduce fuel consumption, the two are different components by common sense. Hence again feedstock switch and system efficiency can not be categorized under one component under MAB1.

Our recommendation is that the fuel/feedstock switch goes to MAB1 while savings from reduced chemical reaction and saving in reduced kiln fuel due to efficient system go to MAB2. This is

because there is no straightforward method of measuring the saving in thermal energy due to avoided de-carbonization reaction. But it is straightforward to know the combined thermal energy consumed for all purposes by a kiln to produce a unit product (clinker in this case) in any kiln technology just from fuel consumed and output produced.

Similarly in the post kiln process (cement grinding),a project activity in fuel/feedstock switch goes to MAB1 while saving in reduced mechanical energy for grinding due to efficient mill or other equipment goes to MAB2. Since there is no chemical reaction involved in post kiln process it is much straightforward.
These measures can happen on an existing establishment or as part of a new establishment. Given that CDM has been instituted primarily for assisting developing nations in leapfrogging older & dirtier technologies as they grow, a developer can decide to take all of these measures at once, at start, on a new establishment inherent in his investment in a certain region where there is inherently less capacity or where it is less common.

Alternatively MABS1 could be;

"Fuel and feed-stock switch methodological approach for baseline setting characterized by the identification of the baseline fuel/feed-stock (determination of a Carbon Emission Factor) and the determination of the baseline system efficiency when using the baseline fuel/feed-stock".

Comment C: Part II.1, article 15, page 6

The phrase **"**a given amount of output shall not be considered to displace more GHG intense output at the producer side (using MABS 2) as well as at the user side (using MABS 5)"; should be made clear for some sectors where multiple products come out in a process and each product stage gives opportunity for reducing emission. As a recommendation, this phrase shall be applicable only when the "producer" and the "user" are not within the same plant boundary.

Example:

- In the pre kiln process stage, one can produce clinker the same way as the common practice. Alternatively he may produce clinker with less GHG emission factor through measures in fuel switch or/and efficient kiln system or/and feedstock switch etc.

- In the post kiln process stage, one can produce cement the same way as the common practice (using GHG intense clinker and higher clinker/cement ratio)**.** Alternatively he may produce cement with less GHG emission factor cement (using a less GHG emission factor clinker and less clinker/cement ratio).

Since one or both of the outputs in the bullet above can be implemented either by one establishment (owner) or several, the definition of the "producer" and the "user" must be made explicit.

A sustaining example is when the same owner produces both clinker and cement which is very common. While he can produce clinker with the same as or higher GHG emission factor than the common practice in region, this owner has the whole option of investing and producing a less GHG emission factor clinker than the regional benchmark and a cement type with less clinker/cement ratio than the regional benchmark of that type.

The other possibility is open when he buys a high GHG emission factor clinker from the market and produce cement in which case he doesn't produce the clinker. However he can reduce emissions by

using this same clinker to producing cement of a less clinker/cement ratio than the regional benchmark of that type. Note that both of these production options seem broadly covered under ACM 0005 either in the form of just a statement or a fairer detail.

Comment D: Part II.1, article 16, page 6

The "note" part in this section is a very important guideline to refer in time of need for consistency purpose when dealing with any project using any applicable methodology. The tool's acknowledgement that it can be "difficult to benchmark because the data needed are not necessarily available and the determination of the level of aggregation might be challenging."; and in such cases "it is better to benchmark just particular parameters and consider that the displaced output is the output that would have been produced by the project proponent using for the particular parameters the benchmark value instead of the project value." is so far among the highly awaited written consensus on such matter, that would serve as clear guideline for all sides hereafter.

However, it would also be good to evaluate how ACM 0005 benchmarks the parameter (percent of blending).Without taking any data about how the clinker is produced, ACM 0005 requires data from every cement plant in the region regarding clinker/cement ratio of a particular brand and the amount of cement produced in a year by that plant for the past few years. It then gives three options for calculating the weighted average clinker/cement ratio to be used as a benchmark for the project activity.

Certainly, if the task of obtaining past few years annual output and blending data from each cement plant is considered simple, a cement plant which is willing to give such data would be barely expected to refuse giving data for other parameters unless the data are not among those commonly routinely measured. Percentage of carbonated and non carbonated material in clinker making, chemical composition of such raw materials, the annual clinker produced, the annual kiln fuel consumed and type are among data of similar simplicity as getting data on clinker/cement blending ratio and therefore can be used for benchmark establishment with weighted average method too if needed. This seems obviously an encouraging new but delayed revelation and should be directly adapted for other methodologies as well. For instance for ACM0015 (existing as well as Greenfield establishments), the emission reduction from many of the components can be calculated based on "emission factor of the project clinker" and the "clinker" that would have been produced by the project proponent if he had used the benchmark value for "just particular parameters" related to the particular CDM measure. Section "II.2. Baseline emissions calculation based on benchmark" of "Draft tool for baseline emissions calculation." is an exciting new development for its mainstreaming.

Comment E: Part II.1, article 17, page 7

The article 17 reads; "However, in case the CDM project displaces another project that would have been implemented by the project proponent, a conservative approach is taken to…….", and reads "This means that in case the CDM project displaces other alternatives that would have been implemented by the project proponents, the project cannot have a component using MABS 1 and a component using MABS 2 because it can only be either a fuel/feed stock switch or a technology switch."

In our belief, this is just an imposition and absolute denial of opportunities and in complete contradiction to the intention of CDM too. As explained previously, the CDM has been instituted

primarily for assisting developing nations in leapfrogging older & dirtier technologies as they grow. A developer can decide to take several measures at once as inherent principle in his investment decisions as part of a new establishment in a certain region where there is inherently less capacity, where it is less common to consider efficiency and where there is no local source of technology of the particular sector.

Comment F: Part II.1, article 19, page 8

Article 19 states, "For Greenfield or Brownfield projects providing outputs different from renewable electricity and electricity generated from waste energy recovery, MABS 5 is to be used, if the PPs would not invest in the absence of CDM."

Again this is a complete contradiction to the tools provision in article 16, typically for sectors like cement, where customers would be none individually identified and it would be cumbersome to exactly identify the emission factor at the user side. Data availability in a region cannot be relaxed to whether one intends to build a Greenfield plant or does measures on existing plant.

It further reads," However, alternatives using the project technology but a less clean fuel than the project fuel (MABS 1) and alternatives using the project fuel but a less efficient technology than the project technology (MABS 2) might also be considered as alternatives to the CDM project if the PPs can establish that they would anyhow invest in the absence of CDM in a more attractive and more GHG intense alternative.", which further more complicates than the intention of the tool itself. In host countries where the prime focus commonly is rushing to producing a dire product however dirty the process might be, where no one cares about emissions, where project technology is not locally sourced, where investment money is not a straightforward provision and when the CDM itself is not even as straightforward as borrowing money from a bank, it can be ridiculous to ask to demonstrate whether or not "PPs would not invest in the absence of CDM". PPs in such host country conditions should be rewarded for any relatively superior investment measures and components they make as far as they keep the common CDM rules upright.

With this appreciation, I suggest the following final remarks;

1. on Note 3 under article 17 be adjusted to;

"Note 3: In the case the project proponents can establish that they would not have invested in the absence of
CDM, or when the project technology is not locally sourced or when they can easily establish fuel/feedstock benchmarks and technology efficiency benchmarks of the applicable region, then the project output displace an output a third party would have put in the market. In such case, the displaced output might be generated under the baseline scenario using both a technology and a fuel/feedstock more GHG intense than the project fuel/feedstock and technology."

2. Regarding baseline with benchmarks (None MABS)

When baseline identification based on bench mark is chosen, it should be understood and explicitly put in the final tool that the data used to establish the benchmarks are expected to come from existing establishments regardless of whether the proposed project activity is on an existing plant or new plant.

3. Regarding definition of region

The first suggestion is that whatever the definition of a region is approved under the applicable approved methodology, shall remain valid and primary for the tool too. If there isn't a definition in a methodology, the explanation in this tool package could be referred.

II. Comment on the "**Draft tool for baseline emissions calculation".**

I. Status of existence of the project activity or establishment

It is clearly simple to understand that in the hope of producing/delivering a certain product, a project activity could either reduce the plant's own previous emissions track record (its historical emission) or emissions from the common practice in delivery of similar products in the host nation.

However, the draft calculation tool only addresses the case when the project activity is being proposed on a plant with a certain "self" emissions track record and doesn't address the issue of how to establish a baseline when:-

a. a project activity is an entirely fresh proposition in low carbon manner to meet a growing or already suppressed demand (**note** that it is very rare or may even be too luxurious to engage to displace GHG intense products for many least developing countries known for scarcity of products),

   Example; (1) if one wishes to install renewable energy power plant to address energy demand where there has been no power plant before, or (**2**) when one whishes to install a light rail transit based on hydro based grid where there has been no light rail based transport before or (**3**) when one wishes to distribute a solar lantern where there has been no light before let alone a solar lantern etc.

   These establishments give single product. In either of these cases, we target the common practice of providing energy or transport in a host country and not the establishment itself. Without these new schemes, obviously the easiest alternative scenario is either a more GHG intense trend or absolutely unacceptable state of underdevelopment.

b. A project activity is proposed as one measure on a new establishment which might have several processes or products.

   Example (1); if one wishes to do increase blending of cement or (**2**) raw material switch in clinker making or other activity all from start in a new cement plant.

Regardless of whether a plant is new or not, there is already a market inundated by cement or clinker produced from existing plants with their own emissions intensity and the new cement or clinker from a CDM project is proposing a cleaner product .Without these new products from new schemes, obviously the easiest scenario is either a more GHG intense trend or absolutely unacceptable state of scarcity.

Certainly in these cases however, there would be no rational talk of "The continuation of historical or current situation" on a particular project establishment. Rather there is a continuation of a certain practice or technology of providing similar product in the host country where the CDM activity is being proposed. Given that many of the least developing countries are yet to grow to meet their ambition of descent living than scraping old existing technologies, the focus on how we can establish baselines for new ones is the most rational CDM urgency. In its present form, the phrase "only the amount of output produced by the project up to the pre project level can have as baseline the historical or current situation" in all MABS's devoid the applicability of the tool to new projects. Hence the tool should be adjusted to give clear statement for such other cases either based on "**historical data from existing cement plants in the region**" or the "**Baseline emissions calculation based on benchmark established taking data on existing plants**" and has to categorically address the matter. The phrase "pre-project" could therefore dare to peg with the "start date". This is not an entirely new approach as it is already being used in methodology ACM0005 although that methodology still seems requires a clarity touch to avoid contradictory statements here and there and remove a sense of "indication" by "implication"….which seems causes reluctance by developers or subjectiveness by regulators.

II. Phrases in cells of Table 1 of the benchmark basis in page 9 are too condensed to seem fairly applicable without confusion or subjectiveness and in most cases seem too limited in scope to a set project activity in mind. Each phrase in the table has to be sufficiently elaborated in a sincere statement whenever possible and supported by example of a certain project activity.

III. What is the rationale behind varying the level of stringency across MABS's in the same table? Should all projects not be either stringent uniformly or stringent to the level pegged by the methodology? In other words is there logic behind a stringent CER and less stringent CER? Certainly I believe too conservative or too lax stringency should be avoided to maintain room and robustness together but reasonable scale should be applied uniformly for all MABS's.

END