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ASSESSING THE BOTTLENECKS FOR A SUSTAINABLE FRAMEWORK FOR APAC REGIONAL  
COOPERATION FOR SPACE EXPLORATION

**Abstract**

An indisputable aspect of increased participation in *space exploration* is the cultivation of a sustainable cooperative ecosystem. Governments recognize the importance of a space program, yet only six APAC countries have fully-realized independent space capabilities, and only a handful have space presence. Cooperative frameworks have been devised but participations are seemingly unsustainable. These *multiple* regional initiatives (currently, a bifurcation scheme) actually portend the existence of regional division *with* competition impeding a truly “institutionalized mechanism”. Difference in each initiative’s primary goal and the promotion of own interests not necessarily towards regional cooperation has shown negative impacts towards institutionalization. Over the years, several leaders of space cooperation have turned inwards, increasing focus on exhibiting space capabilities and advancing space for military interests. Is this increased inward focus accompanied by a parallel increase in cooperative initiatives? Close analysis of existing national space policies can tell whether their legal infrastructure itself *already* provides room for propagating cooperation, or are they only focused inwards, on developing their own capacities? Sustainable cooperation is difficult if member-states have varying development status, varying priorities in national or space interests, or varying accessible resources. For a space exploration regional cooperative

framework, are these the only bottlenecks, or are they only the evident ones with more imperative issues lurking behind? At a quick glance, it can be deduced how most cooperative frameworks drive technical discussions and educational programs (which can only go so far as theory) but very few promote hard-core tech-transfer or space hardware collaborations, which is deemed a critical determinant of how a country is able to participate in joint space explorations. An added dimension to these bottlenecks are seemingly unrelated ingredients (seldomly seen as directly affecting regional cooperation) such as the public's perception of space exploration as an expense vs. investment, the expectations from space activities, and the lapses in science communication. These aspects are relevant since public perception and support impact the pushing-forward of space policies where regional cooperative interests are possibly laid down. Lastly, there are recurring points tagged as primary bottlenecks. However, do past cooperative frameworks demonstrate observable re-strategizing over these issues? Or do the same points pop up in every *bottleneck discussion* and remain unsolved to this day? Common themes such as geopolitics, diplomacy, diverse socio-economic environments, cultural differences, etc. remain. Why do they remain as hindrances to regional cooperation? Does the current ecosystem support *sustainable* space development in the future?