Comments of Japan

To UNEP/CBD/SYMBIO/ATEG/2015/1/3,

Paragraph 1 of decision XII/24 states “there is currently insufficient information available to finalize an analysis, using the criteria set out in paragraph 12 of decision IX/29, to decide whether or not this is a new and emerging issue related to conservation and sustainable use of biodiversity ”. The AHTEG is supposed to be established to provide information sufficient enough to decide that. Based on this point of view, the discussion at the AHTEG would not be able to reach any practical conclusion without defining synthetic biology precisely. It means the AHTEG has been requested to deepen scientific discussion on the nature of synthetic biology. However, the discussion there does not seem to have been performed well in terms of scientific analysis. Consequently, it is still unclear “whether or not synthetic biology is a new and emerging issue related to conservation and sustainable use of biological diversity”. At such a stage, the report indicates several actions to be taken more than pure efforts to understand synthetic biology. In addition, though there are a number of references assuming benefit sharing on genetic information in the report, those are beyond the issues under the Convention. It is difficult to understand that the conclusion in the report of the AHTEG is induced by a scientific and rational study based on evidence. With these thoughts, it is questionable that this report can be a common base for further discussion on synthetic biology. Such concern is also explained by several examples shown below.

Operational definition <Para 24, 66 (a)>

The operational definition of synthetic biology is too obscure to respond to the missions given in Annex of Decision XII/24, let alone to induce any conclusion on whatever action to be taken. For instance, the term “biological system” is not a word clearly defined in the context of synthetic biology in the past discussion. In addition, genetic material itself includes just chemical compound. It is unclear why the phrase “genetic material” is isolated from living organisms in the definition while EC document, reference source, defines as “genetic materials in living organisms”.

Components and products of synthetic biology <Para 28,29,30,38,66(j)>

There has been no clear consensus on what “components of synthetic biology” and “products of synthetic biology” are. According to para.32, “components” refers to parts used in a synthetic biology process (for example, a DNA molecule), and “products” refers to the resulting output of a synthetic biology process (for example, a chemical substance). Some part of such components and products of synthetic biology might be identical to those of conventional technologies for genetic modification, though others might be not. There has been no rationale so far for the necessity of specially addressing all “components of synthetic biology” or “products of synthetic biology”. Furthermore, more fundamentally, it is not clear in what sense such components and products can fall within the scope of the Convention as is mentioned in para 38.

Benefit sharing related to genetic information <Para 31, 39, 52 Objective 3, 66(i)>

There are several references which seem to be assuming benefit sharing on genetic information. In the Convention, the object of the benefit sharing does not include such information. Those discussions are beyond the scope of the Convention.

Similarities and differences <Para 34，66(b)>

If living organisms resulting from synthetic biology is recognized as, not identical as, but similar to LMOs in the Cartagena Protocol, what kind of difference from LMOs in the Cartagena Protocol exists should be clarified. More detailed analysis should be performed before deciding the nature of synthetic biology. In addition, it is theoretically impossible to assess “future” applications of synthetic biology now.

Scope of the Convention <Para 38>

It is impossible to determine only with current operational definition whether synthetic biology as a whole falls within the scope of the Convention and its three objectives or of its Protocols. There is no explanation in detail.

Benefits and adverse effects <Para 52 Objective 3, 66(c)(f)(l)>

Benefits and adverse effects of synthetic biology vis-à-vis the three objectives of the Convention are listed. It is questionable that the work of the AHTEG identifying benefits and adverse effects in light of benefit sharing is within the terms of reference of the AHTEG according to (e) of Annex in Decision XII/24. Then looking at the contents, there are several points difficult to understand. For example, in the description under para 52 Objective 3, there is a phrase “A shift in the understanding of what constitutes a genetic resource”. What is “A shift”? There has been no change in the concept of genetic resources. A concern is raised for the misappropriation of the original source of DNA information,　however, it is the problem of misappropriation of genetic resources, not the problem of synthetic biology. In addition, there is a phrase, “inappropriate access without benefit sharing due to the use of sequenced data”. In this expression, it is unclear in what sense such negative word “inappropriate” is used. Furthermore, there is a phrase “Patent-driven and open-source approaches to synthetic biology may have different implication”. There is no explanation even on what adverse effects would arise from patent-driven and open-source approaches to synthetic biology. It is questionable that further continuation of the works finding positive and negative impacts of synthetic biology is productive because any matters can be described in both positive and negative ways depending on the case and viewpoint.

Other AHTEGs <Para 66(d)>

There is a phrase in conclusion, “particularly by relevant works tapping into existing processes, such as the AHTEG on Risk Assessment and Risk Management and the AHTEG on Socio-economic Considerations under the Cartagena Protocol”. Currently both AHTEGs are assigned to work on LMOs. While it is unclear whether organisms arising from synthetic biology fall under the definition of LMOs, is it possible for both AHTEGs to work on synthetic biology? If this sentence is assuming the activities after COP-MOP VIII, it is preempting the conclusion on extension of both AHTEGs.

Synergies <Para 66 (e)>

No reasons and purposes are given as to pointing out each organization in the conclusion to be expected to establish synergies with CBD. Before asking other organizations, at least it should be clarified in what sense those organizations are relevant and important. Without scientifically clear idea of synthetic biology, what will CBD ask other organizations? With this thought, the prioritized partner would be pure scientist community like the Global Network of Science Academies.

Oversight with regard to components and products of synthetic biology <Para 66 (j)>

There is a phrase in the conclusion, “Assess potential gaps in oversight under the Convention and its Protocols with regard to components and products of synthetic biology”. There is no explanation on why oversight with regard to components and products, which is non-living, is necessary. Furthermore synthetic biology itself is not clearly defined and not decided to be “a new and emerging issue related to conservation and sustainable use of biological diversity”; consequently the object of oversight is not clear. It is not understood as reasonable suggestion.

Engagement <Para 66(k)(l)>

There are references to promote engagement of several categories of group in conclusion. However there is no explanation on the object to engage in. For instance, while para 66 (l) suggests promoting engagement to discuss the development of guidelines, public awareness, communication and education and ethical considerations, there is no description about what those activities means and why they are needed. It appears preempting only the engagement before confirming the object to engage in.