To: CLIVAR Science Steering Group
Re: CLIVAR ITF Task Team Renewal Request

The overarching goal of the CLIVAR Indonesian Throughflow – Task Team (ITF-TT) is to identify the scientific gaps of ITF knowledge and develop an integrated strategy towards an internationally sustained ITF Observing System**.**

The ITF-TT has a two-year timeline beginning in 2012 and completed in 2014.

This proposal is to request a 2-year extension of the ITF-TT (2015-2016).

The ITF-TT Goals and Strategies

The ITF-TT has three main strategies that we have successfully acheived:-

1. Strategy: Facilitate collaboration between the many international existing and planned observational and modeling studies to target the urgent gaps in understanding and maximize the scientific outcome. Deliverable: A workshop was held in Jakarta Indonesia in March 2012 with the Science Theme: What governs the Throughflow? Over 25 participants from Australia, China, France, Indonesia, Korea, Japan, and the USA joined the workshop leading to the co-ordination of many international science and implementation plans for ITF studies. An oral reportwas given to the CLIVAR Pacific Panel inNoumea, April 2012. A written report was submitted to WCRP/CLIVAR in January 2013.

2. Strategy: Provide a scientific basis for developing and evaluating a cost-effective sustained monitoring of the ITF heat and mass transport over the long term for use in climate models and future predictions. ***Deliverable****:* A review paper of the current understanding of the structure, variability & dynamics of the circulation within the Indonesian archipelago, identify the outstanding scientific issues, and provide details of the sustained monitoring plan to understand the long-term ITF variability. A Progress Article with contributions and authorship by ITF-TT members was published:

Sprintall, J., A. L. Gordon, A. Koch-Larrouy, T. Lee, J. T. Potemra, K. Pujiana, and S. E. Wijffels, 2014.The Indonesian Seas and their impact on the Coupled Ocean-Climate System.*Nature Geoscience*,**7**, 487–492 (2014) doi:10.1038/ngeo2188

3. Strategy: Provide a capacity building component to train regional scientists and students with interests in the ITF and directly engage them in the use of data and tools for monitoring the ITF and understanding its potential impacts on climate.***Deliverable****:* A capacity building workshop was held at ITB, Bandung, Indonesia from 13-22 January 2014 with 32 Indonesian and Southeast Asian students and Guest Lecturers from France, USA, Japan and Indonesia in attendance. The workshop was focused on "Matching Oceanographic Problems of the Indonesian Seas to the Right Data Sets and Models". Funding to support the workshop was secured from COSPAR, ESA, Westpac/IOC, WCRP/CLIVAR and ITB. A workshop report was published:

Radjawane, Y., J. Sprintall, T. Lee and K. Pujiana, 2014.*Space Res.Today*, 189-191.

Rationale for Extension of ITF-TT

While the ITF-TT has completely fulfilled our objectives and met our milestones, there are a number of reasons why we would like to request a renewal and extend our time line through 2016.

1. A number of the international ITF field programs are still in late planning stages andonly now transitioning to implementation (e.g. Korean-Chinese-USA Gateway program) and so could still benefit from ITF-TT activities to help facilitate co-ordination. In addition, the renewal of the ITF-TT will be complementary and timely for the organization and logistical support for the upcoming Year of the Maritime Continent (YMC). YMC is focused on understanding the role of the maritime climate in the weather-climate continuum over various time scales through intensive air-sea field campaigns. The ITF-TT has been approached by the YMC organizers to assist in providing the expertise and guidance in co-ordinating the oceaniccomponent of the YMC project.
2. After the January 2014 capability building workshop, there was an overwhelming request from the participating students and junior scientists for a follow-up workshop. Indeed we had many more requests for participation from local Indonesian and South-east Asian regional students than we could logistically and financially support at this workshop. We would request CLIVAR continuation of the ITF-TT and support of another capability building workshop to be held in Indonesia during the renewed term. Moreover, we would aim to establish some web resources that are semi-permanent so the students can use these resources after the workshop to learn more about the ITF.This request to support an ITF-TT workshop is directly in line with CLIVAR and WCRP's philosophy that "success depends on engaging the next generation of scientists as well as increasing the scientific capacity in developing countries".
3. At this stage, neither the CLIVAR Pacific nor the CLIVAR Indian Ocean panels currently have ITF expertise in their panel members. The ITF-TT has regularly reported to both panels about ITF related activities and would continue to do so over the renewal term. The ITF-TT would also continue to engage the international observational community to integrate at least some prioritized elements of an ITF observing system into the sustained, integrated tropical ocean observing system. An example is the interaction of the ITF-TT with the international community on the design of the future tropical observing system, such as the ITF-TT has undertaken as part the international Ocean Observations Panel for Climate (OOPC), "Tropical Pacific Observing System (TPOS) 2020", Workshop Report and Recommendations, 2014.

We would welcome further discussion and are happy to provide further information on request to the CLIVAR SSG.

On behalf of the ITF-TT:-

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