

Akademi Ilmu Pengetahuan Indonesia (Indonesian Academy of Sciences)

A Historical Sketch

This is a story of an intercultural transmission, because science is a cultural construct, driven by the paradigm of development. Modern science, natural sciences in particular, were developed in the beginning of the 16th century, almost exclusively in western Europe and, to some extent, in North America and were spread to all corners of the world in pursue of western hegemony. In this period scientific power and the power of reasoning have shown that they helped to develop welfare, to speed up physical development and, perhaps above all, to free mankind from the fear of natural occurrences.

There is a growing evidence that the spread of European science into their Asian colonies was closely tied with the imperialism and colonialism. Starting in the 19th century science became inseparable part from economic opportunity, the promise of natural wealth and material return. Undoubtedly colonization entailed a massive cultural effort which influenced significantly the cognitive and, perhaps, material existence of both the colonizer and the colonized. In its encounter with “Indie” the Dutch sought to change, based on their own scientific experience, the Indie archipelagoes in its own image. By using the newly acquired sciences of biology, meteorology and geophysics, to learn more what were hidden behind the lush tropical nature.

There were several periods in the West’s face-to-face interaction with Asia. In general it began with a crusade and was followed by an age of conquest and exploitation. The need for educating the natives came later along with the demand for expanding power and influence. . The formation of tertiary education in the colony came much later when the paradigm of economy and health began to surface. Thus the native were largely inactive in acquiring new knowledge.

The flourishing science in the “Indie” (now Indonesia) and the need to communicate with each other led to the foundation of “the Bataviaasch Genootschap voor Kunsten and Wetenschappen” on April 24,1778. Its motto was ”Ten nutte van ‘t gemeen” (for the benefit of public). The Academy was clearly a design of pure minded scholars for developing arts and sciences which already manifested in the crowning achievements of western civilization. This paved the way for the entrepreneurial development of scientific enterprise. Some were driven by the mandate of pure science others were influenced by the birth of the moral of economy of science. The progress of scientific endeavor in Indie was significant as history had shown. It took, however, a long time for that society to be decorated with the magnificent prefix “koninklijk” (The Royal). It was only in 1923 that the Royal Dutch Crown officially accorded that symbol, which testified the successful Dutch enterprise in the colony. By that time the natural and physical sciences in the former Dutch Indie had become a towering phenomena. Unfortunately, only few endogenous people were able to enjoy the fruit of the new way of life. Scientific development was still left to the foreign scientists in the colony. The natives were witnessing only the promise and, at the same time, the peril of modern science and the imbalance in the transfer of technology and science.

Indie witnessed the struggle between the mandate of pure science on one hand and the practical motivation of applied science on the other hand as a “colonial duty”. Scientific activities in the colonies were accepted as the element for elevating international prestige. As Treub observed: “The power and prestige of minor nations is in the works of peace”, meaning science should be dedicated to promote the welfare of mankind. Unfortunately the line that borders different types of “mankind” was indeed very thin, as national and colors are sometimes more important than basic traits. Paramount were the interests and status of the rising the Dutch or metropolitan, welfare. The ideology of pure science as a driving force for technological and social progresses, are sometimes left intact.

A closer look at the growth of science at its origin indicates that there must have been a prerequisite for developing science. In the first place in order to accept change there must have been a preparedness for ethical "mutation". Some expounded the view of the cause of scientific revolution in the west as the realization of the hedonist-libertarian ethics, which drove the thinkers and philosophers of that time with the possibility to pursue their own interest and pleasure for the sake of uncovering the secrets of nature. This was a difficult choice to be made by the revenue-minded planters or industrialists in the colony. It then became more apparent, in later years, when science established many interfaces with other human interests, social structures and the language system, that other factors were necessary in order to make science as it is now.

Changing the Guard While Guarding the Changes

The need for a scientific body which can oversee the intricate policy and problem of science and technology practices have already been felt since the early hour, in our independence days (in 1945-1949). The body should not only to document the past but also should be able to anticipate significant social and political changes in the next decades across a wide range of human endeavours. Even in the late 40's amidst the struggle of independence Indonesia had already declared a view of our era as one of rapid change that it sets apart from both past and future. Demography, economy and social change within the half of the 20th century had in fact been faster on a “global” scale (the term was coined in the late 20th century) than ever before. Therefore the body which is charged to coordinate scientific activities should be able to balance of context of demographic growth and the economic imperative in the framework of scientific growth.

The Indonesian Law no 6, 1956, declared the founding of MIPI (i.e. Majelis Ilmu Pengetahuan Indonesia: The Council of Indonesian Sciences) whose tasks were, among others, to prepare the foundation of an independent scientific body, with prominent advisory capacity. Political life in Indonesian during the period of late 50's until the middle of the 60's had put the formation of an Academy aside. In 1967, after a series of changes in the higher level of scientific organizations, the LIPI (Lembaga Ilmu Pengetahuan Indonesia: National Institute of Sciences) was founded. The LIPI, beside its honourable operating activities to develop science, was also charged to found the “Academy of Sciences”. With the support of the Minister of Research and Technology the first draft for the law regarding the formation of the “Academy” was ready by 1983 to be submitted to the Parliament to be amended. The Government thanks the futuristic outlook of the Minister of Research and Technology, who persistently insisted that the Parliament accept the “Law of the Academy”. On 13 October 1990 the law was ratified by the Parliament. The first 27

chartered members of the Academy were sworn in by the President of the Republic of Indonesia, on November 16, 1991.

The main feature of the “Academy” like any other Academy, is its independency from the executive branch of the government in the country. The academy strives to promote and to elevate the intrinsic values of mankind, the function of society and the agility of the nation. It should accommodate environmental ethics in the process of sustainable development, while maintaining its autonomous stature. While the assessing scientific situation and progress the Academy should provide guidance to the government and scientific societies with the trend setting for sciences, rather than confining itself in fact-finding issues. While doing that we have tried, and will always try, to keep the Academy alert by hearing political and cultural debates so that the Academy is in position to generate the civilizing power which is called science. The Academy is aware that environmental problems exist that threaten and, perhaps shake science in such a way they force scientists to abandon many of their cherished customs. Aware that the close link between social norms and philosophical principles is no accident, the Academy should therefore encourage scientists apply the noble, and time tested, principles in their front line scientific research.

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