

THE DILEMMA OF PHYSICAL PLANNING EDUCATION IN SOUTHEAST ASIA

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Karangan ini mengajukan suatu dilemma atau persoalan yang akan dihadapi oleh bagian Planologi ITB diwaktu yang akan datang. Walaupun bagian Planologi mengingat letak dan riwayat pembentukannya mempunyai banjak sifat yang menguntungkan untuk menjadi suatu pusat regional pendidikan planologi untuk Asia Tenggara akan tetapi salah satu soal jaitu bahasa pengantar pendidikan harus dipertajakkan dahulu.

Karangan ini meninjau latar²⁾ belakang persoalan ini, djuga menguraikan beberapa aktivitas bagian Planologi sampai saat ini dilapangan research dan persiapannya serta akhirnya mengajukan tiga alternatif utama untuk mengatasi persoalan bahasa pengantar itu.

Can the I.T.B.'s Division of Planologi educate physical planners from other Southeast Asian countries without substantial harm to Indonesia's own development program? This is a question now faced jointly by the U.N.T.A.B. and the I.T.B. The Division was first conceived in discussions between Indonesian and U.N.T.A.B. officials in 1954. The U.N. had already selected Indonesia as the best location for a Southeast Asian regional school of physical planning for four reasons. Indonesia has a representative range of climate, topography, cities, and agricultural regions, all contained within its vast borders. In addition, it is physically accessible to other nations, already possessed an excellent technical school, the I.T.B., and has an aggressive national development program. In 1958, it was agreed that the U.N. and the Ministry of Public Works²⁾ would sponsor a school at the I.T.B. enrolling foreign students for a course in planning which would be entirely conducted in English after the year 1964.

Both parties to the agreement had to contribute heavily to the school, but both had much to gain. The Indonesian government would contribute the needed central government supervision and the available facilities of the I.T.B. These include staff salaries, existing library facilities, administrative overhead, and all the other items needed to place a new division on its feet. What was the return anticipated Indonesia's approximate needs for physical planners to aid national development had been estimated at 400 persons. By educating these here, Indonesia could avoid not only the vaguaries of foreign aid programs but also obtain professionals who were intensely aware of the problems at home rather than those of the countries in which they had received their training.

The U.N.T.A.B. was to contribute at least one faculty advisor per year, for seven years, to help shape the curriculum and to teach any necessary courses while an Indonesian faculty was being trained abroad. In return, the U.N. would have a school to which could be sent physical planning trainees from Southeast Asia. It would not only be possible to offer them

better training, but would involve less expense for the severely limited U.N. budget.

The program has developed smoothly since its inception. Ten divisional faculty members have been sent abroad for training so far: five by the United Nations, three by the United States I.C.A. program, two by the Colombo Plan and one by private fellowship. Three more are scheduled to go and five to return to their teaching assignments this year.³⁾ Student enrollment has grown to 95 : 23 in their third year, 28 in their second year and 44 beginning their first year of training. The divisional library now has approximately 1700 volumes and is quartered in a handsome new building constructed with I.C.A. funds. Pressing additional space demands are being filled with the assistance of the Institute which always has given the Division its full cooperation.

Even during these formative years, the Division has had ample opportunity to contribute its growing skill to the national development program. The faculty with student help has assisted most of the major national public works. Our Chairman, Mr. W.J. Waworoentoe, M.Sc. Pl. & H., is in charge of the plans a worker's town attached to the Tjilegon steel works. Physical planning advice has also been given on the Asahan, Djatiluhur, and Brantas Dam Projects. Drs. Sumitro has directed important studies for the proposed Rayon Project in Sumatra and worked for the Navy.

Closely supervised teams of students have collected basic planning data during their between-semester vacations for many towns throughout Indonesia. The Division's work has gained recognition for physical planning as a new profession. In fact, more than half of our third year students have already signed work contracts for their initial professional assignments, and requests for the Division's services have become too numerous to accept without sacrifice of the Division's primary teaching mission.

Nor has basic and applied research been neglected for other activities. Our faculty has continuously been collecting data to be used for technical papers within their special fields when time becomes available. Some reports, useful as teaching materials, are now in preparation. This is made necessary by the inappropriateness of the available teaching materials, largely English language texts covering planning in highly developed nations.

To aid in this effort, the Division has requested and received funds to support the preparation and publication of at least four provisional textbooks from the Institute. These books will cover some of the most fundamental aspects of the field in terms of Indonesia's problems and needs. They will be printed in both in Indonesian and English and serve the additional purpose of guiding interested Indonesian laymen in the purposes and methods of physical planning. One provisional text, *The Urban Survey* by Kenneth Watts, an English Planner who left Indonesia in 1959, was published in English in 1961 and will be issued in Indonesian within the next few months. Three other works are currently in preparation: *An Introduction to Indonesian Physical Planning*, *A Community Self Survey* to facilitate data collection, and *Basic Planning Standards*.

The Division considers these provisional textbooks as the founding work of a Center for Regional and Urban Planning, to be established shortly at the I.T.B. with the assistance of other divisions. The Center was conceived as part of the original negotiations for the Division and would serve as a focus for applied research not only in Indonesia but throughout Southeast

Asia. The United Nations was intending to send Prof. Dr. Richard L. Meier, internationally known expert in the problems of developing nations, in June of this year to advise on the new Center's research program. Dr. Meier will be followed by other U.N. advisors over the four year period required to fully activate the Center. It is expected that the scholars at the Center will produce many significant works in future years.

Where, then, is the dilemma in this attractive prospect of a well staffed school and an active research center? We are not concerned with the research and consulting duties of our faculty and the Center. We are concerned, however, with the probable output of planning engineers if the original intention to conduct the curriculum in English beginning in 1964 were carried out. More than 80% of the present instruction is given in the Indonesian language. Admittedly, most of the required readings are in English. Because of their relative inapplicability, however, and the shortness of reading assignments forced upon us by the students language difficulties, have begun the aforementioned provisional textbook series.

While all students of the I.T.B. can speak and read English, their ability in the language varies widely. Some students come from large urban areas where they have better training in the language and opportunity to use it. These can read an average of 30 pages in English an hour. But most of our first year students can read only 10 pages weekly for each course. Although their reading comprehension and speed increases in later years, it never reaches the peak levels of assignments in Indonesian. The need for severely limited reading assignments naturally causes a tremendous loss in teaching efficiency. An English curriculum, therefore, would bring teaching efficiency to the point of diminishing return except for those few students who already speak and read the language well.

The estimated need for 400⁺ physical planners doubtless is too modest in the face of Indonesia's rapid population expansion, particularly in urban areas. Classes totally given in English would greatly reduce the Division's enrollment. More than 20 years would be required to fill even the minimum estimate at the current estimated output of 20 planning engineers a year. Clearly any drop in enrollment could stretch this time to more than 50 years. In view of the current demand for physical planning services, any decline in the size or quality of the graduating classes would be extremely unfortunate.

This, then, is the problem; how can we improve the quality and maintain our output of students by relying more heavily on Indonesian teaching materials and lectures and at the same time implement the U.N.'s original plans for the Division?

Indeed, our problem may not be unique. With firm support from the central government and some foreign assistance the I.T.B. has become the major technical institute in Indonesia and possibly in all Southeast Asia. Already several centers are hard at work in Bandung studying matters of interest to both foreign and domestic professionals. Among them are the Laboratories for Irrigation and Hydrology, Road Construction, Soil Mechanics, Materials' Testing and the Regional Housing Centre. When the Center for Regional and Urban Studies is added, the I.T.B.'s international position will be further enhanced. Therefore, a solution to the Planology Division's problem may guide its future actions.

Six possible alternatives have been suggested to the U.N. No final decision has yet been reached because some of the preferred alternatives depend upon I.T.B. and Ministry assistance.

- 1) Perhaps the simplest alternative would be to accept foreign students in the Division as planned but conduct the courses in Indonesian and offer simultaneous translation. At least two paid translators would be necessary, however, and the slow pace may lessen student attention.
- 2) Duplicate programs in English and Indonesian could be offered, but the faculty would have to be increased at least 50%. Two separate programs also would strain the Division's administration and increase the present demand for classroom space by two.
- 3) Possibly a special diploma for two years training at the undergraduate level could be offered to people from abroad. Faculty, space, and administration would have to be increased only half as much as in a double program. Even if a diploma program were possible, however, foreign students are likely to be unsatisfied with a non-degree program.
- 4) A completely different alternative would be to invite foreign scholars to participate in the activities of the future Center without offering a degree program. These scholars would be practicing professionals interested in undertaking original research whose stay in Bandung would be financed with U.N. fellowships. Although very little additional working space need be added for visiting U.N. fellows the Center's program must be made interesting and applicable to other Southeast Asian countries.
- 5) If the other technical institutes now being formed in Indonesia were to train physical planners, this Division could offer undergraduate education in English without sacrificing the total output of Indonesian planners. Even though the I.T.B.'s output would drop, the other institutes would fill the gap. In fact there might even be an added advantage in training planners, nearer to their future professional assignments. To achieve this alternative our faculty would need to be enlarged, possibly with U.N. assistance⁵⁾, if the I.T.B. were to help establish the other schools.
- 6) Graduate education could be offered at the I.T.B. when other technical institutes are firmly established. This would permit the Division to offer a graduate program in English for both our better students and the students from abroad. Although additional faculty might be necessary, the total output of planning engineers for Indonesian would be increased in an exciting atmosphere of international cooperation. Furthermore the foreign trainees would be well grounded in their own nations' problems and thus better able to utilize fully their new knowledge directly upon returning home.⁶⁾

In summary, a complete graduate or undergraduate planning education would please the United Nations. Some of the suggested training programs, however, will lower the output of Indonesian planners and probably should be disregarded. Of the six alternatives mentioned above two seem to offer the maximum benefits to both participants. Personally I prefer the last.

Graduate education at the I.T.B. coupled with undergraduate training at the other technical institutes would offer more and better trained physical planners for Indonesia and the other nations of Southeast Asia.

It is only two years before the Division plans to open its doors to trainees from abroad. This is insufficient time to form either a sound graduate division at the I.T.B. or two additional undergraduate divisions elsewhere. Therefore, I have recommended that four to six fellowships a year be made available abroad for research at the Center for Regional and Urban Studies and that Indonesian continue to be the language of instruction for the Division for the present. In view of the pressures of time this is the only sensible alternative, and most likely will be accepted.

Should Indonesia, however, indefinitely limit its contribution to Southeast Asia's physical development in this way? Its wide range of physical problems and its accelerating development program offer too much to foreign trainees for Indonesia to keep its role in international education limited for long. How much it can offer other nearby nations will become crystallized during an international planning conference to be held next year under the sponsorship of ECAFE — in Indonesia if Indonesia chooses. Decisive action now to expand the I.T.B.'s role will give the Institute an exciting international atmosphere and increase Indonesia's contribution in Southeast Asian affairs.

- 1) U.T.A.B. Advisor to the Division of Regional & City Planning I.T.B.
- 2) The Ministry of Higher Education of course, is now responsible for the Division. However, Ir. Soefaat — Former Chief of the Division of City and Regional Planning of the Ministry of Public Works — and Prof. Hadinoto, who first conceived of the school continue to maintain their interest and support in the Division's activities. Both have always been extremely valuable innovators and advisors to the school.
- 3) The I.C.A.'s Kentucky Contract Team has vastly reduced the teaching burden during these early years with the assistance of Prof. George Hinds from the Architectural Faculty.
- 4) Prof. William A. Doebele, the Division's first U.N. Advisor and Ir. Soefaat arrived at this figure by assuming that one planner was needed for each kabupaten and major city.
- 5) U.S. A.I.D. help would be required if the other I.T.B. divisions undertook similar tasks.
- 6) Recently I received a letter from an educator in another Southeast Asian country who stressed his determination to form a highly national planning school which, he believed, would best suit the needs of his country.
- *) Due to some technical difficulties, vol. 2 no. 2 of the Proceedings could not be published on time, in which this article should appear. Some of the remarks in this paper therefore to be outdated.