

# THE PROBLEMS, ISSUES AND CHALLENGES OF PLANNING EDUCATION IN INDONESIA

by  
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*This article is intended to describe the current development of planning education in Indonesia and will consist of 3 main issues as follows: Firstly, a quick look at the dynamic of national, regional and local planning development concept and practice, and in line with the need of Indonesian development program this paper is also intended to explore the importance and need of planning education, and lastly this paper is going to discuss the development of planning education in Indonesia.*

## **The Dynamic of Indonesian Development Planning**

The challenge of Indonesian Development Planning is the problem of the imbalance of population distribution, the regional income disparity and socio-economical structure disparities. Geographically, Indonesia with 5 main islands of Jawa, Sumatera, Kalimantan, Sulawesi and Irian Jaya with over 13000 smaller islands, is clearly a serious problem for an integrated development policy. It is an interesting fact that the natural and human resources distribution over the islands exacerbate the problems. The potential natural resources are mostly located in the islands outside Jawa, while the potential human resources are flocked in Jawa. The government of Indonesia persists to solve the problems of Jawa Island versus Outer Island by issuing regional policy to promote interregional development equity. While it should be noted that regarding the indices of income, welfare and growth of Eastern Indonesian part is lacking behind the western part; resulted also in an issue of interregional development equity.

The interregional development policy and resources allocation in Indonesia is undertaken by the government bureaucrat in the belief that it will be achieved by policies of central planning. In relation to the implementation of

the policy the government of Indonesia formulate a comprehensive national development plan and respectively the local governments also formulate the regional development plan. The development plan formulation subject only to bureaucratic rules, formal procedures and processes applied by the civil services. There can be no doubt that the development plan should be operated and coordinated by the central and local government by considering the interest of the community at large when such planning approach is adopted.

The government of Indonesia is aware of the important role of the local government function in the regional development planning, by imposing "interregional equity" and strengthening the autonomy at the second tiers of local government. During the first long term national development plan (1970 - 1995) the government of Indonesia had a good lesson of analytical exploring development situations, absorbing project opportunity, and deciding project priority, especially the dialogue between the sectoral and spatial development approach. In the circumstances, it is not surprisingly that in the last five year of the first long-term national development plan that the spatial development approach has been considered as an important measure of integrating national, inter-regional and intra-regional perspective in the sectoral priority

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setting. The policies implies that the government initiatives in the urban and regional development planning and management which are actively enhanced.

The first long-term national development has been accomplished successfully in terms of the significant achievement of the rapid increase in national economic welfare. Much of the thrust of the development had come from the public sector, such as the initiation of agricultural development package programmes, responsibility for the opening up new development areas (known as "transmigration program"), implementation of successful family planning program, operation of many banks and public enterprises, etc. While in the field of urban and development, the government deliberately initiated the management of development process both within the context of centralized and decentralized bureaucratic planning on the one side; and the integrated infrastructure development planning concerning the spatial planning and the project implementation programmes, on the other.

The centralized bureaucratic planning is initiated by the formulation of a General Guidelines for National Development ("GBHN"). The GBHN consists of the formulation of general framework of the basic strategy for national development which is spelled out in the long term development plan and in a Five-Year National Development Plan . The national development plan, which consists of the broad policy of sectoral and spatial development, has been well documented and formally enacted as a political statement to be executed by the government. Respectively, in the local government there is a General Framework of Regional Development Plan, i.e. general framework of the basic strategy for regional development which is spelled out in the long term development plan and in a Five Years Regional Development Plan. In line with the national development plan, concurrently there are a long-term regional development plan and the five year development plan.

The implementation of the development plan is followed by the formulation of programmes and projects which have been conscientiously proposed annually by the sectoral department within the central and local government. In order to have a good co-ordination among the development institutions, mainly from the lower tiers of local government to the higher one and up to the central government, it is required that the proposal should be discussed in the regional development coordination meeting. This framework of the regional bureaucracy coordination, known as institutional "bottom-up" planning procedure, is executed by the central, regional and local planning board. It is therefore obvious that the Planning Board plays an important role in the development planning process, which implies a pressing need of professional planners.

Evidence of experiences in the development processes shown that the role of spatial planning has been realized a very important role as an integrated instrument. After a long negotiation and debate during the first long-term development plan (for about 20 years), the government finally stipulated a law on the spatial planning procedures in 1992 (known as the Spatial Planning Act or "Penataan Ruang" law no. 24/1992). According to the spatial planning act, local government authority has the responsibility to prepare a spatial structure plan.

Indonesia has 27 provinces or the first tiers of local government, and 298 regencies or the second tiers of local government with 819 cities and towns. The spatial planning law requires a preparation of spatial structure plan in each tiers of local government. During the fifth Five Years Development Plan (1990/1991- 1994/1995), there were only 15 % of the province/first tiers of local government which had prepared the regional spatial structure plan, but there are only 11% approved as local government regulation. It is interesting to note that all of the regencies/second tiers of local government, 74% are financed by local government budget, but there are only 17 % which had been

approved and stipulated as local government regulation. While within the 819 cities and towns which have been prioritized by the Department of Public Works there are 629 cities and towns which had prepared the city/town spatial structure plan. And 63% of them were financed autonomously but there were only 35% of them are stipulated as a local government regulation.

It can be argued that the local government has the capability to prepare the spatial development planning, but it is rarely followed by their ability to implement and control the development. The preparation of the comprehensive structure plan, in practice, is usually prepared by a consulting firm based on a contract with the respective local government. The local government commission technical staff who are in charge of the preparation of the plan are less often do the job, while unfortunately happened that members of the commission in many cases had not had formal education or recognition as a professional planner. Most of the development planning commission members were almost faced with difficult situation; i.e. elaborating the bureaucratic development planning procedures on the one side and the spatial development planning which in many cases incompatible, on the other. It is a question of the quality of planning and implementation procedures.

### **The Need and Challenge of Professional Development Planner in Indonesia**

What actually needed in the current development in Indonesia is a professional planner who has the capability to make significant contribution with his/her knowledge and skill in the development planning field. The planner should involve in the development process activities of various institution in the central and local governments carried on in bureaucracies with their hierarchies of officials. They should concentrate on action oriented skills, such as involve in many operational development planning specialist activities (widely ranging from the development policy analyst, evaluation of

spatial structure planning formulation, detailed spatial planning preparation, development projects and programmes evaluation, and the practice of technical matters of development control, etc.).

In the vast majority of cases the Indonesian planners are implementing the provisions of the various law and regulations. Such laws as local government act, environment act, transmigration act, housing act and the new spatial act should be regarded as the framework of the operational development planning process. There are several regulations of the central government and the respective sectoral departments at national levels and local government regulation which are important guidance of the development planning procedures.

It is obvious that Indonesia needs development planning professions in many development institutions at the central and local government level. To meet the pressing need the government of Indonesia provides several short course training programs for the mid-career practitioners i.e. courses dealing with widely range from national planning, spatial planning and detailed integrated technical development planning, which are created in line with the need of the development of Indonesia.

It is therefore the role of The Indonesian Association of Planners (IAP) to take the responsibility to maintain qualified planners in Indonesia. Based on a survey on the development of planning profession by the Indonesian Association of Planners (IAP), the expected contribution of professional planners are mainly on the planning and management of the development processes (O.Sussongko, 1992). Moreover the planners' contribution of the development processes are:

- a) formulation of the policy and objectives of interregional balanced development, development equity, etc.
- b) formulation of the development conceptions, strategies and the implementation of development programmes and projects.

- c) arrangement and control of development programmes, projects and resources allocation.
- d) elaboration of implementation and management processes.
- e) bridging the technical and political aspirations
- f) enhancing the cooperation and integration of the sectoral development program and government institutions.

The report of the survey also made a considerable finding on the planning education. According to the survey, most of the respondent agree that the content of the curriculum on planning education has sufficiently covered to meet the need of development planning profession in Indonesia. Moreover, the survey suggests that the planning education should elaborate more on the development issues and management course; while it is urgently needed that the planning education should concentrate more on specialization concerning the most effective and selective analytical methods most relevant to cope with the problems of Indonesian development issues. The survey also purposed the development of the computer technology, but it did not say anything about planning in a social movement.

The challenges of Indonesian planners, therefore, are to cope with the development issues (i.e. the rapid urbanization, industrialization, increasing growth, etc.), which must be directed to a good formulation of national, regional and development policy, in such a way that can make a good coordination of the planning product : the bureaucratic plan, the spatial plan and the sectoral development program. Planners are not always dealing with a comprehensive distribution-allocation of a master program, but they are challenged by a specific and practice operational programmes which need a day-to-day precise operational solutions. It is also true in Indonesia that : " No longer can planner attempt to 'get ahead of the game' once and for all by applying purely technical skills to produce comprehensive master plans by

deductive techniques aiming at scientific precision." ( Heywood, 1981).

### **The Current State of Planning Education in Indonesia**

Given the present problems, issues and challenge of the national, regional and local development planning in Indonesia, the following discussion is intended to look at the current state of planning education in Indonesia. It is quite a problem of analysis whether the pressing need of planner can be provided by the existing planning education in Indonesia. This paper is describing such efforts which have been made to overcome the present demand of professional experts for the development planning in Indonesia.

The means for attaining the pressing need of the demands rely on the provision of :

- a) mid-career short courses or training program by the respective departments or by training specialist institutions,
- b) higher education for undergraduate and graduate planning program ( by the state or private universities).

### **Mid-career Short Courses Programmes**

Mid-career short courses or training programmes had been intensively effectuated by the government, which mostly directed toward selective actions and methods concerning the regional and city planning formulation, co-ordination, monitoring and evaluation of the development activities. The training courses are not only a conventional class-lecture but also a "on-the-job" training of the application of several planning tools which are considered to increase the knowledge and skill in the development planning field.

There are 5 prominent institutions which have executed the following programmes:

- a) The Education and Training Body of the Department of Home Affairs executed **Regional Development Planning and Implementation Training** which was intended to enhance the planning and implementation quality for the Provinces

and the Regencies or the first and second tiers of local government. The course materials were prepared by an international consultant (PADCO), which concerned with a selective planning approach. It is not a comprehensive development planning formulation for the whole region, but directed to a selected area with certain development sectors, which had been considered as a priority areas and sector required to be solved.

- b) The Directorate of City and Regional Planning of the Department of Public Works has a training program for **Post Provincial Spatial Structure Plan**. The program is aimed at training the Provinces and Regencies/first and second tiers of local government, which had prepared their Regional Structure Plan for the Province to be able to elaborate the plan into operationalized development policy, i.e. (1) preparation of the Regional Structure Plan for the Regency at the respective province. (2) the development of the priority areas (3) preparing the infrastructure and basic facilities within the services of the Public Works Department.
- c) The National Development Planning Board, in cooperation with four (4) Universities ( University of Syah Kuala, University of Hasanudin, University of Indonesia, and University of Gajah Mada ) offers a short course training program on **Technique and Management for Development Planning**. The program is designated to enhance the quality of planner at the Regency/second tier of local government.
- d) Institute of Public Administration in cooperation with the University of Dortmund, Germany, executes a short course training program on : **Planning for Regional Development Project**. The program is an abridged version of a postgraduate program on District Planning, a program which is offered by the SPRING, University of Dortmund

designated specially for the Asian, Africa and Latin American countries. The training program is mostly to strengthen the autonomy function of the Second Tier of Local Government to provide the basic tools of development management and program formulation within the context of sectoral development coordination.

- e) Training Program Development Unit of the Directorate of Programming, Department of Public Works had elaborated an intensive training program for **Integrated Urban Infrastructure Development Programmes (UIDP)**. Probably this training program is the most practical and effective program which able to cover more action-oriented approach than the other program. The program is designated as a step-by-step series of programmes to seek the best approach of integrating urban infrastructure development of spatial planning, sectoral development programme, institutional arrangements and development financing. There are 10 following interrelated training modules which are offered suited to a diversity phase of the program : (1) Introduction to IUIDP, (2) Urban Infrastructure, (3) Urban Infrastructure Development Finance System, (4) IUIDP and the Mid-Term Development Program, (5) Spatial Planning, (6) Need Assessment of Urban Infrastructure Method, (7) Financing Urban Infrastructure Development Method, (8) IUIDP Mid-term Development Program Method, (9) Simulation of IUIDP Mid-term Development Program Preparation, and (10) Field Workshop.

It is the policy of the government that the successful trainees are offered to make further advanced study in respective Post-graduate Program, either in Indonesia or at foreign universities. The education policy of Indonesian Government is clearly not only concerned with a short course training program for problem solving of detailed knowledge about the very wide range of

development planning, but also intended to fulfill a more academic conception and universal thinker which is offered by the universities.

### **Undergraduate Planning Education Program**

The first undergraduate program on Regional and City Planning in Indonesia was established in 1959 at the Institute of Technology Bandung. Since the programme is developed within an Institute of Technology it is not surprising that the planning education program challenged the role and application of technology to solve the problems of regional and city development planning. It is therefore obvious that the emphasis of the program is concerned with the provision of analytical ability, and systematic conceptual method of problem solving formulation within the framework of research and monitoring at every stages of development.

The program generally intends to develop students the capacity to make an effective contribution at the highest academic and professional knowledge and skill of urban and regional planning. More specifically, the program seeks to provide students with:

(a) an understanding of problems and issues on general development planning and specific urban and regional development planning; (b) the capability to understand and formulate the planning process as a systematic way of thinking; (c) understanding the scale and scope of planning; (d) knowledge and develop planning technique and urban and regional planning modeling; (e) the necessary knowledge and skills for operational and procedural planning implementation.

To complete the degree ("Sarjana or Ir.") the students must fulfill 144 units of coursework consists of: 57 units of basic courses, 40 units of basic planning core courses, and 47 units of planning specialization core courses. The program is designated to be completed in 4 years of 8 semesters course, which students may concentrate on one of the following

areas: Regional Planning, Urban/City Planning or Transportation Planning.

Thirty years after its first graduation, the graduates of the Department have spread all over the country. Based on the IAP directory, in 1983 the planning department graduates were mostly on the private planning consultant and construction industries jobs (35.2%), i.e. on the spatial planning and development business. While the rest were muddling through the bureaucratic planning and development activities such as in the Department of Public Works (29.6 %), the Department of Home Affair (17.6 %), Department of Transportation (3 %), Department of Industry (0.4 %), National Development Planning Board (0.8 %) and in the Public Corporation Construction Industries (4.3 %). And it is interesting to note that 6.4 % of the graduates were on the planning education field.

Due to the increasing demand for planning graduates in Indonesia, there are many emerging private universities offering graduate program in planning. The first university which was interested in contributing on the planning education was the Islamic University of Bandung. In 1971, the Islamic University of Bandung started a program on the community development technique. Then it was in 1973 that the program was stressed on Rural Development Planning. According to the policy of the Department of Education and Culture then the program should be converted into a standardize planning education curriculum. The Planning Department established in the Islamic University of Bandung, therefore, is a planning education program melted in line with the islamic way of thinking with more concentrated on the rural and regional development planning.

In 1975, the University of Krishnadwipayana, a private university in Jakarta, opened a planning department program. And in 1978, the University of Pakuan in Bogor, also a private university, established a planning program. The Indonesian Institute of Technology, a private university in Jakarta,

followed the idea of establishing planning department. In East Jawa, a private university, the National Institute of Technology in Malang followed to establish the program in 1985. In Bandung there were also another 3 private universities established a new planning program within their universities, i.e. in the West-Java Public Works Polytechnics 1985), in the University of Winayamukti (1992) and in the National Institute of Technology (1992). Driven by the need of professional planners in the Eastern Part of Indonesia, the Forty Five University (private university) also established a planning program in 1990. There was only one State University, i.e. the University of Diponegoro in Semarang, interested in establishing the undergraduate planning program in 1992.

There is nothing new in the substantive contents of the teaching materials. Their program are required to follow a standardize curriculum which is imposed by the Department of Education and Culture. All of the Universities in Indonesia should apply the standardized curriculum which covers the 50%-80% of the whole programme (called a nucleus or core curriculum), while the rest would be the concentration or the "color" of planning education in each university. Islamic way of thinking, rural and regional planning in the Islamic University of Bandung is an outstanding example.

The standardized curriculum is stipulated by the Department of Education and Culture as a guideline for executing an education program. It consists of the compulsory optional, and emphasized concentrations, while the standardized curriculum refers to the well established program in ITB. It is not surprising that most of the planning education are oriented toward the ITB's system of planning education. This situation urged the universities to make a good coordination with ITB, by performing an annual forum of planning education in Indonesia. The forum tend to make a consensus of possible changes in the style and content of teaching program in planning. There also have been an intensive discussion of the nucleus and core of planning

education, exchange and cooperation among the respective universities.

### **The Graduate Program**

After 23 years of experiences in the undergraduate program in planning education, ITB established a graduate program in regional and urban planning. The graduate program was established in 1982 with the following arguments: there were rapid promotion and responsibility thrust upon recently qualified planners by the creation of Regional Development Planning Boards (BAPPEDAs) and planning division at the regional and local government level. There were also increasing demand for specialist operational development planning skill in the field of housing development, transportation planning and management, rural and regional development and urban environmental planning. It is argued that there was an awareness that a straight forward problem solving approach is more important than sophisticated knowledge about the generalist planning approach. Some experts are needed in particular development planning fields.

The MSc program of the Regional and City Planning in ITB is intended to provide the planning core knowledge to the student and one or more area of specialization which allows the student to concentrate on selected optional courses. There are 3 possible streams which can be selected by the student, i.e. the regional planning, urban planning and transportation planning. To attain the Master of Science in Planning (MSP) degree, the student required to complete: 48 units of courseworks of two full years (4 semesters) of residence, which consist of core courses, area of concentration and a Master's theses. Recently, there has been a change in the ITB's policy of the post graduate program which reduces the number of courseworks: from the 48 units down to 36 units.

The increasing demand of the mid-career planning education to fulfill the development planning expertise in the second tiers of local government, shown that the need are not only

attained by the provision of a short course training program but also emerge as a growing need of post-graduate degree program. In line with the policy to strengthening decentralization at Second Tier of Local Government (DT II Kabupaten), under the co-operation with the government of German Republic sponsorship (executed by the GTZ), ITB was asked to establish a special program for regional development planning at the Second Tier of Local Government. To meet the need of the special program, it is obvious that it should be a particular approach which focus on core knowledge and skills. A typical district planning approach developed by SPRING programme in Dortmund University had been put forward as an alternative approach. But, bearing in mind that there must be a specific Indonesian version, ITB still develop their own idea to run the special program. It is indeed that Indonesia has a quite sophisticated development planning bureaucracy on one hand, and the availability of implementing and academic capacities on the other hand, which are an erratic and unpredictable characteristics of Indonesian regional development planning. Finally, ITB challenged it, by establishing the special program to be tailored within the existing program in 1992, i.e. a sharper focus on core knowledge in regional, district and rural development planning; concentrated in three semesters of field workshop to develop the professional skill of the students.

In 1993, a special program of Urban Management was also launched to meet the pressing need of the Municipal Government. The program is aimed at enhancing knowledge to identify and to seek a problem solving method to cope with the problem of urban management. The knowledge, skill and attitude which are promised by the program are firstly required to master the core courses and secondly there are concentrated into the area of specialization (i.e. land management, policy analysis, communication and negotiation skill, evaluation and monitoring techniques, etc.).

Despite the fact that the graduate planning education in ITB is developed originated from the undergraduate education, there are many interest of academics in related discipline in contributing to the development of a graduate planning education within their universities. The most notable interest in developing a graduate planning education has been the efforts of the Agriculture Institute of Bogor. The program was started in 1979, from the experiences of conducting a 3 month mid-career training courses on the Regional and Rural Development Planning, then with the initial support from USAID and Ford Foundation it developed into two years course of a graduate planning program. The philosophy behind the program is based on the real problems-orientated in relation to the regional development which is supported by a rigorous theoretical conception of three pillars (i.e. the physic-biological aspect, economical aspect and regional institutional support system). The program had been disseminated into several universities outside Java. In the Sumatra island there had been disseminated into two state Universities : the University of North Sumatra in Medan and University of Andalas in Padang, while in the Island of Sulawesi had been another two universities: the University of Hasanuddin in Ujung Pandang and University of Sam Ratulangi in Manado which established the graduate program on the Regional and Rural Development Planning within the past two years.

The interest of academics of the Architecture discipline in contributing to the subject and teaching planning is quite substantial, as shown in the University of Hasanuddin (Ujungpandang) and the Gajahmada University (Yogyakarta). The University of Hasanuddin had established an Urban Management Graduate Program, while the Gajahmada University is establishing a new MSc program ( a 43 units of coursework within 15 months ) of City and Regional Planning.



## **The substantive content of planning education: academic and professional challenge**

The academic contents and substantive issues of planning education in Indonesia can be traced in line with the historical review of the development stages in Indonesia. In the 1950's the development planners were challenged by the need of rebuilding, reconstruction and rehabilitation of post-war situation. The replacement, adaptation and the introduction of a new Indonesian development system to substitute the Dutch colonial system had a very difficult situation. While the provision of skilled development planner were seriously lacking behind the need of the development activities. The need of professional development planning were fulfilled by the civil engineer and architect or even by other unrelated development expertise.

Therefore in 1954, the National Development Planning Board and the Ministry of Public Works started to prepare a program of higher education in regional and city planning. A new institution to cope with the problems of physical development was established within the Ministry of Public Work, i.e. the Planning Division. In 1959, the Ministry of Public Works with the technical and financial sponsorship of the United Nations Technical Assistance Bureau (UNTAB) established a Regional and City Planning in the Technical Faculty of Indonesia University (later known as Institute of Technology Bandung - ITB).

During the early establishment of the Institute, i.e. during the Dutch Colonial Administration in 1920's there was only a city building construction which was offered in the Civil Engineering department. Then in the early 1950 the course was extended as the establishment of the Department of Architecture, and a City Planning course was introduced within the context of urban architectural design. Then in 1959, the planning course was also extended in the new established department. It would appear that the development of planning education in the Department of Regional and City Planning -

ITB is based on a unique tradition concern which emphasize on design and engineering drive.

In the first five years, the Department of Regional and City Planning - ITB, with the support of the UNTAB was operated by the teaching staff of Harvard University and other universities of USA. There were Professor J. Thyrwitt, W. Alonso, W.A. Doebelle, F.W. Ledgars and other Western scholars who made considerable contributions in the initial development of the education program, which was an under graduate planning education program.

The aim of planning education therefore is to produce an expert with the capability to understand and develop: firstly, integrated system of physical (or spatial) development planning in regional and urban, in line with a rational comprehensive within the framework of multi-discipline approach, which concerns on the physical/spatial aspects (natural and man-made environment) and the a spatial aspect (i.e. social, economic, cultural and political aspects); and secondly, to have the capability to formulate and interpret a comprehensive spatial planning at regional and city levels for the future within the long and short range of development regarding the needs, problems and potential of the communities in the defined planning area.

### **The Curriculum Development in the Department of Regional & City Planning - ITB.**

It is interesting to note that the influence of Harvey Perloff agenda for the education of planner have a considerable impact on the Department. Perloff agenda has been described as a traditional core (Alonso, 1989), which is "a tripartite consciousness: knowledge of the social, economic, geographic and political dimension of cities; and understanding of planning processes; and a mastery of methods for design and quantitative analysis".

After 35 years of experiences in (under graduate) planning education, the Department of Regional and City Planning - ITB has conducted a consistent path, there are no gradual change of the traditional core. However, the evolution of planning education and changes are merely due to the response of the need and adaptation of teaching material in line with the current stages of development policy and the use of technology in Indonesia.

The Structure and Content of the Course, according to general rule should consist 144 - 160 semester credits unit. The program is required to be distributed into:

- a) basic courses, such as mathematics, other basic sciences, and engineering sciences.
- b) core courses which are covering the basic ideas; history; analytical methods and synthesis; system and planning approaches; and basic knowledge as a back-ground of other subject and other professional discipline which are required and related to planning.
- c) area of specialization or concentration.
- d) integrated planning workshop/studios and the terminal planning report/writing.

The idea of broadening planning education tend to include major contributions from a number of related disciplines which is represented in the core courses. The core courses refers to series of areas of knowledge and skill which all the student are required to take and master the content which represents a minimum knowledge and skill that expected from the students to know. The students are provided by the core courses as a foundation upon which areas of specialization are built, that designed an overview of (1) the basic idea, (2) nature/characteristics/history, (3) analytic methods and (4) an organization problems

The main elements of the core courses are :

- a) **planning theory**, i.e. the historical perspectives, theory and the planning process which consists of the basic philosophy from the idea that planning as rational-comprehensive approach, as a

political and public policy analysis, as management and as social learning, social reform and social mobilization, etc.;

- b) **planning techniques and methods**, i.e. mainly several methods such as the quantitative analysis, modeling, spatial analysis which consists of teaching and computer-based workshop to provide professional skill on planning techniques and methods, etc.
- c) **spatial organization & structure**, i.e. location theory, land use, spatial organization and structure which intended to provide basic knowledge on the principle of spatial planning etc.
- d) **natural resources development and environment** , geographical analysis, natural resources, resources allocation, and environment, etc.
- e) **human resources development**, demography analysis, urbanization, social mobility, employment analysis, etc.
- f) **infrastructure development**, transportation, drainage system, sewerage system, etc
- g) **development management**, public administration, financing, law & regulation, etc.

It is interesting to note that the substantive contents of the courses has evolved according to the changing of the technological development, social and political context. After 35 years experiences in running the planning education in ITB, there has been consistent idea of core course from time to time. What actually changed are the proportion of each core courses, as shown in the following changes in certain period of established syllabus:

In the first period of 1959-1964, the emphasis was on the understanding of the development planning of city and regional physical characteristics; while there were

concentrating in developing the method of land use planning process and planning alternatives generation.

The second period of 1964-1969 the syllabus concentrated on the infrastructure development core in which the integrated transportation development system approach was introduced; and in this period was characterized by the development of regional analysis method.

The third period of 1969-1973 the syllabus concentrated on the development of the quantitative analysis method; while there was an intensive development of the application of

system approach within the context of environmental condition in the regional and urban planning.

In the fourth period of 1973-1979 there was no substantial change and development compared with the third period. It is interesting to note that in the first three period the content of Planning Technique and Methods courses were quite significant, but the proportion was decreased in the fourth period, while there were more emphasize on the Spatial Organization & Structure Courses, and Natural Resources Development & Environment Courses.

**The proportion of Planning Core Courses delivery in the Undergraduate Program of the Department of Regional & City Planning - ITB since 1959**

The fifth period of 1979-1987 had a considerable change in the Infrastructure Development Courses, by introducing the transportation economy and policy courses. This period was characterized by the strengthening of the transportation planning as an area of specialization. There was increasing proportion in the Planning Technique and Method courses due to the widely use of micro- computer.

The sixth period of 1987-1993 was the period of solid consolidation of the following 5 elements of the courses:

- 1) Development Planning Problems and issues
- 2) Regional and City Planning Process
- 3) Information System for Planning
- 4) Analysis and Planning Techniques
- 5) Development Planning Implementation Mechanism

It is within this sixth period that the courses were more emphasized on the development processes that had been learned from the Indonesian experiences, the solid consolidation had also imposed the Indonesian development planning practices as a case study.

The seventh period of 1993 - now is continuing the sixth period, but there had been squeezing several courses into a more solid and consolidated core courses. By squeezing the courses ITB intends to have more chance to offer area of specialization and to have a more elective courses on development operational action- oriented course. The planning education program of ITB therefore having the tendency of increasing the area of specialization, which intend to exercise a better solution for Indonesian development planning problems. According to the faculty interests there are number of the following area of specialization: regional planning, city planning, and transportation planning; which has been stated as the main formal area of specialization of the ITB's Department of Regional and City Planning. While there are another faculty interest contributing their knowledge and skill in the Laboratory of

Spatial Computation Analysis dealing with the development of planning information system, GIS, urban and regional analysis and planning models, and other application of computers in planning. The city planning group tend to concentrate on the spatial and physical planning aspects concerning the field of urban design, new town development, urban renewal and preservation, while other faculty staffs are interested in the policy analysis, administration and management concerning the urban land and urban management, development control and institutional arrangements. The regional planning groups are not only interested in the field of regional development planning but also in the global effects of the system of cities, the emerging of megaurban in Indonesia, the desa-kota phenomena and even the rural development and district planning are tend to be the area of interest as well. It is within the bound of possibility that after being accumulated within the intensive researches or project works those area of specialization to be offered as a course either in the undergraduate program or in the graduate program.

The Department of Regional and City Planning, ITB, believes that field workshop in the curricula has a very important role, since the objective of planning education is professionally oriented. It is (only) in the field workshop that students have the opportunity to apply and synthesize the various skills and knowledge employed by the professional planners (Westmore and Heumann, 1988) rather than sitting in a conventional lecture. The field workshop plays a central part in development of students' problem solving, prescriptive abilities of the real planning profession and continuous relations with local authority and the community.

The field workshop tradition has been implemented since the very beginning of the establishment of the Planning Department in ITB. Firstly the students are required to work as a team on the application of "planning process" in a small district. Then the student should complete a field workshop/studio on a

more complicated problems of city, region or they may also choose the case of transportation planning. Workshop to produce a site plan or urban design of a residential areas, industrial estate, central business district, civic center, or campus planning is also offered as an optional workshop for the students who are interesting in the physical aspects and urban design of the city. And lastly as a final assignment optionally the student are allowed to complete a project work, rather than a theses writing.

The workshop is also required for the graduate planning students, either under the "project and case study" or in a more special workshop of the preparation of district/regional development plan of a Regency. The method and level of instruction are ranging from the low "bread and butter approach", application of a simple method of analysis, planning and design; up to implementing the computerized information technology and sophisticated development of planning techniques & methods. The workshops are considered as the most effective way in acculturating students to the profession.

There have been significant changes due largely to the combine effects of the arrival of the wide ranging system approach, and the broadening of planning education's academic base to include major contribution from a number of related discipline.

### **Conclusions**

Perhaps this article can be criticized to be too much on the ITB oriented planning education rather than describing the current development of planning education in Indonesia. But it is within the possibility that the problems of planning education in ITB may also reflects the problem of Indonesia.

Having described the current problems, issues and challenge of planning education in Indonesia, it can be concluded that there are several main issues persisted in the

development of planning education in Indonesia as follows:

- 1) It can be argued that the spatial and physical planning should not be the only emphasis of planning education, a considerable changes should be made regarding the broadening of planning education's academic base to include major contribution from a number of related discipline.
- 2) There have been significant changes due largely to the combine effects of the emerging of the wide ranging planning approaches, which are reflected in the following and the dialogue:
  - a. tend to be more specialized planning product rather than a generalist planning product.
  - b. emphasizing on the rational planning methods versus the bureaucratic planning procedures (rely on administrative planning management process),
  - c. focusing on the problem-solving approach rather than comprehensive approach,
  - d. based on the practice of the issue in the real problems rather than anticipating the academic conceptual future,
  - e. lack of data and information provision while there are many sophisticated computerized planning tools.
- 3) There are pressing needs of the mid-career in planning education, which should be fulfilled immediately by a straight forward problem-solving oriented rather than by graduate program for planning education. The fact that a global analysis regarding the conceptual academic theory are required to anticipate the ideal future leads that there should be a good cooperation among the development planning institutions with the related Universities. The cooperation range from involving the contribution of the University into a training program to the

establishment of a graduate planning education program suited with the realistic demand of the mid-career position in the development planning process.

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