Mr Kemraj Parsram Executive Director Environmental Protection Agency

Dear Mr Parsram,

This note contains my submission on the EIA drafted by ERM for EEPGL in respect of the Yellowtail oil field, in accordance with section 11 (10) of the EP Act 1996, and the consultations required under section 11 (9) (a). This submission is supplementary, and not in prejudice of the submission made on 10 December 2021 as part of a group of citizens

The EP Act does not define the meaning of 'public consultation'. You will recall that ERM and EEPGL insisted on taking 90 minutes to make their presentations about the EIA, leaving a scant 30 minutes for questions from the public, even though Ms Janelle Persaud and Mr Jesus Bronchalo had been requested on 9 November 2021 to have ERM shorten the presentations and allow more time for questions. That request was not addressed by ERM/EEPGL at the Umana Yana consultation on 11 November 2021, ERM/EEPGL continuing to present what much of the audience had probably heard and read previously. At that meeting ERM was explicitly asked to reply in writing to the questions to which no answers were given during the meeting, but has completely failed to respond.

ERM's silence is both difficult to understand and contrary to its own statement on page 4-7 of volume I of the Yellowtail EIA:

'Consultation

'EEPGL seeks to support open dialogue and receive stakeholder feedback, opinions, concerns, and knowledge regarding the way the Project may interact with the natural and social environment. Through consultation, EEPGL's objective is to identify key stakeholder issues and concerns.

Consultation or dialogue activities involve a two-way flow or exchange of information between stakeholders and EEPGL or the Consultants, and may include one-on-one and small-group meetings, public meetings including a question and answer session, and feedback mechanisms such as a dedicated email address (guyanastaff@exxonmobil.com) and phone line (+592 231 2866). EEPGL also communicates regularly with its stakeholders through its Facebook page. The intent of these activities is to allow for not only a two-way exchange of information, but also a means for EEPGL to gather information concerning topics that are important to its stakeholders. These activities also help ensure stakeholder comments and opinions are heard and legitimate concerns are addressed....'

In addition, I remind you of the open letter sent by members of the civil society of Guyana dated 10 December 2021 and published in the Stabroek News column In the Diaspora on 13 December 2021, concerning the persistent failure of ERM/EEPGL to respond (Simone Mangal-Joly, Alfred Bhulai, Vanda Radzik, Janette Bulkan, Danuta Radzik, Jerry Jailall, Alissa Trotz, 2021).

The lack of engagement with the public by ERM and EEPGL has been a feature of the exploitation of the Stabroek tract by the ExxonMobil (XOM) consortium since 2015. Citizens of

Guyana have rights to information; see Article 13 in the National Constitution and its relation to Article 149J, plus Guyana's ratification of the Escazú Agreement on access to information about the environment. I am sure that you will be keen to remind ERM/EEPGL of their obligations and, for EEPGL, to fulfil the information commitments made by the parent company XOM, in your role as head of a government agency under the Ministry of Natural Resources. Such reminder would accord with your public statements about enhancing the effectiveness of the EPA (Kaieteur News, 2021).

Because of the failure of ERM/EEPGL to respond to questions from citizens of Guyana, I will deal in this submission only with some aspects of EIA (version 0-2, October 2021) which concern **fisheries.** It is clear in appendices D and M in volume II of the EIA that ERM has tried to obtain access to longitudinal fish population and catch data which should be readily available from the government Fisheries Department. It is significant that ERM, through its sub-contractor EMC, has drawn on the 1962 publication by Rosemary Lowe-McConnell on the two seasons of research trawls in 1958 and 1959 (35 cruises, 2246 fishing hours, 1070 sampling stations) which yielded a total of 213 marine species. ERM apparently did not find government data on accessible file, and so commenced snapshot surveys in 2014 through sub-contractors, including the local consultancy EMC in 2018.

The two appendices D and M in volume II of the Yellowtail EIA provide confirmatory evidence about marine biodiversity, following Lowe-McConnell. That is, there is no evidence in the EIA that marine biodiversity has declined between 1959 and 2015.

The EIA volume I notes that EEPGL/XOM commissioned environmental baselines studies (EBS) which include campaigns in 2014 (by Maxon Consulting and TDI-Brooks), 2016 (Fugro GB Marine), 2017 (ESL), 2018 (Canje tract, Maxon and Fugro), 2019 and 2020 (Hammerhead oil field in the Stabrook tract, Maxon et al.). Some of the baseline studies have been included in Appendix I of volume II of the Yellowhead EIA. They include results of benthic sampling of the sea floor but do not cover fish populations. However, right at the end of this Appendix I are a few charts of salinity and dissolved oxygen against depth in the ocean.

Marine water quality studies (snapshot data) are reported in section 6.4.2 (physical pages >428) of volume I of the Yellowtail EIA and may be helpful in interpreting fish population data at some future date.

Only a few of the EBS are included in Appendix 1; some others were provided with the Payara EIA. It is not clear why all the EBS have not been provided in Yellowtail Appendices.

Small-scale fish surveys were carried out by EMC and by ERM, in September-October 2017 (dry season), April 2018 (wet), November 2018-January 2019 (dry), and April-June 2019 (wet) in four depth zones: Stabroek tract deepwater, on the continental shelf, near-shore, and estuarine. It seems that some sampling was done on the fringes of some mangroves, but no systematic study inside mangroves.

If correct, this was a major omission because of the importance of Guyana mangroves as spawning grounds and nurseries for shrimp and young fish of some demersal species.

Ms Simone Mangal-Joly has already pointed out that that ERM did not try to locate the breeding or nursery grounds for even the main commercial species, nor was there any attempt to study the annual patterns of migration of major fish species (Stabroek News, 2021). Anecdotal evidence from fishermen and fish market stallholders confirms that there are seasonal patterns of variation

in fish catches and icthyoplankton presence. Some variation may be linked to the tremendous outflows of freshwater during the wet seasons from the major north-flowing rivers of Guyana, especially Essequibo, which affect both salinity and water temperature. As surface sea temperatures in the near-shore and continental shelf zones are close to the natural upper limit of comfort for ocean fish (32°C) even a small rise because of hotter river water may drive fish further offshore. Likewise, anecdotally, fishermen are aware of the continuous discharge of heated cooling water from the FPSO Liza Destiny, but probably not aware that ERM claims that the extra heat does not exceed 3°C at a distance of 100 metres from the FPSO.

The Yellowtail EIA volumes spend many pages on the claimed insignificant negative impacts of pile-driving for SURF components and the vertical seismic profiles (VSPs) planned within each oil field to help determine the locations and flows of the petroleum resources. It is not the VSPs which concern the fishermen but the widespread knowledge and rumour of the very long distances at which the air guns of the exploratory seismic mapping can be heard underwater and the reports of damage from these air guns to cetacean biology and social communications. I have been unable to see if these 3-D and 4-D seismic surveys are covered by the EPA's environmental authorisations for the three fields Liza-1, Liza-2 and Payara.

Anecdotal information from fishermen includes a frequent comment that 'vibrations' from the vessels of XOM contractors are driving populations of commercial fish species away from the customary fishing grounds.

There seems to be some confusion among fishermen, possibly because of the absence of culturally appropriate information from ERM/EEPGL. The fishermen are not able to distinguish the functional differences between the anchored FPSO, the 25 platform supply and service boats, the vessels used to lay the fibre-optic control cables between the Liza-1 field and the Georgetown office, and the geo-technical and sea bottom survey vessels. It seems unlikely that the coastal fishermen have access to the MARAD Notices to Mariners which announce the arrival, movement and departure of drillships and the Marine Safety Information notes which announce survey ships for geotechnical study of sea bottom and sub-surface conditions.

In 2021 there have been at least the following campaigns, some of which may have been visible from the coastline or from near offshore, and some have been covered by retrospective MARAD Notices.

Fibre-optic cable work – MARAD Notice 66, 18 June for 1 June – 30 August (6 vessels); MARAD Notice 95, 30 July for 26 August to 10 October (1 vessel); MARAD Notice 103, 24 August for 28 August – 31 October (1 vessel);

Geo-technical and bottom surveys – MARAD Notice 43, 23 April for 18 March – 30 June (2 vessels); MARAD Notice 76, 02 July for up to 31 October (2 vessels for bottom surveys off Plantation Best); MARAD Notice 85, 08 July for 08 July – 31 October (3 vessels for the Demerara River and coastline westwards); MARAD Notice 92, 30 July for 04 August – 04 November (1 vessel); MARAD Notice 128, 18 October for 19-31 October (2 vessels for survey NW of the Demerara Main Ship Channel).

It is not surprising that fishermen believe that such near-shore work may include activities which could be causing declining fish catches, in the apparent absence of efforts by ERM/EEPGL to explain what the various oil-related vessels are doing and why.

I have also heard allegations by fishermen operating pin seines and Chinese fyke nets to the northeast of the Demerara River estuary that some of these legally-obtained property rights (to fish at defined locations authorised by the government Fisheries Department) have been abrogated unilaterally by Government, allegedly to make room for the fibre-optic control cable and possibly/probably in the future for the shore-to-energy pipeline promised by the Vice-President Bharrat Jagdeo.

I do not find in the EIA volumes for the Yellowtail EIA any consideration of these matters. There are widespread beliefs among fishermen and fish traders that the activities of XOM and its contractors are affecting negatively the declining populations of commercial fish species. Although XOM has carried out some awareness-raising activities in some coastal locations, it seems that the style of communication was neither culturally meaningful nor encouraged retention of the information. There seems to be no provision in the EIA for regular systematic monitoring of the commercial fish populations which may be affected negatively by XOM activities, or for public reporting of such monitoring. Given that artisanal fishing, selling and processing are a major source of coastal employment and family income, and given that the EP Act requires the developer to develop the EIA for the whole of a project (section 11 (5) (a) (i)), I urge the EPA to take account of the civil society submissions made under section 11 (10) and the views on the consultations and scope under section 11 (9), and to firmly reject this inadequately comprehensive EIA under section 12 (12) (a).

Yours truly,

Yanette Bulkan

Bulkan

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