CORE COMPETENCIES FOR RIPARIAN OFFICIALS IN DEVELOPING THE MEKONG RIVER: A DELPHI STUDY TOWARD A MODULAR TRAINING PROGRAM

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SUCHAT KATIMA
This Delphi study was conducted in Cambodia, Laos, Thailand and Vietnam in 2004 to find out the views of two groups of experts on required competencies for riparian officials in developing the Mekong River. The first group of experts was composed of fifty internal experts selected from over 500 riparian officials in the regional and national institutions under the Mekong River Commission (MRC). The second group of experts was composed of twenty-five external training and river basin experts from 10 countries who have been involved in the MRC works.

Specific research questions are: 1) What is the profile of the research respondents (external and internal experts) in terms of nationality, gender, educational attainment, level of responsibility, and nature of involvement in the development of Mekong River Basin? 2) What is the extent of importance of each of the following core competencies to the performance of riparian officials involved in developing Mekong River as expressed by the external and internal experts: Communication, Facilitation, Information Literacy, Cultural Competency, Innovation & Proactivity and Team Skills? 3) Is there a significant difference in the perception of the external and internal experts in the following competencies: Communication, Facilitation, Information Literacy, Cultural Competency, Innovation & Proactivity and Team Skills?

The set of core competencies is the complex combination of skills, knowledge and abilities demonstrated by human resource of an effective organization in the age of
information economy. Evidences show that core competencies required for transnational workforce in the present era are far more different than those praised in the last century. Since its emergence in the early 1990, there has been considerable writing on the subject of core competence, yet thus far, researches have struggled to progress from interesting ideas to what could be considered a cohesive theory. The main principles necessary for developing what could be considered a theory of core competence remain poorly defined. Furthermore, a hybrid curriculum which integrates and interweaves competency-based model with normative system approach, has yet to emerge.

To obtain the necessary data, the research was carried out in three progressive rounds: round one using questionnaire; round two through in-depth interview of selected respondents; and round three by obtaining feedback and recommendations from the two groups of experts through an internet wall room. The proponent of this study made use of the following formulas in presenting and analyzing the data: relative frequency distribution, weighted mean, and t-Test.

Findings reveal that all of the proposed performance competencies are described as “Very Important” to the performance of riparian officials involved in the development of the Mekong River. This means that every riparian professional must demonstrate his/her knowledge, skills, and abilities in accordance with the stated performance indicators of each competency. To have a superior performance in this transnational setting, a riparian official must be a master facilitator, with great information management and communication skills, who can lead a virtual team of diverse cultures through world class information technology and sound decision support framework.
Out of the six sets of competencies, three of them were perceived in the same way by both groups. They are Facilitation, Information Literacy and Innovation & Proactivity. However, the two panels show a significant difference in their perspectives on Communication, Cultural Competency and Team Skills. This illustrates that the external experts value these core competencies more than the internal experts. This difference in their perceptions might have been influenced by their respective organization cultures, working norms and social values.

In addition to the six sets of performance competencies, knowledge and skills in Integrated River Basin Management (IRBM) has emerged during the course of study as the most important set of functional competencies that must be acquired and demonstrated by the riparian officials. This IRBM includes strategic management, program management, and integrated river basin planning.

As implied in the study, both basic functional competencies and performance competencies are required for every riparian official involved in developing the Mekong River. To build a culture of competence in its workforce, the MRC should capitalize on these core competencies because there is a very strong linkage between the organization competency and the human resource capacity. The sets of skills and knowledge areas developed through this study have been carefully selected and thoroughly deliberated by the experts. The agreed sets of competencies may serve as management tool in various aspects of the organizational development: in applying standards to curriculum and resource development; in career guidance and management; in staff selection; and in making benchmarks across occupation in the MRC system.
The study further reveals that to realize the vision of the Mekong Basin - “economic prosperous, socially just, and environmentally sound, Mekong River Basin”, women, the main users of water resources, must be included in every stage of basin planning and development. Under the present situation, women are under represented in the planning and decision making levels and often excluded from participating in major development activities.

The main output of this study is the IRBM Training Program which aims to equip the riparian officials with the carefully selected functional and performance competencies. This prototype training program should be used widely by internal and external training institutions to assure that all the riparian officials have access to training opportunities that are competency based, related to essential services of a river basin organization and developed from sound educational principles. It is highly recommended that this prototype training package be localized by training national trainers to use the manual, making it available in the four riparian languages and disseminating them widely to create critical masses in the IRBM.

While the basic functional competencies are river basin organization specific, the performance competencies identified in this study can apply to all personnel of international organizations and multinational corporations. It is highly recommended that further in-depth study be conducted on the proficiency levels of each performance competency that are required by different positions in the organization as well as specific skills, knowledge and abilities required by different elements of an international organization.
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CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS

Introduction

The connection between education and human resource capacity in this contemporary period of increasing cross-border movements, transnational processes, and the accelerated flow of capital, commodities, culture, and people pose challenges to all educators: How should the workforce be developed within (and for) an increasingly global context? (Mitchell 2). What kind of education system would prepare young professionals for the modern dynamic environments which are bigger and more diverse than they used to be, change more quickly than they did in the past, and more powerful and competitive than ever before. Evidences indicate that the intensifying forces of globalization, especially the rapid and large-scale movements of people, commodities, and capital across borders, are influencing public discussion about education and its roles in multicultural society.

The world has changed and the required competencies with it. Essential skills, knowledge, and abilities required for today’s workforce are far more different and more complicated than those in the past. The traditional corporation is becoming a thing of the past. Efficiency and economics of scale, two dominant 20th-century themes, have been replaced by new values: teamwork over individualism, multicultural competence over nationalism, and customer-driven focus over short-run profits. Only fluid, flexible, and
highly adaptive organizations will thrive in the fast-paced global economy (Carrel, Elbert and Hatfield 29). New hybrid approach to education must be found. The approach that can implant convergence of skills and competencies needed for global workforce: communication, higher-order symbolism, information literacy, habits of work and interpersonal sensibilities that are common in any international setting which is characterized by the “politics of recognition” and the culture of “multiculturalism”(Suarez-Orozco 13).

Rationale of the Study

The Mekong River Commission (MRC) has been selected as the research environment for this study mainly because of its transnational nature and multi-cultural settings. The lower Mekong River Basin covers major areas of the four riparian countries – from the Northern Highlands of Laos, through Korat Plateau of Thailand, to Tonle Sap Floodplains of Cambodia and the Mekong Delta of Vietnam. The works of MRC affect the socio-economic conditions of over 60 million basin peoples. With the signing of the 1995 Mekong Agreement, the roles of MRC have been transformed from the “Dam Builder” and river resources explorer to a more transnational and development-oriented organization. (In accordance with the Mekong Indicative Basin Development Plan developed in early 1980, the Mekong Committee, the former body of the Mekong Cooperation, in fact, had recommended to build 12 hydropower dams across the mainstream). To implement these changes successfully, the capacity of human resources to initiate, implement, and absorb change, appears to be most critical. In fact, after several attempts on restructuring and improving the organizational frameworks in the past five years, many stakeholders started to
realize that it is not the structure or policy framework of the organization but the human resource capacity of the organization that would make the difference. This raises the importance of the research problem to find out what limit the riparian officials (Thais, Laos, Cambodians and Vietnamese) from contributing fully to the work of the Commission. Is it the lack of basic competencies that hinder the absorbing and implementing capacity of riparian officials assigned to different core programs? Or, have they been given wrong diagnoses to the training needs and priorities by external training service providers?

MRC as an organization is a living organism characterized by its people, not its structure. Lessons learned from the MRC capacity building programs in the past five years showed that things did not work that way. It is the people, not the structure that move the organization forward. People are not only resources, they are the source of power. All aspects of organizational development rely heavily on adequate staff: staff to develop policy and legal frameworks, and staff to manage and develop the necessary institutions.

Unfortunately, majority of the riparian officials (the researcher included) are the product of yesteryear school. This traditional education system is characterized by its rote learning, banking system and specialization. Although it had been highly successful in the past when the organization needed experts to explore and investigate the Mekong River, it can no longer serve the needs of the new mandates where multicultural competency, information literacy, team skills and proactivity are more important than the narrow view of “specialists.” Education in the riparian countries was, until recently, an act of depositing, in which the students are the depositories and the teacher is the depositor. Many riparians were not trained to think critically, creatively and innovatively. The new foundation of learning
like information literacy, goes beyond interpreting and reinterpreting existing knowledge, something the riparian mind has not been trained to do, so far.

MRC, like other multinational organizations, has to acquire and develop its human resource in new competencies which are needed in this new era. Globalization and “Transnational” mean the creation, organization, and management of multicultural teams – groups that represent diversity in functional capacities, experience levels, and cultural backgrounds. Lindemann elaborates the educational focus of new era as follows: “Diversity in the workplace and multiculturalism in international enterprises both engender the need to compare, contrast, and understand cultural differences in a new way, a way that does not attempt to make everyone alike but recognizes differences as a plus. . . .” (5). New education and development strategies are needed for teaching existing staff of the organization how to lead, work with, and communicate with multicultural teams; how to get access to, analyze and use needed information effectively, and how to manage and facilitate the organization’s knowledge capital.

To enable a riparian official to contribute effectively to the development of the Mekong, he/she must have two demonstrated abilities: being thorough in his/her area of expertise and being equipped with basic competencies required by the organization. These requirements are based on the conviction that only a person who has acquired these basic things will be able to utilize his/her specialties. Based on the result of this study, the researcher classifies the required competencies into three interrelated and interdependent sets of skills namely: Facilitation Capabilities, Information Management and Integrated River Basin Management.
The ultimate aim of this study is to acquire national and regional experts’ opinion on the proposed sets of core competencies which a Cambodian, a Lao, a Thai or a Vietnamese must demonstrate as the foundation that would enable him/her to become successful in working in the international arena like the Mekong Cooperation. This is a Delphi Study which is based on a structured process for collecting and distilling knowledge from a group of experts by means of a series of questionnaires interspersed with controlled opinion feedback. The panel of experts is composed of two groups of MRC stakeholders: a) key personnel of the Mekong River Commission, b) HRD professionals and regional experts who have been providing training and educational services to riparian officials in the last five years. These experts’ judgement and opinions were then analyzed and used as the bases for a modular training program.

Core competencies identified in this study may serve in various aspects of HR and organizational development as management tools: for use in quality management and review of standards; for applying standards to curriculum and resource development; for use in the development and implementation of assessment; for use in recognition of prior learning and current competence; for use in career guidance and career management; for use in staff selection; providing valuable benchmarks across occupation in employment related areas and a clear milestone for riparianization program. As river basin management has become more sophisticated because of the participation of all stakeholders, there is a great need to increase core competencies of riparian officials, especially in the area of facilitation, communication and information management. This is to ensure that the decision on any development initiatives is based on valid information, free and informed choice, and internal commitment.
Since its emergence in the early 1990s, the notion of core competence as a means to build human resource capacity has intrigued both managers and academics. Since that time, there has been considerable writing on the subject of core competence, yet thus far, researches have struggled to progress from interesting ideas to what could be considered a cohesive theory. The main principles necessary for developing what could be considered a theory of core competence remain poorly defined. Furthermore, a model which integrates and interweaves competency-based model with normative system approach, has yet to emerge. As far as the researcher's knowledge, competency-based training programs initiated in the riparian countries are still confined to developing technical competent for a particular job. Core competencies for riparian officials in developing the Mekong river are the newly-emerged areas of practice which have yet been thoroughly researched on.

**Statement of the Problem**

The objective of this study is to identify and prioritize knowledge, skills and abilities which are required by the riparian officials involved in the development of the Mekong River. The researcher used Delphi method in selecting “river basin experts” to be in the panel and in processing the communication between the researcher and the “experts” in order to develop themes, needs, and directions about the core competencies. In the process, the study will also find out if there is a significant difference in the perception of internal experts (riparian officials) and external experts (training service providers) in the initial list of competencies. To achieve the objective, this study has been carried out to answer the following specific questions:
1. What is the profile of the respondents (external and internal experts) in terms of:
   a. nationality
   b. gender
   c. educational attainment
   d. level of responsibility
   e. nature of involvement in the development of Mekong River Basin?

2. What is the extent of importance of each of the following core competencies to the performance of riparian officials involved in developing the Mekong River as expressed by the external and internal experts?
   a. Communication
   b. Facilitation
   c. Information Literacy
   d. Innovation & Proactivity
   e. Cultural Competency
   f. Team Skills

3. Is there a significant difference in the perception of the external and internal experts in each of the following core competencies?
   a. Communication
   b. Facilitation
   c. Information Literacy
   d. Innovation & Proactivity
   e. Cultural Competency
f. Team Skills

The results of this study (the profile, the agreed competencies and the analysis of the differences in the perceptions) were then used as bases for the development of a modular training program for the river basin organization as shown in Appendix 9.

Significance of the Study

For the Mekong River Commission

This study is significant on several accounts. First, the study gives a better perspective of where the organization stands in terms of required human resource capacities and normative profiles. Second, these analytical assessment results are valuable for the formulation of the organizations’ human resource development programs. As once said by Abraham Lincoln, “If we could first know where we are and whether we are tending, we would then better judge what to do and how to do it.” Third, the core competencies and performance standards developed as the outcome of this study can serve as the manpower planning and recruitment framework for both regional and national institutions under the MRC system.

For the Member Countries

The results of this study may serve as the benchmark or basic requirements for selecting and appointing riparian officials to be involved with the work of the Mekong River Commission and in other international and transboundary arenas which require a similar set of core competencies. As once said by Dr. Arthit Urairat, the former MRC Council Member for Thailand, on the eve of the October 2000 Council Meeting in Phnom Penh, “Before
sending someone to sit behind the flag of our nation in the international arena, we must ensure that the delegate has demonstrated skills and abilities to deliver what we want to send to and get what we want to have from the event.” Having a clear set of core competencies as a screening tool would ensure that the selected technical competence officials have performance capabilities to carry out the assignments and produce desired results.

For the Donor Communities and Key External Stakeholders

The results of this study can serve as the baseline information and reference for preparing financial and technical assistance to the Commission and the four National Mekong Committees in the future, especially in the area of capacity building of agencies involved in the Mekong development. For regional training institutions, the identified competencies can be used as bases for developing learning objectives, curriculum and training modules that directly respond to the needs and priorities of the Commission’s human resources. The results of this study (the findings and modules) can also be used by national and regional experts who are involved in the study, as a prototype process which can be replicated widely in the future.

For Education Management

In the field of education management, the study will contribute to the development of the Integrated Modular Training Program and competency-based education. This futuristic concept of learning, which has been recognized by many countries, has yet to be fully explored in the four riparian countries. The study, hopefully, can prove that, many “deadwood” - the product of yesteryear school and “legacy people,” whose skills have become obsolete, can in fact be retrained and retooled for the new working environment.
This is to be done by focusing on the development of their foundation or basic competencies for global citizenship – communication, high symbolism, multicultural skills and information literacy. Particularly for the academic institutions which have been the training service providers in the region, the study aims to prove that core competencies have to be clearly identified first before these can be used as framework for designing an effective training program that is relevant to the challenges of the new millennium and responsive to stakeholders’ expectations. All education managers are human resource development facilitators. By mastering these core performance competencies, education managers can serve effectively as teachers and trainers, counselors and negotiators, team leaders and coaches. These are the very skills needed in today’s new style of education management.

For the Peoples of the Mekong River Basin

The study will help to ensure that the development activities in this international river basin will be carried out by competent riparian officials for the benefit of the peoples of the basin and its environment. River basin planners are integrators of knowledge and of people. They should have the best overall understanding of the basin and its planning issues and they should know who the relevant stakeholders are and who should be involved. Therefore having technical competence river basin officials who are committed to a knowledge-based approach and effective stakeholder engagement is vital to the sustainable development of the Mekong Basin – meeting the needs and keeping the balances.
Scope and Limitations

Content

The core competencies focused in this study are limited to the essential knowledge, skills, and abilities that are considered important for all riparian officials involved in the Mekong basin-wide cooperation in six competency areas. These are not technical nor specialized competencies but a set of basic requirements that apply to all personnel regardless of professional position or assignment in the regional/transnational arena. They cut across the organizational structure: from senior managers/policy makers to all other employees in different positions throughout the river basin organization. However, these competencies may be required at different proficiency levels and in varying degrees based on the position. Specific technical competencies are not included in this study since they are job specific in nature and are normally covered in the specific job requirements.

The Modules

Converting competencies to curriculum and translating them from the curriculum into training modules have been completed under this study. However, the training modules developed from this study will need further adaptation and modification to suit the learning styles, interest and absorbing capacity of the learners. A proper training needs assessment (TNA) and norm pack assessment should be conducted first for effective administration of the modules. The result of needs assessment will then be used as the basis for developing a training plan for the identified group. Curriculum development is a cooperative venture among trainers, supervisor, curriculum experts, learners, and other stakeholders. This module
development is the first step to make i.e. identification of the direction of change a prototype package to be adapted. It is a working document and the framework of the training and development program of a regional river basin organization.

Respondents

The panelists are limited to two groups of the organization stakeholders: a) those who are or will be directly affected, i.e. members of the five institutions of Mekong River Commission and members of tributary river basin organizations, and b) external experts who have applicable specialty and relevant experience, plus individuals who can supply alternative global views of the culture and society, i.e. well-known professionals in the Greater Mekong Sub-region (GMS).

Locale of the Study

The study was conducted in the four riparian countries, i.e., Cambodia, Lao PDR, Thailand, and Vietnam. National institutions and regional institutions included in this study are the Secretariat of Mekong River Commission, Cambodian National Mekong Committee, Lao National Mekong Committee, Thai National Mekong Committee, and Vietnam National Mekong Committee and five tributary river basin organizations in Thailand.
Definition of Terms

There are a number of key terms that are used in a variety of ways in different organizations and circumstances. Some specific terms used in this study need to be operationally defined.

**Competency.** Refers to a combination of knowledge, skills, and abilities that are directly related to successful performance on the job. Demonstration and assessibility are key contributes of the competency concept.

**Core Competencies.** Core Competencies are the knowledge, skills, and abilities that are considered important for all staff of the organization being study, regardless of their function or level. These basic competencies are derivative from functional elements of the organization.

**Delphi Study.** A Delphi Study is based on a structured process for collecting and distilling knowledge from a group of experts by means of a series of questionnaires interspersed with controlled opinion feedback. The Delphi Study processes essentially an interactive communication structure between the researcher(s) and experts” in a field in order to develop themes, needs, directions or prediction about a topic. Questions can be asked of the “experts” and the information is then analyzed and fed back to each person, via further questions, and their responses are analyzed and fed back, and so on, until the goal is reached, that is when a consensus is reached which offers synthesis and clarity on the question.

**External Experts.** As used in this study, the term external experts are those professionals who are invited to participate in this research because of their demonstrated knowledge, skills and abilities in the study areas and their past association with the Mekong development.
Internal Experts. Refers to the riparian officials who are selected to participate in this research by the researcher in consultation with the MRC Management. They represent riparian officials working in all three levels of the MRC system, i.e. program, national and regional levels.

International River Basin Organizations. International river basin organizations are formed to promote integrated and balanced water sharing among member countries. There are now some 260 international river basins. Together they cover 45 percent of the earth’s land surface and carry 80 percent of its fresh water. They include parts of 145 nations. Some well-known river basin organizations are the Danube River Basin Commission in Europe, the Murray Darling River Basin Commission of Australia and the Niles River Council in Africa.

Mekong River. Is one of the longest rivers which emerged from the melting snow of Tibet mountain. It passes through six countries i.e. Yunan Province of China, Mynmar, Laos, Thailand, Cambodia and Vietnam. There are over 75 million peoples living in the Mekong River Basin.

Modular Training Program. Refers to a training and development program which use competency-based development process, integrated curriculum and service learning approach. Each training module consists of three different things: the content, the learning experiences and the reflection on the new learning and experiences. A modular training progresses in three interrelated phases: “learn to do” (cognitive), “do to learn” (psychomotor) and “share to learn” (affective).
Riparian countries. These are countries which have part of their territories situated in an international river basin. In this study, the riparian countries are the four member countries of the Mekong River Commission, i.e., Cambodia, Laos, Thailand, and Vietnam. Though China and Myanmar are also riparian countries of the Mekong System, they are not members of the MRC.

Riparian officials. Refer to those personnel who are Cambodians, Laos, Thais, and Vietnamese working for the MRC Secretariat, the four National Mekong Committees, Line Agencies and the MRC Programs in the four countries.

Riparianization. Refers to the directing, controlling, and managing of the organization and its development programs by the four riparian governments, with capable riparian personnel for the benefit of the riparian peoples.
CHAPTER II

REVIEW OF RELATED LITERATURE AND RELATED STUDIES

This chapter gives a discussion of information and studies related to the present study on the core competencies which are required by modern workforce. As expressed by Suarez-Orozco “Globalization is the product of new information and communication technologies that instantaneously connect people, organizations, and systems across vast distances . . . - freeing people from the tyranny of space and time. These new technologies are rapidly and irrevocably changing the nature of work, thought, and the interpersonal patterning of social relations” (4). The world has changed. No longer do they have grinding production lines or clerk-filled office blocks ready to receive the output from scholastics’ factories, tutored to be polite, complying with the whims of magisterial management. Because new technology requires higher capabilities in information management, flexibility and adaptability (not routine and specialized), cooperative teams, and communication skills (not assembly-line production types of skills) are required; it is imperative that human resource of a world class organization like the Mekong River Commission acquires and utilizes new sets of core competencies. For the organization to survive, not to mention grow, in today’s dynamic and turbulent environment, key performance competencies must first be mastered across the organization.
RELATED LITERATURE

The convergence of skills and competencies needed for modern workforce are not limited to the technical competencies and habits of work only. Diversity – both domestic and international – will be the engine that drives the creativity of the corporation of the 21st century. Karpin illustrates this by describing the senior manager of the future.

The profile of the senior manager in 2010 will be a world away from the profile of most of today’s managers. There will be more women and more people from different ethnic backgrounds, in management by 2010. They will be graduates, probably with an MBA as well. Their careers will be varied and they will have worked in different jobs, all over the world. They will have global focus and be comfortable in either regulated or deregulated economies. They will share information and delegate heavily to a workforce that may well span different countries. Their environment will be constantly shifting around them and their appointment will be short term. Not surprisingly, they will be subject to high pressure and driven by results. This is the manager of the future we need if we are to become internationally competitive. (11)

A. Communication Skills

Communication competence is an assessment of the appropriateness of communication behavior made by the participants in an interaction. These assessments may differ because “meanings are in people.” Competence can vary with context because some persons are more competent in some settings than they are in others. In particular, a
A competent communicator is someone who, over time and in specific contexts, is perceived by others as intentionally selecting appropriate communication skills to achieve mutually desirable outcomes (Burerkel-Rothfuss 26).

There are five basic communication competency categories, as elaborated by Burerkel-Rothfuss: symbolizing, processing, adapting, controlling, and expressing (26). Symbolizing and processing underlie all other sets of communication skills. Adapting, controlling, and expressing abilities allow communicators to demonstrate communication competence in actual interaction. The communication skills that make up each of the five categories are used in combination to create overall communication competence.

The ability to symbolize is the basis for all communication interactions. The ability to convey thoughts, experiences, and so on into words and non-verbal symbols form the what of the communication process. Processing skills then enable symbolizers to make sense of the symbols they receive and to anticipate how the symbols they send will be understood by others. Adapting, controlling and expressing are treated as higher-order functions that permit human beings to interact with one another. These three functions build on a person’s ability to symbolize and process, but they actually go beyond the latter two functions by allowing communicators to adapt to changing circumstances, to exert influence over a communication transaction, and to share expressions of feeling with others. (Burerkel-Rothfuss vi)

The foundation level of communication skills required for every employee of an organization, in accordance with RMCP’s Communication Competency (1), includes the ability to present issues and information orally and in writing in a clear and concise manner, tailor communication to suit intended audience, recognize non-verbal communication and
symbols, exercise bilateral communication, and project a professional image. At the higher level, modern workforce should strive to present complex issues with clarity, credibility, and impact in widely varied forums, provide on-the-spot answers regarding complex and/or organizational issues that reflect an awareness of the sensitivities and interests of diverse individuals and groups including media, senior public officials and interest groups, capitalize on existing communications tools and strategies and create new ones to ensure effective internal and external communications, promote organizational awareness by disseminating information to appropriate levels.

The Jacobs Management Center of University at Buffalo School of Management defines communication skills as “Written and oral ability to clearly and convincingly express thoughts, ideas or facts in individual or group situations”(1). Effective communication should be concise and clear. An individual can demonstrate his/her communication competence by speaking with confidence, soliciting feedback whenever possible, maintaining eye contact during communication, listening actively and modifying the style to fit the person or situation (6).

Communication has been examined from a number of perspectives in the past. Most recently, communication scholars have adopted a transactional, process-oriented approach to communication, viewing it as a multi-directional, interactive, dynamic process rather than a static, one-way sending of messages.
B. Facilitation

Never before have organizations been bombarded from so many directions with so many demands for change. The need to be competitive tempts organizations to focus on maintaining control, while highly educated employees demand freedom as the price for the employer’s use of their creativity and innovation. Organizational success—indeed survival—demands that leaders find new ways of turning “knowledge power” to competitive advantage by creating an environment where organization members find more value in opportunities for growth than they do in salary and benefits.

Because of these demands for change, more and more managers and other individuals, in business, large and small, are now called upon to act as facilitators. They must marshal the skills necessary to serve as teachers and trainers, counselors and negotiators, team leaders and coaches. These are the very skills needed in today’s new style of management, with its emphasis on coaching, collaboration, flexibility, communication of a sense of values, and shared respect for everyone in the organization (Kiser 2).

The main belief behind group facilitation as explained by Hunter, Bailey, and Taylor is that full cooperation between all people is both possible and desirable. Values of equality, shared decision making, equal opportunity, power sharing and personal responsibility are basic to full cooperation. The skills of group facilitation grew out of cooperative movements around the world and are based on ensuring that everyone in a group can, if they wish, fully participate in all decisions that affect them (4-5).

Facilitation should be based on three values, i.e., valid information, free and informed choice, and internal commitment to those choices. Firstly, valid information means that
people share all information relevant to an issue, using specific examples so that other people can determine independently whether the information is true. Secondly, free and informed choice means that people can define their own objectives and the methods for achieving them and that their choices are based on valid information. When people make free choices, they are not coerced or manipulated. Consequently, facilitators do not change peoples’ behavior. Facilitators provide information that enables people to decide whether to change their behavior. If they decide to change their behavior, the facilitator helps them learn how to change. Thirdly, internal commitment to the choice means that people feel personally responsible for the decisions they make. Each person is committed to the decision because it is intrinsically compelling or satisfying. (Schwarz 8-13)

Schwarz further explains that these three core values create a reinforcing cycle. People require valid information to make an informed choice. When people make free and informed choices, they become internally committed to the choices. When people are internally committed to their decisions, they take responsibility for seeing that the decisions are implemented effectively. Finally, people who value valid information continually seek new information to determine whether their decisions remain sound or should be changed. Essentially, the facilitator’s role is to help the group improve its process in a manner consistent with the core values. (13-14). To put in a simple term, a facilitator functions in a number of different modes: enabler of change, respectful communicator, developer of people and teams, master of problem-solving tools, and manager of conflict (Ray 22).
C. Information Literacy

In accordance with American Library Association (ALA), information literacy is a set of abilities requiring individuals to “recognize when information is needed and [to] have the ability to locate, evaluate, and use effectively the needed information”(2). Information literacy also is increasingly important in the contemporary environment of rapid technological change and proliferating information resources. Because of the escalating complexity of this environment, individuals are faced with diverse, abundant information choices – in their academic studies, in the workplace, and in their personal lives. Information is available through libraries, community resources, special interest organizations, media and the Internet – and increasingly, information comes to individuals in unfiltered formats, raising questions about its authenticity, validity, and reliability. In addition, information is available through multiple media, including graphical, aural, and textual, and these pose new challenges for individuals in evaluating and understanding it. The uncertain quality and expanding quantity of information pose large challenges for society. The sheer abundance of information will not in itself create a more informed workforce without a complementary cluster of abilities necessary to use information effectively. (American Library Association 2-3)

Information literacy forms the basis for lifelong learning. It is common to all disciplines, to all learning environments, and to all levels of education. It enables learners to master content and to extend their investigations, become more self-directed, and assume greater control over their own learning. An information literate individual is able to determine the extent of information needed, can get access to the needed information,
evaluate information and its sources critically, incorporate selected information into one’s knowledge base, use information effectively to accomplish his/her purpose with good understanding of its legal and social implications.

Information literacy is related to information technology skills, but has broader implication for the individual, the organizational system and the society. Information technology skills enable an individual to use computers, software applications, databases and other technologies to achieve a wide variety of academic, work-related, and personal goals. Information literacy, while showing significant overlap with information technology skills, is a distinct and broader area of competence. Increasingly, information technology skills are interwoven with, and support information literacy. As elaborated in the 2000 report of the Board of Directors of the Association of College and Research Libraries, while information technology competency focuses on a deep understanding of technology and the use of it, information literacy focuses on content, communication, analysis, information searching, and evaluation (8).

Developing lifelong learning abilities is central to the mission of the integrated modular training program developed out of this study. As expressed by Ordonez, “Half of what students learn today will be obsolete in the next five years or so, and half of what students need to know to succeed in the future has not even been invented or developed yet” (45). To actualize a gracious life in this changing world, learners (young and old alike) need an educational system that empowered them for lifelong learning or enables them to be competent in learning how to learn anywhere even when they are left to themselves. To ensure that individuals have the intellectual abilities of reasoning and critical thinking, and to
help them construct a framework for learning how to learn, an organization must find an alternative approach to the problem of “so much to learn and so little time in which to learn” (McNeil 22).

Information literacy is a key component of, and contributor to, lifelong learning. Information literacy competency extends learning beyond formal classroom settings and provides practice with self-directed investigations as individuals move into professional positions and responsibilities in all arenas of life. Because information literacy augments learners’ competency with evaluating, managing, and using information, it is now considered by various academic and training institutions as the essential foundation for other learning areas.

Related literature on Information Literacy in the last five years included the final report on Information Literacy by the American Library Association in 1989 which defined four components of information literacy: the ability to recognize when information is needed and to locate, evaluate, and use effectively the needed information (12). The Information Literacy Competency Standards for Higher Education as approved by the Board of Directors of the Association of College and Research Libraries (ACRL) composed of five standards and twenty-two performance indicators. (16-66)

D. Innovation and Proactivity

Today, the vast majority of organizations do not pay their people to innovate. In fact, they do not even expect them to think! As cited by Tucker (4), nearly two thirds of 641 managers and hourly workers surveyed by consultant Kepner-Tregoe of Princeton, New
Jersey, said their companies do not use even half their brainpower. More than 70 percent compared their organizations to a "slow moving truck" blaming the condition on a failure to involve employees in decisions and a lack of training or rewards. Many jobs have actually been designed to eliminate the thinking component altogether, and not just entry level jobs either.

Despite the growing recognition that innovation is the only sustainable source of growth, competitive advantage, and new wealth, as again, cited by Tucker, an Arthur D. Little survey of 669 global company executives found fewer than 25 percent of the companies believe innovation performance is where it needs to be if they are to be successful in the competitive marketplace. Having tried an endless array of alternatives, company leaders are now accepting enterprise-wide innovation as a key operational discipline, just as in the past they adopted the disciplines of quality, planning, and management. (1)

Of course, innovation is not a new discipline in most organizations. But the old ways, even those that may have worked in the '80s and '90s, are no longer adequate. Firms across the board are engaged in exciting experiments to re-invent the way they create the future, because "business as usual" has not produced the desired results. Tucker emphasizes that for a modern organization to maintain its competitive advantage, it should embrace four essential principles of managing innovation in the new century: first, a company’s approach to innovation must be comprehensive; second, innovation must include an organized, systematic, and continual search for new opportunities; third, organizations must involve everyone in the innovation process; and forth, a company must work constantly on improving its climate for innovation (2-6).
Tucker further elaborates that:

The only thing that separates you from your competitors are the skills, knowledge, commitment, and innovative abilities of your people. To win the competitive game, every company must strive to provide customers with a value proposition that is noticeably superior to the one you offered yesterday. To win, companies must respond to newly emerging customer needs with well designed products and services and business models that anticipate these needs. They must employ new technologies that reduce their cost of doing business, and allow for greater speed and customization. (2)

Therefore, innovation cannot be confined to one or two departments or farmed out to an elite group or star performers. Instead, it must permeate the entire organization, and it must encompass new products, new services, new processes, new strategies, new business models, and the pursuit of new market. It must be comprehensive and involve all staff. In the innovation economy, this dormant creativity must be tapped. Unleashing people's ability to solve problems and create opportunities becomes paramount to survival. Teaching people how to "work the system" in an organization, and to champion their ideas toward implemented solutions is quickly becoming the real work of forward-looking training departments. (Tucker 4)

Innovation involves thinking skills and proactive attitude. de Bono strongly believes that thinking is a skill and he calls the skill of thinking “operacy”. He suggests that operacy should be included alongside literacy and numeracy as good thinking is essential for problem solving, decision making, constructive thinking, critical thinking and for coping with change,
all of which are essential for survival and for success in today’s world. It is important, he maintains, for operacy to be included in education, as he states: “In the real world there are people to deal with, decisions to be made, strategies to be designed and monitored, plans to be made and implemented. There is conflict, bargaining, negotiating and deal making. All this requires a great deal of thinking and a great deal of operacy…”(11)

**E. Cultural Competency**

The idea of more effective cross-cultural capabilities is captured in many terms similar to cultural competence. Cultural knowledge, cultural awareness, and cultural sensitivity all convey the idea of improving cross-cultural capacity. However, cultural competence, as defined by Kim, Sim, and Osher, is a set of congruent behaviours, attitudes, and policies that come together in a system, agency, or among professionals and enables that system, agency, or those professionals to work effectively in cross-cultural situations. Operationally defined, cultural competence is the integration and transformation of knowledge about individuals and groups of people into specific standards, policies, practices, and attitudes used in appropriate cultural settings to increase the quality of services. Cultural competency emphasizes the idea of effectively operating in different cultural contexts. Knowledge, sensitivity, and awareness do not include this concept. In simple words, being culturally competent means having the capacity to function effectively in other cultural contexts. The concept of cultural competency is based on the assumptions that we all represent a culture and that we have the capacity to adapt services in order to work toward cultural competency. (1-2)
At an individual level, Clairmont (2-3) states, a person can work to achieve cultural competence through a) awareness and acceptance of the wide range of cultural diversity (Be aware of differences in values, communication styles, spirituality, definitions of family and be accepting of those differences.); b) awareness of one's own cultural values and identity (Understanding how cultural conditioning influences our beliefs about human behavior, values, communication, biases, etc.); c) understanding how differences may impact the client/counselor relationship (Realizing that those differences can either help or hinder the way in which services are provided); d) knowledge of client's culture,(Taking the time to learn as much as possible about the culture of those who could potentially utilize program services.); and e) utilizing this information to begin to adapt services and skills.

At an organizational level, King, Sim, and Osher, point out that there are five essential elements that contribute to a system’s ability to become more culturally competent. The system should a) value diversity, b) have the capacity for cultural self-assessment, c) be conscious of the "dynamics" inherent when cultures interact, d) institutionalize cultural knowledge, and e) develop adaptations to service delivery reflecting an understanding of diversity between and within cultures. Further, these five elements must be manifested in every level of the service delivery system. They should be reflected in attitudes, structures, policies, and services. (3-11)

In short, multicultural competencies include ability to adapt to change, handle conflict, deal with complexity and learn sensitivity to other people and their cultures.
F. Team Skills

Innovative person must have team skills. These skills are beyond the boundary of traditional “team spirits”. James Harrington in his article “It’s Time to Stop Building Teams and Start Developing Teamwork” describes how teamwork operates in highly effective organization:

Although teams are very necessary for low performing organizations and organizations that have problems with management trust, they are much less effective when the organization is well managed. In these organizations, trust runs high and people are empowered to make decisions on their own. These organizations focus on promoting teamwork between individuals. Teamwork can be pictured as a series of boxes connected together by outputs much like a process. Each individual knows what the interface person needs and adjusts his or her work to fulfill these needs. It is an attitude of how can I help, what can I do to make your job easier, how can we work together to produce more value for the total organization. (2)

The organization with a favorable climate for innovation is one that provides the context for people to collaborate in groups, teams, divisions, and departments without boundaries or fear. And since innovation is really a process of problem-solving, this informal networking cannot be limited only to internal sources. As cited by Tucker (5), a team of researchers at Rensselaer Polytechnic Institute (RPI) in Troy, N.Y., conducted extensive field interviews with the teams involved in such breakthrough projects as GE's digital X-ray, Texas Instrument's digital light projector, GM's hybrid vehicle, IBM's silicon-germanium
devices, and DuPont's biodegradable polymer. The research found that informal networks were critical in all 11 of the breakthrough projects. The networks were not confined to the R&D community, but operated between R&D and the business units, and between R&D and outside constituents: customers, suppliers and governmental agencies. These contacts helped give early validation to the idea's potential and generate political and financial support. They also helped to provide access to scarce resources, friendly customers, and government funding.

With modern communication and information technologies, forming a team is no longer limited to being together at the same place at the same time. In 2002, Majchrzak, Malhotra, Stamps and Lipnack (131-32) conducted a benchmarking study of successful virtual teams entitled “Learning the Secrets of Far-Flung Teams.” Some of the nominees were global, others regional. Half had members from more than one company. Half were long-term, and half had been set up just for a single project. The study demonstrated that when a project requires a diversity of competencies and perspectives and the work can be done by means of electronic documents and tools, its better to opt for a far-flung team than for one that works face-to-face. Such teams not only have a wider variety of communication channels at their command but also are free from many of the psychological and practical obstacles to full and effective participation that hobble traditional team settings in the past. The study also showed that virtual meetings stimulated members to contribute more, articulate their views more precisely, and make decisions continually.

The value of virtual teams derived from members’ ability to be in two places at once. Remaining tightly linked to their local organizations allowed them to keep their teammates’
current on developments there. The far-flung virtual teams establish a sense of connectedness and immediacy differently from the way traditional teams do. The virtual solution blurs the distinction between time spent away from them through the use of always open, online team rooms and ensures that the meetings that do occur really count.

To form a successful virtual team, Majchrzak, Malhotra, Stamps and Lipnack set out three principles. The first one called “Exploit Diversity” (132). It deals with how the team should be composed. The second principle, “Use Technology to Simulate Reality” (134), deals with how the team members use technology to coordinate their efforts. The last principle, “Hold the Team Together” (136), deals with how team leaders induce a collection of strangers with little in common to function as a mutually supportive group.

The above principles illustrate that though skills and behavior required for the virtual team’s members might be far more complicated than the traditional counterparts, the same ground rules still applied. To develop team skills, according to John Syer and Christopher Connolly (2-3), one has to first recognize the four basic influential factors in teamwork. One, people work in teams because together they have the potential to create something they cannot create alone. By maximizing the quality of the relationship between team members, teams maximize their performance. Two, a team is a complex system. Team systems are not machines and when they stop growing or evolving, they begin to stagnate and die. Three, people also have an innate need to contribute. They want their community to grow and thrive. Without the ability to contribute, people slowly lose touch with their essence and become as artificial as those genetically modified tomatoes which are perfectly round, unbruised and uniformly red but have skins like leather and taste like cardboard. Four, teams
evolve and their nature cannot be categorized. The best teams manage their own relationships and processes. They have leaders, roles, goals, and measures but they continually re-invent themselves.

**RELATED STUDIES**

In recent times, interest in and need for a competency-based approach to education have intensified – an outcome of public outcry against the failing educational system in general, and the dissatisfaction experienced by practitioners from the inadequacy of a discipline-based approach in providing solutions to dynamic problems posed in the society. Today, the subject-focused curriculum is a target of criticism, in failing to provide learners with desirable intellectual skills needed for a competitive society. It is believed that the world is increasingly acquiring a global and interdependent outlook. Associated with this is the belief that problems in today’s world can be solved only by whole persons, not those who are anything more than a technologist, artist or pure scientist. Some of the researches and studies on core competencies and curriculum integration are briefly discussed below.

**A. Integrated Curriculum**

As elaborated by Relan and Kimpson (1-12) there are a number of characteristics of competency-based programs, e.g., competencies are carefully selected, supporting theory is integrated with skill practice and essential knowledge is learned to support the performance of skills, and above all, various implicit competencies (team skills, thinking skills, cultural
sensitivity, and problem solving, etc.) are integrated across the curriculum. In recent times curriculum integration has assumed an inclusive interpretation, which extends beyond a combination of disciplines. Thus included in this interpretation are the integration of across-the-domain skills such as thinking, reasoning, and problem-solving capabilities, the teaching of learning strategies, and the addition of topics and subjects in the curriculum, which have not been structurally recognized as unique disciplines, e.g. drug, nutrition, and career education.

Achieving core competencies requires an understanding that this cluster of abilities is not extraneous to the curriculum but is woven into the curriculum’s content, structure, and sequence. This curricular integration also affords many possibilities for furthering the influence and impact of such student-centered teaching methods as problem-based learning, evidence-based learning, and inquiry learning. To take fullest advantage of problem-based learning, learners must often use thinking skills requiring them to become skilled users of information sources in many locations and formats, thereby increasing their responsibility for their own learning. (American Library Association 8)

As cited by Shoemaker (39-41), Ackerman and Perkins did a study in 1989 on integrating thinking and learning skills across the curriculum. It consists of a “futuristic alternative concept,” in which curriculum throughout the grades has two levels; the curriculum, and the metacurriculum. The curriculum consists of substantive content and concepts, whereas the metacurriculum consists of learning skills and strategies which help learners acquire content being taught in classes, and develop the capacity to think and learn independently. It is integrated with the curriculum, so that skills of learning are scheduled
and explicitly taught within the context of the content being taught. It is also integrated across subjects. Thinking skills should be integrated across the curriculum on a day-to-day basis, and can be implicitly or explicitly taught, loosely or closely coupled with the content area, before and during the teaching of content areas. Skills and content can be doubly integrated: both within a subject and across the curriculum.

As mentioned earlier, most of the education and training provided to the riparian officials in the past are technical in nature and did not involve building up the performance skills which are required to produce results. This is understandable given the history of Mekong exploration works which mostly involved highly technical works like dam construction, hydropower generating system, and inter basin water diversion, which depend largely on foreign experts.

B. Core Competencies for UN Personnel

In "Building the Effective United Nations Organization", Mr. Kofi Annan, the Secretary General of the UN has indicated that the international organization’s greatest strength and the key to UN success is the quality of her staff and managers. He stressed that, to effectively face the challenges in 21st century, the UN needs to create an organizational culture and environment that enable staff to contribute to their maximum potential. The UN system has categorized core competencies of its human resources into core values (Integrity, Professionalism, and Respect for Diversity), basic competencies (Communication, Teamwork, Planning & Organizing, Accountability, Creativity, Client Orientation, Commitment to Continuous Learning, and Technological Awareness), and managerial
competencies (Vision, Leadership, Empowering Others, Building Trust, Managing Performance, and Judgement/Decision-making) (UN 1-12).

The researcher finds that the UN core competencies and their behavioral indicators are useful references when formulating basic competencies for a river basin organization. However, because of their generality, some of the skills mentioned in the UN competencies may not apply to a regional and national organization. On the other hand, some critical skills which are essential to the river basin works are not included in the UN study.

C. Competency Development Model of Jacobs Management Center

In 2001, Jacobs Management Center of the Buffalo School of Management, Buffalo, NY developed the “Competency Development Model” as part of Career Pathing component in the Results Oriented Career System (ROCS). The study attempted to illustrate that, regardless of job category/family, an employee of an organization in this information era must have the following competencies as foundation: Communication, Problem Solving, Leadership & Empowerment, Planning and Organizing, Team Skills, Sensitivity, Outcome Focus, Proactivity, Dealing with Ambiguity and Change, and Integrity and Ethics.

While the majority of the basic competencies mentioned in the ROCS can be applied to every organization, each organization also has its own goals, values, and norms which require different set of performance standard and behaviors. “One size does not fit all.”
D. Knowledge Management at Microsoft

Davenport (1-6) used Microsoft as a case study on Knowledge Management. He cited that one of the competitive advantages of Microsoft Corporation has been the quality of its people. Unlike many firms, Microsoft does not tolerate “legacy people” whose skills have become obsolete. Therefore, the corporation has focused heavily on the issue of identifying and maintaining knowledge competencies. In 1997, Chris Gibbon, the IT Director of Microsoft contracted Susan Conway to implement a pilot competency-based HRD project called Skills Planning “und” Development (SPUD). The SPUD is focused not on entry level competencies, but rather on those needed and acquired to stay on the leading edge of the workplace. The SPUD goal is to use the competency model to transfer and build knowledge, not merely to test it. When Microsoft employees have a better idea of what competencies are required of them, they will be better consumers of educational offerings within and outside the company. Using similar competency-based training process, the SPUD implemented the program in five major components: a) developing a structure of competency types and levels; b) defining the competencies required for particular jobs; c) rating the performance of individual employees in particular jobs based on the competencies; d) implementing the knowledge competencies in an online system; and e) linking the competency model to learning offerings.

Though the list of Microsoft core competencies and skills levels are very business oriented, the researcher found that many indicators and benchmarks set in SPUD can also apply to personnel of an international organization like the MRC, especially in the areas of information analysis, knowledge management and lifelong learning.
E. Developing Competency-based Curricula

In early 2002, the Competencies and Curriculum Workgroup of Public Health Department of Georgia State, USA developed the “Competency-to-Curriculum Tool Kit” as an aid to assuring that the workforce, key to public health infrastructure, is truly competent to perform essential public health services in all areas of public health practice. This discussion draft is being issued to re-start the dialogue on how best to assure that all public health workers have access to training opportunities that are competency based, related to essential public health services, and developed from sound educational principles. The target audience include those responsible for staff development in public health agencies, those considering curriculum changes in public health education programs, and individual public health workers interested in life-long learning (Gebbie, 2, 6).

The work group further categorized the core competencies into eight large sets by the type/area of knowledge or skill involved: Analytic Assessment Skills, Basic Public Health Sciences Skills, Cultural Competency Skills, Communication Skills, Community Dimensions of Practice Skills, Financial Planning and Management Skills, Leadership and Systems Thinking Skills, Policy Development/Program Planning Skills (Gebbie 15).

F. Utilizing the Delphi Method in Core Competencies Development

According to Kristin Gebbie, Chairperson of the Competencies &Curriculum Workgroup, US Public Health Department, competency sets may be developed under at least three circumstances: to define clearly the competencies displayed by practitioners already functioning well in an area of public health practice; to specify competencies in a newly
identified or emerging area of practice; or to update competencies as the practice field evolves over time. For the new emerging areas of practice (like managing river basin organizations), Gebbie recommends that the Delphi method is the most appropriate one. As further described by Linstone (6-25), the Delphi method is the process of combining individual expert opinion into group consensus, and is typically used to study topic areas where there is a lack of adequately documented knowledge. It is a structured process for collecting and distilling knowledge from a group of experts by means of a series of questionnaires interspersed with controlled opinion feedback. This method is specifically designed for use with geographically dispersed panels of experts. As an alternative, panels of experts may be assembled for face-to-face dialogue to draft candidate competency sets for further review by a wider circle of interested practitioners.

After having conducted a secondary research on related literature and studies on the competency-based training (CBT), this researcher found that CBT models and approaches are mostly used for improving technical skills, knowledge, or abilities of the trainees. Little has been done in regard to the development and measurement of implicit competencies like cultural competency, team skills, change management and proactivity. The identification of basic functional and performance competencies for a river basin organization are therefore essential to the development of “Integrated Modular Training Program” which takes into considerations of both “what” the organization is supposed to accomplish (Mission, goals and performance expectations) and “how” the organization goes about accomplishing them (organization culture, norms, and values).
CHAPTER III

THEORETICAL FRAMEWORK

Organizations are living organisms characterized by their processes, not their structures. The flawed assumption of many thinkers is that, through building a structure, through fixing a procedure and through mechanizing a process, a viable organization will emerge. This does not happen and such a spurious platform has perpetuated the fundamental mistake of considering people as things to be measured, fixed overheads in the budget, objects to be re-engineered to fit into the re-engineered organization. This study challenges the relic of the days of “scientific management.” This researcher believes that individual competencies intersect with organizational performance standards and organizational capacities. Because organizations do not have capacity and cannot optimally perform if workers are not appropriately trained. It is the competent workforce that makes the difference. High-performance organizations integrate HRD with strategy to ensure that employees are competent and motivated to work towards organization’s objectives.

Theories and approaches considered in this study include the learner-centered philosophy, the competency-based education and normative system approach.
A. Learner-centered Philosophy

As described by John Brubacher in his book, *Modern Philosophies of Education*
“Until the appearance of ‘progressive education’ in the early part of the twentieth century, educational philosophy was more or less moribund. The innovations of progressive education, however, made so strong a protest against the conventional wisdom inherited from the nineteenth century that educators were forced to resort to philosophy to decide whether to join the progressives or to remain with the traditionalists and essentialists” (329-30). While the educators of the traditional school view the world in a static form and education as the transformation of belief, doctrine, language and way of lives from one generation to another, the learner-centered school of thought views the surroundings in progressive form and education is the social process, growth and development. While the traditional education has subjects as the center and teachers as the transmitter, the modern education has the learner as the center and the school as the social institution.

Unlike traditional educational belief that learner comes to school with a “vacant” sign hung on his mind (John Locke), the researcher believes that human nature is fundamentally dynamic. The dynamic, growing, self-activating principle, which animates human nature and causes the human pattern to develop to maturity, has traditionally been known as the soul which processes a number of faculties. A faculty, as its derivation from Latin facultas implies, is “ability to do.” The soul manifest two main kinds of faculties or abilities, the bodily and the mental. Through its bodily or somatic faculties the soul is able to sense, feel and desire. Through it’s mental or rational faculties the soul is able to remember, imagine, reason and the like.
Central in this superb equipment is the human cerebrum. By virtue of it man can be matched by no other animal in flexibility and range of adaptation. Not all men, however, have the same range and flexibility of adaptation. Contrast to the general opinion of psychologist, the researcher believes that man can raise his intelligence quotient (IQ) by improving his mental capacity. Once he can master his body and mind, he can increase his capacity to learn, modify and adapt. Therefore, using the constancy of the IQ as the basis principle of determining educational opportunities for men is wrong and unjust. Those traditional educators who want to justify their oppression over others believe that the individuals with higher IQs due to their superior abilities rise to the top of the social ladder, while those with lower IQs due to their more modest capacities settle to the bottom. This is like using this logic to award superior educational opportunities to a dominant race and discriminate against an inferior one because the advanced culture of the dominant race is evidence of their superior native inventiveness and originality. This constancy of the IQ is predicated on an unproved assumption.

The researcher believes that human nature can be changed by education and through it bring about fundamental changes in the social order itself. The aims of education must be progressively undergoing reconstruction all the time. I think, therefore I am and I choose, therefore I am.
B. Competency-based Education

The emerging global micro-economic reform agenda and the search for structural efficiency in industry as a result of globalization have resulted in the introduction of competency-based systems. The goal is to identify and implement a new way of harnessing, developing, and using the skills of its workforce.

In the past, employers described the attributes necessary to undertake a particular job successfully in terms of attitudes, skills, knowledge without reference to a standard of performance. It has long been known, however, that just the possession of knowledge, a particular skill or the “right” attitude does not guarantee competent performance. Performance is the most dynamic concept of how these three components are utilized and integrated in the workplace. The term competency, therefore, refers to this more dynamic concept… shifting the focus from what people “have” to what they can “do.” Demonstration (doing it) and assessability (measuring it) are key attributes of the competency concept.

The competency-based process utilizes a competency framework to align the strategic objectives of an organization with its human resource (HR) business process. Often, companies go to great lengths to behaviorally define the five to ten competencies they want all employees to demonstrate as they do their jobs. By applying a systematic approach of developing core competencies the organization is successful in aligning performance with its strategic goals, develop competencies to support and enable performance, link individual competency gaps to training and development, and implement its competency-based HR processes (Alter and Lowry 1).
There are similarities between the competency-based training (CBT) module and the service-learning (SL) process. This module-based learning strategy anchors on the holistic approach and futuristic alternative concept where each module will be carried out as follows:

**Learn to do.** Each training module will start with the participatory training sessions where concerned trainees are trained on the concepts, techniques and tools to be employed to accomplish the real tasks as planned in the organization workplan. At this cognitive stage, learner-centered instruction applied where the trainer is a leader of a community of learners, divising ways to promote inquiry, higher order thinking, problem solving, higher levels of literacy and engagement. This is a conceptualizing stage which requires the trainer to process and draw on a rich knowledge base of content, methods appropriate to the content, and technology appropriate to the content.

**Do to learn.** Like service learning, this competency-based module has been classified as a form of work-based learning. Immediately after the new skills/knowledge have been acquired, the trainees will then carry out their corresponding assignments, e.g. carrying out national sector review, sub-area studies, transboundary meeting, or public forum. During this implementation stage, the working group members are required to consult with the assigned trainer/mentor regularly to ensure that the work is carried out as planned and in accordance with the agreed process. This application or “doing” (psychomotor) enables the learner to apply the ideas and concepts expressed in cognitive objectives.

**Share to Learn.** After the assignment is completed, there will be a synthesis and evaluation workshop where each individual/group will have a chance to present their outputs and share the learning/working experience with others. The presentation will be the actual
products as listed in the milestones, e.g. the report on Public Participation Process in Kong 2 river basin. Lessons learned and practical experiences from the actual applications will be shared and innovative knowledge and skill will emerge and be institutionalized. These affective objectives enable the learner to examine his/her own perceptions, beliefs, and attitudes about issues and approaches affecting policies and practices. The learner clarifies his/her own values by determining probable effects on his own practices and on the larger society. The achievement of this objective is critical to the development of appropriate knowledge and skills in a particular subject area.

Like the service learning process, this synthesis and evaluation process is a very critical stage that distinguishes the competency-based training module from traditional education. Frequent reflection gives trainees the chance to discuss their experiences, explore their perspectives in relation to their “learn to do” process, and better understand their relationship with different units of the organization.

C. Normative System Approach

The influence of organizational culture in the performance of individuals has also been emphasized in various studies. Organizational culture is the specific collection of values and norms that are shared by people and groups in an organization. It controls the way they interact with each other and with stakeholders outside the organization. Organizational values, on the other hand, are beliefs and ideas about what kinds of goals members of an organization should pursue and about the appropriate kinds or standards of behavior
organizational members should use to achieve these goals. As cited by Allen (181), Jack Welch of General Electric is a CEO who is famous for the set of organizational values that he emphasizes, which include entrepreneurship and ownership, honesty, frankness, and open communication.

Understanding your organization culture is important. As emphasized by Owen: “The culture of the organization in which ones work exerts great influence on our thinking and our behavior. Often greater, indeed, than the power of official policies, programs, rules, and regulations. . . .” (xi). The important of the culture is also emphasized in the article “Confronting the Shadow Organization . . .” of Allen and Pilnick:

When you understand your current culture, you can create a vision for how you want your culture to be, and understand the specifics of what you will need to change to get there. By using competencies to help define your current and ideal culture, you have a road map of how to hire and develop employees to live your vision. You can come up with specific behaviours that will reinforce or change the culture to be what you want it to be. (181)

From organizational values, develop organizational norms, guidelines or expectations that prescribe appropriate kinds of behavior by employees in particular situations and control the behavior of organizational members toward one another. As cited by Kreitner and Kinicki (11), the norms of behavior for software programmers at Microsoft, for example, include working long hours and weekends, wearing whatever clothing is comfortable (but never a suit and tie), consuming junk food, and communicating with other employees via electronic mail and the company’s state-of-the-art intranet. Robert Allen, the president of
Human Resources Institute of Morristown, New Jersey has studied group norms and their influence on human resource development. He emphasized that the effect of group norms needs to be taken into the design and implementation of training efforts intended to improve organizational performance. These norms, often elusive and unrecognized, have tremendous power. They can aid and abet or drastically undermine, the work of the professional trainer. He recommended the “Normative Systems” Approach which stresses the key influence of norms on personal and organizational effectiveness. It seeks to increase people’s understanding of the influence of culture upon their lives and helps them to devise ways of making certain that the cultures they are part of reflect their highest goals and aspirations. (32-38)

Robert Owen discusses the restructuring of roles and relationships between people at work in academic settings. He called the influence of the organizational culture as the true bearer of authority.

Like all workplaces, an educational organization – each school and each university – is characterized by a distinctive ‘organizational culture’. By organizational culture is meant the norms that inform people what is acceptable and what is not, the dominant values that the organization cherishes above others, the basic assumptions and beliefs that are shared by members of the organization, the rules of the game that must be observed if one is to get along and be accepted as a member, the philosophy that guides the organization in dealing with its employees and its clients. . . . (26)
FIGURE 1. THEORETICAL FRAMEWORK

VISION

MISSION

CULTURE OF COMPETENCE IN THE WORKFORCE

LEARNER-CENTERED PHILOSOPHY
Progressive, Social process, Growth & Development

COMPETENCY-BASED EDUCATION
Demonstration & Assessability

NORMATIVE SYSTEM APPROACH
Norms, Values, Beliefs, Philosophy
The relationship between the learner-centered philosophy, competency-based education model and normative system approach and their influence over the culture of competence in the workforce of a learning organization is shown in Figure 1. To build culture of competence in the workforce, the development program should be based on three foundations. First, it should be based on progressive education which believes that human nature is fundamentally dynamic, growing and self-activating. By virtue of it a person can raise his intelligence quotient by improving his mental capacity through education. The aim of education must, therefore, be progressively undergoing reconstruction all the time. I think, therefore I am and I choose, therefore I am. Second, competency-based systems should be implemented across all HRD programs – shifting the focus from what people “have” to what they can “do.” Third, normative system approach should be applied throughout the development intervention. This approach stresses the key influence of norms on personal and organizational effectiveness. It seeks to increase people’s understanding of the influence of culture upon their lives and helps them to devise ways of making certain that the cultures they are part of reflect their highest goals and aspiration. When a learner understand his/her organization culture and implicit norms, he/she then can create a roadmap to guide him/her to get there.
FIGURE 2. CONCEPTUAL FRAMEWORK

Mission, Vision, Goals
Policy Framework, Cultures, Values, Operating Structure
External Env. Globalization, Technology,
Internal Env. e.g. HR system, performance management

Communication, Facilitation, Team Skills, Cultural Competency,

Round I: Ask the experts
Riparian Officials (Khmer, Laos, Thai, Vietnamese)
External Regional and Nationals Experts

Various inputs are integrated and refined by the researcher To become draft Core Competencies, Behavioral Indicators and Learning Objectives

Round II: Refine and suggest how to go about it
In-depth interview of member of river basin organizations
In-depth interview of Selected Experts

Internal Views
External views
Differences & Relationship

Final Deliberations on Competencies & training

Round III: Melting Pot

OUTPUTS OF THE STUDY: 1. Agreed sets of core competencies
2. Integrated River Basin Modular Training Program
Conceptual Framework

The concepts gathered from the background of this study, the theoretical framework, and the research methodology are used as bases for evolving a conceptual framework. This is represented in a diagram as shown in Figure 2.

Since the required human resource capacity should derive from the organization core competencies. This conceptual model commences by conceptualizing a river basin organization core businesses. This is done by reviewing of related literature, studies, and conducting secondary research on the MRC vision, mission, goals, organizational culture, and its operating system. In formulating indicative sets of core competencies required for the organization human resources, one have to also consider internal and external factors which influence the organization direction and operating system. The results of this pre-investigation stage are six sets of provisional core competencies to be used as a springboard for this Delphi study.

This conceptual model follows the Delphi study method which is the process of combining individual expert opinion into group consensus. It is a structural process for collecting and distilling knowledge from two groups of experts, those who directly effected by the study and those who have expertise in the study areas. It is done by means of a questionnaire combining with in-depth interviews and controlled opinion feedback. In round one of the study, each panel member is asked to give his/her opinion on the extent of importance of each of the proposed competencies and add his/her own judgement, opinion and recommendation. The purpose of this first round “Ask the experts” is to get inputs from the experts on what knowledge, skills and abilities are fundamental to the performance of
riparian officials. The inputs of the first round are then tabulated, analyzed, integrated and refined and then used as the basic information in formulating guided questions for in-depth interview sessions which are the main activities of round two. The objective of round two “Refine and suggest how to go about it” is to obtain detailed information about required competencies, to discuss differences and relationship between the perceptions of riparian officials and external respondents and how to best bridge those differences. At this stage, working style and learning culture of target population are also analyzed and considered in refining sets of core competencies, behavioral indicators and learning objectives. These information, ideas and suggestions are vital to the development of a training program which directly aim to improve the performance of the riparian officials.

Since these competencies are interrelated and interdependent, it is very possible that some learning objectives will address the identified skills, knowledge, and abilities of more than one competency. Likewise, some knowledge and skills are cutting across competencies which have to be integrated into core modules using “futuristic alternative concept” of curriculum development. After integrating the second round of comments and suggestions, the final draft competency package together with indicative training modules are then sent to the members of both panels for final deliberation. At this final stage, each panel member will be asked to make recommendations based on their field of expertise and make final comments if the modified sets of competencies are agreeable. All comments and suggestions from diversify areas of expertise will then be analyzed and used to improve the findings. The final product of this study is the agreed sets of core competencies with agreed corresponding performance indicators.
CHAPTER IV

METHODOLOGY

A. The Method

Core competency analysis is an analysis of the collective know-how of the organization that may give it a competitive advantage. This know-how is a result of learning that is characterized by the organization strategy and could be built through a process of continuous improvement and enhancement that may span a decade longer. By analyzing these core competencies, one can possibly accelerate improvement to meet with the demand of this fast changing and dynamic era.

Core competency analysis is a very detailed and analytical process. It transcends functional groups and involves breadth as well as depth of knowledge. Because the language of competency-based practice and competency-based training is relatively new, most of the emerging areas of practice in river basin management and cooperation have never been described in this manner. In this situation, the Delphi Method is considered the most appropriate, particularly in combining individual expert opinion into group consensus.
B. Research Environment

To accomplish the investigation, the study was carried out extensively in two of the four MRC member countries, i.e. Lao PDR and Thailand. Due to limited funding, for Cambodia and Vietnam, the study was limited to the administration of computerized questionnaire of round one and computerized interactive participation of the panel members during the round 3 deliberation. Institutions under the Mekong River Commission included in this observation were the Mekong River Commission Secretariat, the Cambodian National Mekong Committee, the Lao National Mekong Committee, the Thai National Mekong Committee, and the Vietnam National Mekong Committee. For Thailand, the research also covered five national River Basin Sub-committees within the Mekong Basin. Map of the Mekong River Basin is shown in Figure 3.
Figure 3: Map of the Mekong River Basin

The Mekong River Basin

Characteristics:

Area: 795,000 km$^2$ (21)
Length of mainstream: 4,800 km (12)
Average discharge: 15,000 m$^3$/s (8)

LEGEND
- International boundary
- Basin boundary
- River
- Upper Mekong Basin
- Lower Mekong Basin (MRC)
(n) Rank in the world
(%) Flow contribution

MRC Secretariat. 1999
The Mekong River Basin and Its People

Approximately 4,400 kilometers in length, the Mekong is one of the world’s longest rivers. The total population in its basin at present is believed to exceed 70 million. The Lower Mekong Basin, covered by the 1995 Agreement, is home to some 60 million peoples. The large majority of them earn their living from agriculture and fishing – occupations that account for 50 percent of the lower basin’s GDP. Population pressure is placing increasing stress on already low living standards and food security, thus exacerbating poverty. Significant investments are, therefore, needed in agriculture, rural development, education, and basic health to increase employment, combat poverty, and raise living standards. The Basin is economically diverse. Average incomes in Thailand are about ten times those in most of Indochina. However, northeastern Thailand is the country’s poorest region, while the Mekong Delta has above average incomes for Vietnam, and this greatly reduces actual income disparities within the Basin. As the former socialist economies move rapidly toward market-based development, there is both a convergence of economic development strategy and prospects for increased regional economic integration. Both place extra stresses on the resource base.

The capacity of riparian countries in managing the river basin resources varies. While Thailand and Vietnam appear as the two strong leaders, using advance technology to maximize the use of the basin resources, the management of the Mekong resources in Cambodia and Laos, as reported by AusAID, is best characterized by weak governments’ ability to implement an integrated approach. This is particularly so with regard to, poor
institutional capacity, coordination and support, lack of skilled staff, dependence on aid inflows and relatively uncertain political/security situation and poverty. (20)

**Organizational Profiles**

On the 5th of April 1995, Cambodia, Laos, Thailand and Vietnam, signed the “Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin”. This agreement formed the Mekong River Commission (MRC) which replaced the Committee for Coordination of Investigation of the Lower Mekong Basin (the Mekong Committee) and the Interim Mekong Committee, which were established in 1957 and 1978, respectively. The MRC also holds an official dialogue with the two other states of the Mekong River Basin, China and Mynmar, which are not signatories of the 1995 Agreement. MRC Work Programme (6)

Areas of cooperation include: a) Article 1 in the 1995 Agreement obliges the signatories “To cooperate in all fields of sustainable development, utilization, management and conservation of the water and related resources of the Mekong River Basin…”; b) Article 2 stipulates the promotion of sustainable development of the full potential and prevention of wasteful uses of the Mekong River Basins waters for the benefit of all riparian states; and c) Article 3 charges the signatories with protection of the environment, ecological balance and natural resources from harmful effects from the development of the basin’s water and related resources. These three articles set the scope for the work of the Commission (MRC Agreement 3).
The MRC enjoys the status of an international body. It has signed several agreements and holds obligations with the donors and the international community. The MRC consists of three permanent bodies; Council, Joint Committee and Secretariat. Acting as focal points for the Commission in each of the member countries are the National Mekong Committees (NMCs)

Figure 4: Operating structure of the MRC

Mekong River Commission Secretariat. The MRC Secretariat serves as the technical and administrative arms of the Commission. There are presently over 100 riparian officials and foreign experts working for the Secretariat to carryout the six basic mandates of the river basin organization: (a) organizing official meetings of the MRC Council, the MRC Joint Committee and Donor Consultative Meetings; (b) promoting information sharing among various countries and agencies; (c) developing a coordinated water resource development and management scheme; (d) securing assistance from donor countries and
development aid agencies; (e) facilitating resolution of conflicts among member states; and (f) coordinating the planning, development and utilization of basin resources.

**National Mekong Committees.** There are four National Mekong Committees (NMC’s) namely Cambodian National Mekong Committee (CNMC), Lao National Mekong Committee (LNMC), Thai National Mekong Committee (TNMC), and Vietnam National Mekong Committee (VNMC). While not specified under the 1995 Agreement, each member country continues to use their established National Mekong Committee as the country’s focal point for liaison and coordination with the MRC. Although the policy frameworks and structures of the four respective NMC’s vary somewhat, all have representation at a high political level, and members are appointed from most of the national Ministries involved with water and related resources in the Mekong River Basin. Each NMC is supported by a permanent Secretariat, which acts as a coordinator between MRCS and the national Ministries. The Ministries are the principal collectors of primary natural resources data and, in addition to their national development responsibilities, are implementers of basin-wide, or transboundary programs carried out under the MRC umbrella.

Organizational structure of the Mekong River Commission is shown in Figure 5.
Figure 5: MRC Organizational Structure
Figure 6. National Flags of the riparian countries

Figure 7. Logo of Mekong River Commission
Figure 8. Artistic expression of Mekong River Basin cultures and peoples
Description of the Population and Respondents

Table 1. Number of staff at the MRCS, NMCs (January 2003) and an indication of staff at national line agencies staff directly involved in MRC activities.
Source: MRC Integrated Training Programme (2003)

<table>
<thead>
<tr>
<th></th>
<th>MRCS</th>
<th>CNMC</th>
<th>LNMC</th>
<th>TNMC</th>
<th>VNMC</th>
<th>Primary group of Line Agencies</th>
<th>Second. Group of Line Agencies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive / director</td>
<td>5</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>20</td>
<td>10</td>
<td>51</td>
</tr>
<tr>
<td>Programme managers</td>
<td>9</td>
<td>3</td>
<td>7</td>
<td>5</td>
<td>4</td>
<td>40</td>
<td>20</td>
<td>88</td>
</tr>
<tr>
<td>Programme staff</td>
<td>51</td>
<td>10</td>
<td>13</td>
<td>11</td>
<td>7</td>
<td>100</td>
<td>50</td>
<td>242</td>
</tr>
<tr>
<td>Supporting staff</td>
<td>53</td>
<td>3</td>
<td>12</td>
<td>6</td>
<td>5</td>
<td>40</td>
<td>20</td>
<td>139</td>
</tr>
<tr>
<td>Total</td>
<td>118</td>
<td>23</td>
<td>35</td>
<td>24</td>
<td>20</td>
<td>200</td>
<td>100</td>
<td>520</td>
</tr>
</tbody>
</table>

The research population covers about 500 riparian officials working with MRC Secretariat and the four National Mekong Committees plus those from line ministries involved in the MRC programs (As shown in Table 1). Two kinds of respondents are essentials to this study: (a) internal experts, those who are or will be directly affected, and (b) the external experts, those who have an applicable specialty and relevant experience.

a. Internal experts. Fifty respondents were selected in consultation with MRC management (OIC of MRCS and Director Generals of NMCs). They are 25 MRCS professional staff of the four riparian nationalities and 25 national professional staff of CNMC, LNMC, VNMC, TNMC and line agencies.
b. External experts. The researcher personally invited twenty-five regional and national experts to participate in this research based on their expertise and applicable experience.

D. Research Design and Instruments

This Delphi method of research is designed to obtain and refine an interdisciplinary group of panelists’ judgments about core competencies (knowledge, skills, and abilities) that are considered vital to the successful performance of a member of an international river basin organization. The important objective of this research was to use the judgments of this regional and national experts as bases for developing a module-based learning program which can be used as prototype by all national and regional institutions involved in this regional development endeavor. The research is designed to use three research techniques i.e. questionnaire, in-depth interview, and virtual deliberation technique using intranet and internet facilities.

Figure 9. Logical sequence of Core Competencies formulation
The research was carried out in three progressive rounds as follows:

**Round 1**: Defining Core River Basin Competencies. The required competencies of MRC staff are a derivative of the functional elements of MRC, which in turn depends on MRC’s mission. This linkage of organization’s core competencies with its HR capacities is illustrated in Figure 6. Questionnaire is used for this first round. It is the list of six core competencies with corresponding performance indicators which are translated from the functional elements of MRC. First, the respondents were asked to express their judgement in regard to the extent of importance of each proposed competencies to the research population. Second, they were requested to list down other competencies and performance standards that they felt were important for the population but had not been included in the initial list. The questionnaire is constructed in a checklist form. This checklist form is then converted into a four-point rating scale so that the respondents can objectively estimate the extent or degree of importance required for each competency. The scale being used is ranged from 1 to 4 with 4 as the highest and 1 as the lowest.

**Round 2**: Based on the results of the first round, the researcher used guided questions to conduct in-depth interview of selected 45 respondents at different levels of the organization. The purpose of this in-depth interview process was to verify and validate the results of the first round by seeking agreement from the MRC stakeholders at three different levels i.e. regional, national and local levels. The guided questions helped the researcher to focus the interviews on roles and functions of a river basin organization, required human resource capacity at each operating level, expected performance indicators and core development strategies for achieving those indicators.
Round 3: The research interpreted the first round results and analyzed information and recommendations gathered from the second round and came up with a draft report on the findings. These preliminary findings were sent to all 75 panelists for further deliberation.

E. Administration of Questionnaire

Round 1: With permissions from the authorities of the five institutions, the researcher stationed at the headquarters of the Mekong River Commission which has been recently relocated to Vientiane, Lao PDR. The questionnaire and guided questions were first pre-tested with a group of Junior Riparian Professionals (JRPs) stationed at the headquarters. The JRPs are not members of the panel. Revisions and modifications were made to ensure that the questionnaire and guided questions served their purposes.

The questionnaire then was transmitted to the respondents via MRC intranet and internet as appropriate. The researcher personally followed up the completion of the questionnaire. Upon the return of all questionnaire forms, the researcher consolidated and tabulated the results. The raw data was then forwarded to the research statistician for treatments.

Round 2: The researcher personally interviewed 45 internal and external stakeholders at three levels. They are selected purposively as follows.

1. Regional level. This included the interview of ten MRCS staff and five regional experts.

   At MRCS, the researcher interviewed the new Chief Executive Officer, two Division Directors, three Program Managers and four senior professional staff.
2. National Level. The researcher interviewed ten officials of NMCs (five from TNMC and five from LNMC) and five national experts (four from Thailand and one from Laos).

3. Provincial Level. With the support of MRCS BDP Program and TNMC BDP Unit, the researcher was commissioned to interview twenty-five members of five Thai River Basin Sub-committees. These five national river basins situate in the Mekong River Basin. They are Kong 1 & Kok, Kong 2, Kong 3, Lower Chi and Lower Moon river basins. The composition of these respondents are:

3.1 Five local experts from provincial universities
3.2 Five government officials
3.3 Five NGOs
3.4 Five leaders of water users and river basin network
3.5 Five local administration officials

**Round 3:** The results of round one survey together with information gathered during the round two sessions were analyzed, integrated and repackaged by the researcher. These results together with the draft modular training curriculum were transmitted back to the two groups of experts for their final deliberations. By using intranet and internet facilities, the researcher was able to communicate to all experts at the same time and solicited their feedback and recommendations. The results of round three were then incorporated into the findings and recommendations presented in this study.
**F. Treatment of Data**

The proponent of this study makes use of the following formulas in presenting and analyzing the data: relative frequency distribution, weighted mean, and t-Test. Relative frequency distribution is used in presenting the profile of the respondents. The formula is as follows:

\[
\text{Part} \quad \% = \frac{\text{Whole}}{} \times 100
\]

Weighted mean is employed in order to portray the extent of importance of each of the identified competencies for riparian officials. This has also been used in determining the overall extent of perception of the respondents on all of the given competencies. The formula is as follows:

\[
\frac{f_x}{W_x} = \frac{x}{f}
\]

Where:

\[w_x = \text{Weighted Mean}\]

\[f_x = \text{Sum of all the products of } f \text{ and } x; \text{ where } f \text{ is the frequency of each option and } x \text{ is the weight of each option.}\]

\[f = \text{Sum of the subjects}\]

To quantify the data, the following guide were used to measure the extent of importance of each proposed core competency as perceived by panel of experts:
<table>
<thead>
<tr>
<th>Range</th>
<th>Weight</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.25-4.00</td>
<td>4</td>
<td>Critical</td>
</tr>
<tr>
<td>2.50-3.24</td>
<td>3</td>
<td>Very Important</td>
</tr>
<tr>
<td>1.75-2.49</td>
<td>2</td>
<td>Important</td>
</tr>
<tr>
<td>1.00-1.74</td>
<td>1</td>
<td>Less Important</td>
</tr>
</tbody>
</table>

Interpretation of the descriptions:

1. Less Important means the suggested competency is nice to have but not necessary for performing the job.
2. Important means that an individual should have basic knowledge of the suggested competency (Cognitive).
3. Very Important means that an individual must have demonstrated knowledge, skills and abilities to apply the suggested competency in his/her work (Psychomotor).
4. Critical means that an individual must not only have knowledge, skills and abilities to apply the suggested competency in his/her work but also can train and coach other in applying the competency (Affective).
The t-Test was used in determining whether or not a significant difference exists between the two groups’ perceptions on the competencies necessary for riparian officials. Its formula is as follows:

\[
t = \frac{X_1 - X_2}{\sqrt{\frac{(N-1)s_1^2 + (N-1)s_2^2}{N_1 + N_2 - 2}}}
\]

Where:

- \(X_1\) = Mean of group 1
- \(X_2\) = Mean of group 2
- \(s_1\) = Variance of group 1
- \(s_2\) = Variance of group 2
- \(N_1\) = Number of subjects in group 1
- \(N_2\) = Number of subjects in group 2
CHAPTER V

PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

This chapter presents the results of this Delphi study which have been analyzed, interpreted and synthesized by the researcher and deliberated by the panel of experts. The draft analysis and interpretation of data were sent to the two groups of experts for their final deliberation. Their comments and suggestions have also been incorporated in this final presentation.

The objective of this study is to solicit and analyze experts’ perceptions and recommendations on the basic functional and performance competencies needed by every riparian professional to enable him/her to effectively contribute to the work of the Mekong River Commission. The research has been designed to study the problem in three rounds: a) round one- using computerized Delphi questionnaire and communication process to find out the extent of importance of each proposed competency and its corresponding behavioral indicators; b) round two- conducting in-depth interview with different stakeholders to gain better understanding of the roles and function of the organization and its required human resource capacity; and c) the last round- soliciting experts’ reactions and agreements on the results of rounds one and two in regard to the roles and functions of MRC, its required human resource capacity and framework of the modular training program. While the questionnaire emphasized on getting the opinions of the experts on the required core competencies, the in-depth interview utilized guided questions to get detailed opinion of
selected riparian officials and external experts on functional elements of the organization, the required core competencies, indicators that define each core competency, working culture, values, and norms and learning styles. Knowing the learners’ working culture, organization values, and learning styles are vital to the development of a modular training program.

**Roles and Functions of the Mekong River Basin Commission**

Since required human resource capacity should derive from functional elements of the organization, the researcher started this study by conducting a secondary research on the roles and functions of the MRC from various documents including the 1995 Mekong Agreement, MRC Strategic Plan 2001 – 2005, MRC Core Programs and the History of Mekong Cooperation and the Helsinki’s International Water Laws. Comparative study on the roles and functions of MRC were made with those of the Murray Darling Basin Commission (MDBC) of Australia and the Danube River Basin Commission in Europe. The agreement on the use of water from the Niles between the Sudan, Ethiopia and Egypt was also studied, especially on how those countries share cost and benefits of the resources from the Niles international rivers. Information on the roles and functions were then discussed with policy makers and managers of MRC at both regional and national levels during the round two – interview sessions.

From the overwhelming responses and suggestions, especially from the external experts, the roles and functions of the Mekong River Basin Commission (which is an international river basin organization) are far more complex than those written in the MRC strategic plan 2001-2005. To quote “International river basin organizations are formed to
promote integrated and balanced water sharing among member countries...” (MRC Strategic Plan 4). Most of the respondents from the upper countries (Thailand and Laos) felt strongly that the balanced water sharing is not the only major issue in the cooperation for sustainable development of the Mekong River Basin. Mekong Spirit goes beyond what we get from the river. It also covers what each country contributes to the river and maintains the ecosystem in the river and by the river.

As stipulated in the 1995 Mekong Agreement signed by the four riparian governments, the MRC has been established “To cooperate in all fields of sustainable development, utilization, management and conservation of the water and related resources of the Mekong River Basin...” This study concludes that in order to achieve this ultimate goal, all institutions under the MRC system, i.e., the Council, the Joint Committee, MRC Secretariat and the four National Mekong Committees should develop appropriate mechanisms and human resource capacity to carry out the following transnational functions:

1. **Provision of common arena for member states to regularly meet and discuss issues related to their shared water resources.**

Since the birth of Mekong Cooperation in 1957, provision of common arena for meeting and dialogue has always been the primary function of this river basin organization. Providing riparian countries with a common and regular arena in order to give opportunities for each riparian country a) to consult with their counterparts and dialogue partners in other riparian states from time to time, b) to make representatives familiar with the way of thinking of the other representatives, and c) to promote mutual understanding and trust among participating parties. (Nakayama 1) Under the 1995 Agreement, these common arenas are a)
Annual MRC Council Meeting, b) Joint Committee Meetings, d) Dialogue Meeting with China and Myanmar, and d) Donor Consultative Meetings.

2. Resolution of conflicts among member states

This function is often regarded as the supreme rationale of having a river basin organization. It is similar to the role the United Nations is supposed to play in abating or resolving conflicts amongst nations, but limited to matters related to the use and management of water and related resources in the basin. Some of the transboundary conflicts that MRC has successfully mediated included Yali Dam run-off case between Vietnam and Cambodia and the Bank Erosion case between Thailand and Laos. However, a river basin organization has not always been useful in solving bigger conflicts. A notable example was the failure of the Mekong Committee in resolving conflicts among the two member states of Thailand and Vietnam in the early 1990's. As recommended by one of the external experts, this role has to be examined and clearly identified as to what extent having the MRC as a tool of conflict resolution. Some of conflicts are beyond the mandate of a river basin organization. All MRC members has to realize that if a dispute is taken to a higher level, then it may need a higher level forum such as the ASEAN for resolving the problem.

3. Promoting information sharing among various countries and agencies

The lower Mekong river basin is characterized by its diversities. There are significant differences in term of geographical, social and economic conditions, and needs for development between Laos’ Highland, Thai’s Korat Plateau, Cambodian’s Floodplains and the Mekong Delta of Vietnam. It is a safe assumption to make that a basin country usually
does not know much about other riparian states. It is particularly the case with such fundamental knowledge as meteorological and hydrological data. A basin country tends to be suspicious about any data offered by other riparian states. For example, the delay in formulating rules on Water Utilization. This delay was partly due to each party not trusting the meteorological and hydrological data provided by the other, consequently, each asking for more and more data. Having a common data and knowledge base among basin countries, as well as a credible center of data and knowledge at the MRC Secretariat, ought to be instrumental to the development of this international river basin.

4. Developing a coordinated water resource development and management scheme

This is often the major aim of harnessing riparian states, as borne out by many cases in the past. A realistic basin-wide management scheme may be developed only through the collaboration of riparian states. Having such a scheme serves as proof for other countries, in particular donor countries and aid agencies, that riparian countries are on good terms, to the extent that they have developed the scheme through collaboration and are ready to implement it in a coordinated manner. The four core MRC programs, i.e., Basin Development Planning Program (BDP), Water Utilization Program, Environment Program and Flood Mitigation and Management Program illustrate clearly the effort of MRC to achieve this role.

5. Securing assistance from donor countries and development aid agencies

Having a basin-wide development or management scheme motivates donor countries and aid agencies so that more financial and other sorts of assistance should be given to the
basin countries. In many cases, obtaining resources from outside is the only foreseeable and realistic way of moving a scheme from paper to reality. A development or management scheme should be very solid and "doable" for this sake. In the real situation, however, elaborating a realistic scheme as a team effort from all the basin countries, tends to be much more difficult than developing an unrealistic scheme. It is because the interests of each riparian state may not be fully reflected in a realistic scheme, while each country may put whatever it wants in an illusionary scheme. The latter is much easier to be agreed upon than the former. This reflects the difficulties in solving major transboundary issues and in planning and developing basin-wide projects.

6. Sharing of costs and benefits in water resources development and management

While it has materialized in only a limited number of international water systems, the sharing of costs and benefits should also be a major function of a river basin organization. Flow of funds between upstream state(s) and downstream nation(s) may facilitate development or management of the entire water system. Such benefits/cost sharing has been carried out between Mexico and the USA, as well as between Canada and the USA. While collaboration among riparian states has not reached this stage in the Mekong River systems, developing such a benefit/cost sharing scheme sounds essential for the sake of managing an international water system, in particular where and when shared water resources have become very precious resources. To effectively plan a Basin which crosses national borders, the plan must provide benefits to all of the nations in the Basin. Some questions started to emerge recently like a) while Laos contributes 35 percent of the flow of the Mekong River which benefits Cambodia Floodplains and the Mekong Delta (Mekong Delta is the most
fertile areas of Vietnam, producing over 40 percent of the country’s rice production), what will Laos get in return from the lower countries for maintaining its head waters and forest?, and b) what will Cambodia get from not making a dam across Tonle Sap river to allow free flow of water during the dry season to minimize saline intrusion in the Vietnam Delta?

**Profiles of the Panel of Experts**

Two kinds of research participants are essential to this study: (a) internal stakeholders, those who are directly affected, i.e. professional staff of MRC Secretariat, National Mekong Committees and national river basin organizations; and (b) the experts, those who have applicable specialties and relevant experiences.

Purposive sampling had been used to select fifty internal panelists. Consultative meetings were held with Management of the MRC to get their recommendations in regard to the composition of the internal panel. Basic selection criteria included representing the target population (Cambodian, Laos, Thai and Vietnamese), different levels and nature of involvement in the development of the Mekong River and variety of areas of expertise.

The researcher identified the list of external panel of experts from his professional interactions with these experts while working in this region in the last ten years. Out of the thirty-five proposed names, twenty-five accepted to participate in the research. The experts who declined to participate in this Delphi study are three Cambodians, two Thais, one Laos and four Vietnamese. The reasons for the non-participation were not only because they didn’t have enough time to spend for this lengthy process but also because they felt they didn’t have enough knowledge on the areas of study.
Relative frequency distribution is used in presenting the profile of the respondents

A. Nationality

Table 2: Profile of the external and internal experts in terms of nationality

<table>
<thead>
<tr>
<th>Nationality</th>
<th>External Experts</th>
<th>Internal Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>1. External experts from MRC countries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Cambodian</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>1.2 Laos</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>1.3 Thai</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>1.4 Vietnamese</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Sub total</td>
<td>16</td>
<td>64</td>
</tr>
<tr>
<td>2. External experts from other countries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 American</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>2.2 Australian</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>2.3 Finnish</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>2.4 Filipino</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>2.5 Irish</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>2.6 Dutch</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Sub total</td>
<td>9</td>
<td>36</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>
There were sixteen experts from the four riparian countries and nine international experts from six countries. All of them were or have been involved in the development of MRC’s institutions. Among the regional experts, Thai and Laos shared equal representation of five each while the other two countries were represented by three experts each. Among the international experts, Australians rank the highest in their participation, i.e. three experts, while Filipinos rank second with two experts. The other four countries had one representation each. The high participation of Australians in this research is due to the fact that there are now more and more Australians who are/have been involved in the development of the Mekong River, especially under the MDBC and MRC Strategic Liaison Program.

The composition of this internal panel was twenty-four Laos (48 percent), eleven Cambodians (22 percent), ten Thais (20 percent) and five Vietnamese (10 percent). The high percentage of Laos’ representation in the panel was due to the fact that the headquarters of MRC is situated in Vientiane, Lao PDR and more professional staff of the Lao National Mekong Committee were willing to participate in all three rounds of this research. The researcher was able to get five Vietnamese, four from the MRC Secretariat and one from the VNMC to participate in this research.
B. Gender

Table 3: Profile of external and internal experts in terms of gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>External Experts</th>
<th>Internal Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Male</td>
<td>14</td>
<td>56</td>
</tr>
<tr>
<td>Female</td>
<td>11</td>
<td>44</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Out of twenty-five external experts, fourteen are males and eleven are females. This demonstrates more or less, a gender balance in this panel. It was the intention of the researcher to have equal representation of gender in this research to ensure that both perspectives would be included in this research. For internal experts, it must be noted that the panel was male predominant (76 percent male and 24 percent female) while there was more gender balance among the external experts (56 percent male and 44 percent female). This was due to the fact that the development of the river basin, especially at national and regional levels, is still largely managed by men. To illustrate, out of thirty-nine riparian professional staff at the MRC Secretariat, only eight are females and out of twenty-five professional staff at the LNMC, only three are females. (MRC HRIS, September 2004). While MRC Gender Policy and Strategy have been in place since 2000, little has been done so far to increase the involvement of women in the development of the river basin, especially at the management and policy making levels.
Noticing the extreme under representation of female in the development of the Mekong River, the researcher has further conducted a secondary study on the past work of MRC related to gender mainstreaming activities. Based on four national reports on gender issues in water resources development in the Lower Mekong Basin, conducted by riparian officials in the water and related resources agencies, there are urgent needs to address gender concerns in development at both the project and institutional levels (MRCS Gender Proposal 4). The studies concluded that while they are the main users of water resources of the Mekong, women tend to lack political power and influence in community and institutional decision-making. At the institutional level, water resources line agencies in the riparian countries have generally been putting gender concerns as low priority. This is reflected in the lack of gender policies and accountability on gender issues, under representation of women in high ranking positions and in technical and professional positions, unequal training and promotion opportunities for female staff and a lack of gender awareness among staff at all levels. For instance the participation of women officials in MRC sponsored human resources development opportunities in 1998, out of 1,406 participants only 239 or 17 percent were women (MRCS Gender Proposal 9).

The low participation of women in public function and government related activities, reflects strong paternal culture. A riparian woman is considered a house manager and a financial controller of her family. This role is respected by all but when it comes to community participation and government matters, male members of the family automatically take over the leading role. This paternalistic practice is clearly reflected in the MRC organizational culture. This culture must be studied carefully so that right and appropriate
interventions can be taken to improve the women participation. Many gender advocates in the past failed to get active involvement of riparian women in development works, especially at policy or decision making levels. Understanding your organization’s culture is therefore very important. As emphasized by Owens: “The culture of the organization in which one works exerts great influence in our thinking and behavior. Often greater, indeed, than the power of official policies, programs, rules, and regulations . . . .” (xi).

C. Educational Attainment

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Field of Specialization</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master’s Degree</td>
<td>Human Resource Management</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Management</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Natural Resources and Environment</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Engineering</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Economics</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Sub total</strong></td>
<td><strong>17</strong></td>
<td><strong>68</strong></td>
</tr>
<tr>
<td>Postgraduate’s Degree</td>
<td>Human Resource Management</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Engineering</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Economics</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Sub total</strong></td>
<td><strong>8</strong></td>
<td><strong>32</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>25</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
Table 5: Profile of the internal experts in terms of educational attainment

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Area of Specialization</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s Degree</td>
<td>Engineer</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Water Supply</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>6</strong></td>
<td><strong>12</strong></td>
</tr>
<tr>
<td>Masters’ Degree</td>
<td>Finance</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Geography and Mapping</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Liberal Arts (HRM, Social works, etc)</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Engineering</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Tourism</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Navigation</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Water Resources Development</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Hydrology</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Natural Resources Management and Environment</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Fisheries</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Hydro Power</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Agriculture and Forestry</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Sub Total</strong></td>
<td><strong>37</strong></td>
<td><strong>74</strong></td>
</tr>
<tr>
<td>Postgraduates’ Degree</td>
<td>Hydrology</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Engineer</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Agriculture and Forestry</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Fisheries</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>7</strong></td>
<td><strong>14</strong></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td><strong>50</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
The success of this research rests heavily on the expertise brought in by the external experts on core river basin competencies. As shown in Table 4, this external group of experts is very rich in knowledge, expertise, and cultures. It is composed of sixteen regional experts from the four riparian countries and nine international experts from six countries. All of them have masters’ degree and eight of them (32 percent) have postgraduates’ degree. They together, cover wide range of areas of expertise required in the development of Mekong River basin.

All internal experts are college graduates and majority of them have Masters’ Degrees (74 percent). Seven of the respondents are postgraduates. Common technical competencies among riparian staff include Engineering, Hydrology, Energy Development, Natural Resources and Environment, Ecology, Water Supply, Fisheries and Agriculture. There are very few professional staff with liberal arts or humanity education backgrounds. For example, out of thirty-nine riparian professionals working at the MRC Secretariat, only four are in the field of liberal arts (MRC HRIS, September 2004). This reflects on the past emphasis of the Mekong Cooperation which was mostly technical in nature, e.g. hydropower development, flood forecasting, irrigated agriculture and navigation. With the drastic change in the MRC vision and mission from the “Dam Builder” to the sustainable development which includes social, economic, and environmental concerns, more people-oriented human resources are needed urgently to compliment the present workforce. Although highly technical competent workforce had been very useful in the past when the organization needed all experts to explore and investigate the Mekong River, this no longer can serve the needs of the new mandates where facilitation, multicultural competency, information literacy
and team skills are now very important, sometimes, even more important than the narrow views of “specialists.”

D. Level of Responsibility

Table 6: Profile of the internal and external experts in terms of level of responsibility

<table>
<thead>
<tr>
<th>Level of Responsibility</th>
<th>External Experts</th>
<th>Internal Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Policy Makers</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Management</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td>Specialists</td>
<td>13</td>
<td>52</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Thirteen (52 percent) of the external experts are training specialists who have been providing training and consultant services in the four countries. Eight (32 percent) of them are managers of academic and training institutions in the region like Asian Institute of Technology, International Education Institute, Angeles University and Laos National Telecommunication Training Center. Four (16 percent) are policy makers or senior managers of national and international organizations (UNDP, ADB, Advisor to NMC and WHO).

In regard to the composition of the internal group of experts, five are policy makers. These include three Directors of MRCS divisions, one Director General of LNMC and one Director of Mekong Affairs Unit of TNMC. The nine internal management respondents are six MRCS managers, one CNMC manager and two LNMC managers. Specialists include
twenty professional staff of the four National Mekong Committees and line agencies and sixteen MRCS professional staff. This purposive sampling method of selecting internal respondents ensured that target populations at all three levels were represented in the study.

E. Nature of involvement in the development of Mekong River Basin

Table 7: Profile of external and internal experts in terms of nature of involvement

<table>
<thead>
<tr>
<th>Nature of Involvement</th>
<th>External Experts</th>
<th>Internal Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Capacity Building and HRD</td>
<td>13</td>
<td>52</td>
</tr>
<tr>
<td>Technical Assistance</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>Policy Advising</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
<tr>
<td>Work with Mekong River Commission Secretariat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work with National Mekong Committee and Line Agencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The involvement of the external experts with the development of Mekong included providing policy advice (24 percent), technical assistance (24 percent), and capacity building (52 percent) services to MRC at both national and regional levels. Eight of the panelists are from training institutions which have great potentials to become human resource development partners of the MRC. The highest number of representation is in the area of capacity building and human resource development.
For the internal experts, twenty-five are riparian officials working at the Secretariat of the MRC (three directors, six managers and sixteen professional staff and subject experts). Another twenty-five are riparian officials working in the four member countries with their respective National Mekong Committees and line agencies (two directors, three managers and twenty professional staff and subject experts). All of them have been involved in the work of MRC for more than one year.

The extent of importance of the core competencies to the riparian officials’ performance.

Each of the following Tables shows the extent of importance of the corresponding competency and its behavioral indicators in the scale of 1 to 4, where 1 is Less Important, 2 is Important, 3 is Very Important and 4 is Critical. It must be noted that column two and column four of each of the Tables below show the level of importance of each indicator based on the weighted mean. The analysis and interpretation of data presented herewith, include comments and recommendations gathered from the in-depth interview and round three deliberation sessions.

A. Communication Skills

Communication competency refers to an individual’s ability to clearly and convincingly express thoughts, ideas or fact in individual or group situations. They are five basic communication competency categories (Burerkel-Rothfuss 26), i.e. symbolizing,
processing, adapting, controlling and expressing. These competencies are phrased in behavioral indicator format in Table 8.

**Table 8**: The extent of importance of communication skills as perceived by external and internal panel of experts

<table>
<thead>
<tr>
<th>Competencies</th>
<th>External Experts</th>
<th>Internal Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>X</td>
<td>Description</td>
</tr>
<tr>
<td>1. Presents issues &amp; information in clear and credible manner</td>
<td>3.28</td>
<td>Critical</td>
</tr>
<tr>
<td>2. Listens to others, correctly interprets messages from others and responds appropriately</td>
<td>3.36</td>
<td>Critical</td>
</tr>
<tr>
<td>3. Tailors communication to intended audience and uses appropriate tools and strategies (tone, format, style, etc.) to convey information.</td>
<td>3.00</td>
<td>Very Important</td>
</tr>
<tr>
<td>4. Exercises open, honest, and bilateral communication.</td>
<td>3.28</td>
<td>Critical</td>
</tr>
<tr>
<td>5. Uses appropriate verbal and non-verbal symbols in communication.</td>
<td>2.76</td>
<td>Very Important</td>
</tr>
<tr>
<td><strong>Aggregate Mean</strong></td>
<td><strong>3.14</strong></td>
<td><strong>Very Important</strong></td>
</tr>
</tbody>
</table>

The external experts view communicating in clear and credible manner (X 3.36), listening, interpreting and responding appropriately to others (X 3.28) and exercising open, honest and two-way communication (X 3.28) as “Critical” to the performance of riparian officials. Out of the five behavioral indicators, the external panel viewed using verbal and non-verbal symbols in communication as the least important indicator (X 2.76).
While agreeing with the external experts’ view in regard to the importance of communicating in clear and credible manner (X 2.94), listening, interpreting and responding appropriately to others (X 3.00), the internal panel viewed exercising open, honest and two-way communication as the least important behavior among the five indicators. This may reflect the riparian culture of communication that sometimes, it is more appropriate not to say everything one thinks. While outsiders viewed that direct and honest communication is critical, the riparian officials might perceived that one has to consider various factors like political sensitivity and audience’s historical background before expressing his/her view.

During the in-depth interview round, many riparian officials expressed that riparian style of communication (humbleness, implicit or using symbols, and non-confrontation) has to be respected and taken into consideration when designing training program to improve “Communication Skills”. Communication competence is an assessment of the appropriateness of communication behavior made by the participants in an interaction. These assessments may differ because “meanings are in people.” Therefore communication competence can vary with context because some persons are more competent in some settings than they are in others. In short, a competent communicator is someone, who, in specific contexts, is perceived by others as intentionally selecting appropriate communication skills to achieve mutually desirable outcomes (Burerkel-Rothfuss 26).

In addition to the above indicators, some of the experts added, that English proficiency in both spoken and written, facilitative speaking and using modern communication technology are also “Critical” for any one who works with an international organization.
B. Facilitation

Facilitation competency is the capability that enable an individual to facilitate communication, encourage sharing of information, mediate problem-solving and negotiation processes, which allow all stakeholders to make decisions for themselves. This requires a combination of skills and an understanding of group dynamics that allow planners and organizers to explore stakeholders’ perspectives and open channels of communication amongst different stakeholders.

Table 9: The extent of importance of facilitation as perceived by external and internal panel of experts

<table>
<thead>
<tr>
<th>Competencies</th>
<th>External Experts</th>
<th>Internal Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitation</td>
<td>X</td>
<td>Description</td>
</tr>
<tr>
<td>1. Can design, plan, coordinate, and facilitate official functions</td>
<td>3.08 Very</td>
<td>3.06 Very</td>
</tr>
<tr>
<td></td>
<td>Important</td>
<td>Important</td>
</tr>
<tr>
<td>2. Has knowledge of official protocols and regulations</td>
<td>3.04 Very</td>
<td>2.94 Very</td>
</tr>
<tr>
<td></td>
<td>Important</td>
<td>Important</td>
</tr>
<tr>
<td>3. Can conduct stakeholder analysis and facilitate the participation of</td>
<td>3.04 Very</td>
<td>2.98 Very</td>
</tr>
<tr>
<td>stakeholders at national and regional levels.</td>
<td>Important</td>
<td>Important</td>
</tr>
<tr>
<td>4. Can facilitate participatory planning process, public forum and community</td>
<td>3.00 Very</td>
<td>2.94 Very</td>
</tr>
<tr>
<td>participation.</td>
<td>Important</td>
<td>Important</td>
</tr>
<tr>
<td>5. Can demonstrate key collaborative problem solving skills and attitudes</td>
<td>3.21 Very</td>
<td>3.10 Very</td>
</tr>
<tr>
<td></td>
<td>Important</td>
<td>Important</td>
</tr>
<tr>
<td><strong>Aggregate Mean</strong></td>
<td><strong>3.07 Very</strong></td>
<td><strong>3.00 Very</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Important</strong></td>
<td><strong>Important</strong></td>
</tr>
</tbody>
</table>

Out of the five behavioral indicators of Facilitation, both external and internal panels of experts viewed demonstrated skills and attitude in solving problem as the most important one with the mean of 3.21 and 3.10 respectively. This includes the ability to develop, analyze options, objectivity, confidentiality, neutrality, respect for differences and honesty. Majority
of the respondents of round two and round three of this Delphi study also expressed that Facilitation was emerging as an important aspect of effective river basin resources assessment, negotiation, formulating project, getting project endorsed by river basin committee at various levels and building the capacities of water users in Integrated Water Resource Management. Because of these demands for change, more and more planners and managers of a river basin organization are now called upon to act as facilitators. They must marshal the skills necessary to serve as teachers and trainers, counselors and negotiators, team leaders and coaches. These are the very skills needed in today’s new style of management, with its emphasis on coaching, collaboration, flexibility, communication of a sense of values, and shared respect for everyone in the organization (Kiser 2).

In addition to the above findings, some of the experts expressed that skills in planning and facilitating public participation and stakeholder involvement are “Critical” to the performance of riparian officials, especially at the national and program levels.

C. Information Literacy

Information literacy is a set of abilities requiring individual to recognize when information is needed and to have ability to locate, evaluate, and use effectively the needed information (American Library Association 2). Information literacy forms the basis for lifelong learning. It is common to all disciplines, to all learning environments, and to all levels of education. (American Library Association 2)
**Table 10:** The extent of importance of information literacy as perceived by external and internal panel of experts

<table>
<thead>
<tr>
<th>Competencies</th>
<th>External Experts</th>
<th>Internal Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Competencies</strong></td>
<td><strong>X</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td><strong>Information Literacy</strong></td>
<td><strong>X</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>1. Can define and articulate the nature and extent of the information needed.</td>
<td>3.00</td>
<td>Very Important</td>
</tr>
<tr>
<td>2. Can locate, select the most appropriate investigative methods to extract, record and manage the information and its sources.</td>
<td>2.88</td>
<td>Very Important</td>
</tr>
<tr>
<td>3. Can evaluate information and its sources critically</td>
<td>3.32</td>
<td>Critical</td>
</tr>
<tr>
<td>4. Can summarize the main ideas to be extracted from the information gathered.</td>
<td>3.32</td>
<td>Critical</td>
</tr>
<tr>
<td>5. Can use information effectively to accomplish a specific purpose</td>
<td>3.29</td>
<td>Critical</td>
</tr>
<tr>
<td>6. Has knowledge of and follow laws, regulations, institutional policies and etiquette related to the access and use of information.</td>
<td>3.00</td>
<td>Very Important</td>
</tr>
<tr>
<td><strong>Aggregate Mean</strong></td>
<td>3.14</td>
<td>Very Important</td>
</tr>
</tbody>
</table>

The external panel viewed the ability to evaluate information and its sources critically and summarize the main ideas to be extracted from the information gathered as the two most important behavioral indicators with aggregate weighted mean of 3.32 each.

It is important to point out that the internal panel viewed an individual riparian official’s knowledge of and follow laws, regulations, institutional policies and etiquette related to the access and use of information as the most important performance indicator,
with aggregate weighted mean of 3.32. This shows that riparian officials recognize the importance of following rules and procedures in obtaining and sharing information amongst themselves and with other stakeholders. The Mekong Cooperation since its commencement in 1957 has been characterized by political conflicts and mistrusts, especially during the cold war period. A basin country tends to be suspicious about any data offered by other riparian states and all officials may be instructed by their respective governments to strictly follow country regulations in regard to sharing of information. In the present information age, withholding information and being secretive about development activities in the basin are almost impossible. Riparian officials need not only follow the established rules and regulations but to learn new skills in managing information and analyzing them critically.

Both panels agreed that Information Literacy is “Very Important” to the performance of a riparian personnel of MRC system. With the rapid changes and development in this region, it is vital that human resources of the MRC must be able to recognize when and what information is needed and to have the ability to locate, evaluate, and use effectively the needed information. As expressed by one of the external experts “Members of a river basin organization are integrators of knowledge and of people. They must have the overall understanding of the basin and its planning issues. They must know who the relevant stakeholders are and who should be involved. They should know other development and regional cooperation initiatives so that complete information and choices can be given to decision makers”.

The study concluded that in order to be information literate in the context of MRC, a riparian official must be competent in the following skill areas: a) Applied Research, b)
Information Analysis, c) Information Generation, and d) Information Technology. These skills would enable a riparian official to get access to the needed information, master its content, evaluate information and its sources critically, incorporate selected information into one’s knowledge base, use information effectively to accomplish his/her purpose with good understanding of its legal and social implications.

The ability to use modern “Information Technologies”, knowledge of MRC information management system, and other development initiatives in the region are raised by some experts as “Very Important” competencies to be added to Information Literacy. Information technology skills enable an individual to use computers, software applications, databases and other technologies to achieve a wide variety of academic, work-related, and personal goals.

D. Innovation and Proactivity

At individual level, innovation and proactivity refer to the ability to fulfill responsibilities on time and according to expectations of others (superiors and peers), the ability to identify opportunities for improvement, and the willingness to complete tasks beyond the scope of initial instructions. Innovation involves thinking skills and proactive attitude. Dr. de Bono (11) calls the skill of thinking, “operacy”
Table 11: The extent of importance of innovation and proactivity as perceived by external and internal panel of experts

<table>
<thead>
<tr>
<th>Competencies</th>
<th>External Experts</th>
<th>Internal Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation &amp; Proactivity</td>
<td>X</td>
<td>Description</td>
</tr>
<tr>
<td>1. Actively seeks to improve programs or services.</td>
<td>3.00</td>
<td>Very Important</td>
</tr>
<tr>
<td>2. Offers new and different options to solve problems or meet clients’ needs.</td>
<td>2.92</td>
<td>Very Important</td>
</tr>
<tr>
<td>3. Communicates new ideas, directions and goals to others in a positive and credible manner.</td>
<td>2.87</td>
<td>Very Important</td>
</tr>
<tr>
<td>4. Takes calculated risks on new and unusual ideas: thinks “outside the box.”</td>
<td>2.84</td>
<td>Very Important</td>
</tr>
<tr>
<td>5. Takes an interest in new ideas and new ways of doing things</td>
<td>2.96</td>
<td>Very Important</td>
</tr>
<tr>
<td>6. Is flexible with work assignments and demonstrates willingness to accept new responsibilities</td>
<td>3.00</td>
<td>Very Important</td>
</tr>
<tr>
<td>7. Develops needed competencies for different assignments</td>
<td>3.12</td>
<td>Very Important</td>
</tr>
<tr>
<td>Aggregate Mean</td>
<td>2.96</td>
<td>Very Important</td>
</tr>
</tbody>
</table>

As shown in Table 11 above, both groups recognized that innovation and proactivity are “Very Important” to the performance of riparian officials. Developing needed competencies for different assignments was considered by the external panel as the most important performance indicator for a riparian official (X 3.12) while the internal panel viewed communicating new ideas and goals to others in a credible and positive manner as the highest one (X 3.06). It must be noted that during round two of this study, several
comments were made, especially by the members of the panel at the decision maker and management levels, that innovation and creativity are important but these must be within the confined roles and framework of the organizations’ mission and goals. Initiating something outside the mandate of the 1995 Agreement can cause misunderstandings and conflicts.

While recognizing that innovation is important, some experts viewed that innovation has to be facilitated by the work climate in the MRC as a whole. Innovation must be encouraged by the management and must be comprehensive. It must include an organized, systematic, and continual search for new opportunities, partners and strategic alliances and involve everyone in the innovation process (Tucker 2-6). This MRC competitiveness has to be supported by the skills, knowledge, commitment, and innovative abilities of its human resources at all levels. Because “business as usual” has not produced the desired results. To win the competitive game, every MRC institution must strive to provide stakeholders with a value proposition that is noticeably superior to the one offered during the Mekong Committee era.

E. Cultural Competency

Cultural competency is the ability to show understanding, support, courtesy, tact and cooperation in interactions with peoples from different backgrounds, gender, cultures, and social orientations. As defined by King, Sim, and Osher (1-2), Cultural competence is a set of congruent behavior, attitude and policies that come together among professionals and enables these professionals to work effectively in cross cultural situations.
Table 12: The extent of importance of cultural competency as perceived by external and internal panel of experts

<table>
<thead>
<tr>
<th>Competencies</th>
<th>External Experts</th>
<th>Internal Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Competency</td>
<td>X</td>
<td>Description</td>
</tr>
<tr>
<td>1. Awareness and acceptance of the wide range of cultural diversity (Be aware of differences in values, communication styles, spirituality, definitions of family and be accepting of those differences.)</td>
<td>3.40</td>
<td>Critical</td>
</tr>
<tr>
<td>2. Examines own biases and behaviors to avoid stereotypical responses</td>
<td>3.24</td>
<td>Very Important</td>
</tr>
<tr>
<td>3. Treats men and women equally</td>
<td>3.08</td>
<td>Very Important</td>
</tr>
<tr>
<td>4. Shows awareness of one’s own cultural values and identity</td>
<td>3.24</td>
<td>Very Important</td>
</tr>
<tr>
<td>5. Works effectively with people from all backgrounds</td>
<td>3.28</td>
<td>Critical</td>
</tr>
</tbody>
</table>

| Aggregate Mean | 3.25 | Critical | 2.89 | Very Important |

The importance of Cultural Competency to the performance of riparian officials of the MRC system was described as “Critical” by the panel of external experts and as “Very Important” by the panel of internal experts. This illustrates that everybody who are working with an international river basin organization must have demonstrated cultural and political ability.

MRC Secretariat and its programs basin-wide are the houses of cultural diversities. There were 14 nationalities working at the MRC Headquarters during the study period. The riparian officials not only have to know and appreciate the cultures of the four member
countries but they must also be sensitive to the cultures and values of technical experts from other 10 countries.

Working with people from other cultures can be frustrating, confusing and lonely. It is, therefore, important that a riparian official has the ability to maintain a positive attitude, to tolerate strong emotions, and to cope with ambiguity and stress. Adapting to different ways of thinking and acting requires an ability to be open to ideas that are different from one’s own and to people who are different from oneself. Cultural competency also involves paying attention to the context of the communication, being able to read people’s emotions, being sensitive to one’s effect on others, and communicating accurately. A person with high cultural competency has the ability to maintain one’s own personal values and beliefs and know how to make and act on their own decisions while respecting the decisions of others. As elaborated by Clairmont (2-3), a person can work to achieve cultural competence through awareness and acceptance of the wide range of cultural diversity, awareness of one’s own cultural values and identity, understanding how differences may impact relationships, knowledge of client’s culture, and utilizing this information to adapt his/her services and skills.

F. Team Skills

Managing a team requires a set of skills that cut across several other core competencies; facilitation, teamwork, influence, and creative communication. People who excel in team leadership always want to work through a group and often work behind the scenes to keep their colleagues committed and engaged, so work can proceed as planned.
Table 13: The extent of importance of team skills as perceived by external and internal panel of experts

<table>
<thead>
<tr>
<th>Competencies</th>
<th>External Experts</th>
<th>Internal Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Team Skills</strong></td>
<td>X</td>
<td>Description</td>
</tr>
<tr>
<td>1. Has a multi-disciplinary team approach in every stage of program planning and coordination, and to continually explore ways to enhance and improve cross discipline integration.</td>
<td>3.16</td>
<td>Very Important</td>
</tr>
<tr>
<td>2. Works collaboratively with colleagues to achieve the organizational goals and willing to learn from each other</td>
<td>3.24</td>
<td>Very Important</td>
</tr>
<tr>
<td>3. Shows respect for and understanding of diverse points of view and demonstrates this understanding in daily work and decision-making</td>
<td>3.25</td>
<td>Critical</td>
</tr>
<tr>
<td>4. Supports and acts in accordance with final group decision, even when such decisions may not entirely reflect own position</td>
<td>3.16</td>
<td>Very Important</td>
</tr>
<tr>
<td>5. Shares credit for team accomplishments and accepts joint responsibility for team shortcomings</td>
<td>3.20</td>
<td>Very Important</td>
</tr>
<tr>
<td><strong>Aggregate Mean</strong></td>
<td>3.20</td>
<td>Very Important</td>
</tr>
</tbody>
</table>

Both panels agreed that team skills are “Very Important” to the performance of members of the MRC system with the mean of 3.20 and 3.02 respectively. With modern communication and information technologies, forming a team is no longer limited to being together at the same place at the same time. As shown in a benchmarking study of “Virtual Teams” conducted by Majchrzak, Malhotra, Stamps and Lipnack (131-32), when a project requires a diversity of competencies and perspectives and the work can be done by means of
electronic documents and tools, it’s better to opt for a far-flung team than for one that works face-to-face. Such teams not only have a wider variety of communication channels at their command but also are free from many of the psychological and practical obstacles to full and effective participation that hobble traditional team settings in the past.

MRC has been trying for several years to implement a system of working groups to ensure improved coordination of MRC activities. As written in the MRC Working Group Guidelines (1), “This represents a ‘soft’ matrix-type organisation of MRC work, whereby staff continue to report to one supervisor only, but can become members of a taskforce/working group and can pass certain types of information/output horizontally to staff of other Divisions/Sections without passing through senior management of their own Division/Section. Working groups will not meet unnecessarily, but use the LAN and internet for day-to-day communication. Meetings will be conducted to produce specific outputs only, and as much as possible, through the internet team rooms or teleconferences”. This is a virtual team system.

To form a successful virtual team, Majchrzak, Malhotra, Stamps and Lipnack set three principles: a) “Exploit Diversity” which deals with how the team should be composed (132); b) “Use Technology to Simulate Reality” which deals with how the team members use technology to coordinate their efforts (134); and c) “Hold the Team Together” which deals with how team leaders induce a collection of strangers with little in common to function as a mutually supportive group (136). Therefore, to be able to participate effectively in the virtual working group system of the MRC, a riparian official must have the ability to communicate creatively through modern communication technologies (intranet, internet, online team
rooms, and telephone or video conferences). The river basin institutions under the MRC system must provide the context for people to collaborate in groups, teams, divisions, and departments without boundaries or fear. And since innovation is really a process of problem-solving, this informal networking cannot be limited only to internal sources. It goes beyond traditional boundary of team spirit which is mostly confined within his/her own department, program, or inner group.

Table 14: Summary of the extent of importance of overall competencies as perceived by external and internal panel of experts

<table>
<thead>
<tr>
<th>Group of Competencies</th>
<th>External Experts</th>
<th></th>
<th>Internal Experts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WX</td>
<td>Description</td>
<td>WX</td>
<td>Description</td>
</tr>
<tr>
<td>Communication</td>
<td>3.14</td>
<td>Very Important</td>
<td>2.80</td>
<td>Very Important</td>
</tr>
<tr>
<td>Facilitation</td>
<td>3.07</td>
<td>Very Important</td>
<td>3.00</td>
<td>Very Important</td>
</tr>
<tr>
<td>Information Literacy</td>
<td>3.14</td>
<td>Very Important</td>
<td>3.03</td>
<td>Very Important</td>
</tr>
<tr>
<td>Innovation &amp; Proactivity</td>
<td>2.96</td>
<td>Very Important</td>
<td>2.87</td>
<td>Very Important</td>
</tr>
<tr>
<td>Cultural Competency</td>
<td>3.25</td>
<td>Critical</td>
<td>2.89</td>
<td>Very Important</td>
</tr>
<tr>
<td>Team Skills</td>
<td>3.20</td>
<td>Very Important</td>
<td>3.02</td>
<td>Very Important</td>
</tr>
<tr>
<td><strong>Aggregate Grand Mean</strong></td>
<td><strong>3.13</strong></td>
<td><strong>Very Important</strong></td>
<td><strong>2.94</strong></td>
<td><strong>Very Important</strong></td>
</tr>
</tbody>
</table>

As shown in Table 14 above, while both groups of experts perceived all proposed core competencies as “Very Important”, the external group of experts value the importance of these competencies more than the internal group of experts. The higher appreciation of these performance competencies by the external experts might have been influenced by their
dynamic working cultures, exposure to global and transnational settings, and attitude toward culture of competence.

It must be noted that “Cultural Competency” is described by the external panel of experts as “Critical.” This illustrates that the external experts, who have more global views and working experience in international settings, give the highest value to “Cultural Competency”. It also emphasizes that to successfully build the culture of competence in the workforce of MRC, all riparian personnel must be able to work in a new transnational setting which is characterized by the “politics of recognition” and the culture of “multiculturalism”. Transnational means the creation, organization, and management of multicultural teams – groups that represent diversity in functional capacities, experience levels, and cultural backgrounds. A training program to be developed out of this study must focus on building “Cultural Competency” of the workforce. It should develop the staff on how to lead, work with, and communicate with multicultural teams. As elaborates by Lindemann (5), diversity in the workplace and multiculturalism in international enterprises like the MRC both engender the need to compare, contrast, and understand cultural differences in a new way that does not attempt to make everyone alike but recognizes differences and exploit or taking advantage of the diversity.

During the final deliberation, general impression of both panels of experts was that all of the proposed competencies are interrelated and cannot be acquired without having the other. For example, to excel in team leadership, a riparian official must have creative communication, facilitation skills, proactive and sensitive to needs of members and culture. Another wakeup call from the panels was that these performance competencies could not be
taught but caught. Therefore, the futuristic alternative concept of curriculum development should be used to interweave these skills in all human resource development activities of the organization.

Differences and similarities in the perception of the external and internal experts in each of the core competencies.

The t-test was used in determining whether or not a significant difference existed between the perceptions of external experts and the internal experts on the proposed core competencies. The results are presented in Table 15 below.

Table 15: Test of independence between external and internal experts in each of the variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>t Values</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Computed</td>
<td>Tabular</td>
</tr>
<tr>
<td>Communication</td>
<td>2.465</td>
<td>2.365</td>
</tr>
<tr>
<td>Facilitation</td>
<td>1.437</td>
<td>2.306</td>
</tr>
<tr>
<td>Information Literacy</td>
<td>1.009</td>
<td>2.228</td>
</tr>
<tr>
<td>Innovation &amp; Proactivity</td>
<td>1.568</td>
<td>2.201</td>
</tr>
<tr>
<td>Cultural Competency</td>
<td>5.176</td>
<td>2.306</td>
</tr>
<tr>
<td>Team Skills</td>
<td>3.778</td>
<td>2.447</td>
</tr>
<tr>
<td>Overall of the Core Competencies</td>
<td>3.660</td>
<td>2.571</td>
</tr>
</tbody>
</table>
As shown in Table 15, of the six groups of competencies, three of them are viewed by both the external and internal groups of experts in the same way. These competencies are Facilitation, Information Literacy and Innovation & Proactivity. This means that there is no significant difference in the perceptions of the two groups of experts on these variables. This can be seen in their respective computed t Values which are lesser than their corresponding tabular values.

On the other hand, in terms of Communication, Cultural Competency and Team Skills, the two groups of experts show a significant difference in their perspectives. This is being manifested in their respective computed t Values which are greater than their corresponding tabular values. Some major differences are those which deal with cultural issues and political sensitivity like the communication styles, introvert versus extrovert cross-cultural interaction and diversity versus homogenous team composition.

Table 15 also shows that there is a significant difference between the perception of internal experts and external experts in the overall core competencies. This is being manifested in the computed t Value which is greater than its corresponding tabular value. Different working cultures, exposures, and values might have been the reasons behind this difference. MRC like other living organizations, is characterized by its “culture” – the norms that inform people what is acceptable and what is not, the values that the organization cherishes above others, the beliefs that are shared by its members, the rules of the game that must be observed if one is to get along and be accepted as a member, and the philosophy that guides the organization (Owen 26).
Change is possible. To move forward, the management of the MRC must give high value to these core competencies and recognize that the only thing that sustain the organization competitiveness are the skills, knowledge, commitment, and innovative abilities of its people. Cultural of competence cannot be confined to one or two departments or farmed out to an elite group or foreign experts. Instead it must permeate the entire organization. The MRC should provide the context for all personnel (riparian and international staff) to collaborate it groups, teams, divisions, and departments without boundaries or fear.

Knowledge of and Application Ability in Integrated River Basin Management as the Basic Competency of a River Basin Organization

Based on the comments and suggestions of the panel of experts and information gather during the in-depth interview of key players, functional competencies in “Integrated River Basin Management” (IRBM) must be included in the requirements for riparian officials involved in developing Mekong River. As expressed by several experts, the IRBM should be the core river basin competency where other performance competencies help to ensure that knowledge, skills and information on IRBM are implemented and passed on effectively. Twenty-nine of the forty-five respondents of round two further agreed that to enable a riparian official (regardless of his/her professional level in the MRC system) to contribute to the MRC goals, he/she must have two demonstrated abilities, i.e., being thorough in the
integrated river basin management (IRBM) and being equipped with the performance competencies.

While agreed with the round one result that all six proposed core competencies are essential for a member of a river basin organization, majority of round two (32 out of 45 respondents) their concerns that the foundation or performance competencies proposed in the survey were not adequate. To quote some of the expressions “You may learn how to dance beautifully (have all the performance competencies), but without substance in river basin management knowledge, you cannot deliver.” And “You may produce great Basin Development Planning Process, but without any project to implement, your effort would be wasted.” The study has identified three sets of IRBM areas as the core functional competencies of the riparian officials. These include a) Strategic Planning and Management, b) Program Cycle Management and Logical Framework, and c) Integrated River Basin Planning. These three areas of IRBM form the bases for developing core training modules for the MRC.
CHAPTER VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter summarizes key points which have been elaborated in the first five chapters. This includes restatement of the research problems, theoretical framework, research methodology, and findings of the study. The chapter also provides conclusions and recommendations based on the findings and results of competencies analysis.

SUMMARY

In recent times, interest in and need for a competency-based approach to education have intensified – an outcome of public outcry against the failing educational system in general, and the dissatisfaction experienced by practitioners from the inadequacy of a discipline-based approach in providing solutions to dynamic problems posed in the society. Today, the subject-focused curriculum is a target of criticism, in failing to provide learners with desirable intellectual skills needed for a competitive society. The world has changed and the required competencies with it. Some knowledge and skills acquired from “Yesteryear School” may no longer be relevant to the needs of transnational society like the Mekong River Basin which cut across six national states. The researcher, therefore, wanted to find out what the required core competencies for riparian officials, involved in the development of Mekong River would be, during this new era. The set of core competencies
is the complex combination of skills, knowledge and abilities demonstrated by the human resource of an effective organization in the age of information economy. Evidences show that core competencies required for transnational workforce in the present era are far more different than those praised in the last century. Communication, information literacy and multicultural competency are now considered more critical to a riparian official than ever before.

The researcher conducted this Delphi study by soliciting opinion of two groups of experts (riparian officials and external experts) on six sets of performance competencies. Specific research questions are:

1) What is the profile of research respondents (external and internal experts) in terms of nationality, gender, educational attainment, level of responsibility and nature of involvement in the development of Mekong River Basin?

2) What is the extent of importance of each of the following core competencies to the performance of riparian officials involved in developing Mekong River as expressed by the external and internal experts: Communication, Facilitation, Information Literacy, Innovation & Proactivity, Cultural Competency, and Team Skills?

3) Is there a significant difference in the perception of the external and internal experts in the following competencies: Communication, Facilitation, Information Literacy, Innovation & Proactivity, Cultural Competency, and Team Skills?

The Mekong River Commission had been selected as the research environment mainly because of its transnational nature and multi-cultural settings. The lower Mekong River Basin covers major areas in four riparian countries – from the Northern Highlands of
Laos, through Korat Plateau of Thailand, to the Tonle Sap wetland of Cambodia and the Mekong Delta of Vietnam. The works of MRC affect the socio-economic conditions of over 60 million peoples. Since the establishment of the organization in 1995, several efforts have been initiated by donors and the national governments to restructure the MRC systems, improve the policy framework and re-engineer operating procedures. Still, the capacity of the organization’s human resource is limited and the execution of major development and research functions are still being managed by foreign experts and external firms. This raises the importance of the research problem to find out what limit the riparian officials from contributing fully to the work of the Commission. Is it the lack of basic competencies that hinder the absorbing and implementing capacity of the riparian officials assigned to different core programs? Or, have they been given wrong diagnoses of the training needs and priorities by external training service providers?

The study anchors on participatory-centered education, competency-based training model and normative system approach. First, the researcher believes that human being is no match by any living things in terms of adapting, growing and self-activating. People, young and old, can continue to develop and improve through education that is meaningful and progressive. Second, competency-based model should be implemented across all HRD programs – shifting the focus from what people “have” to what they can “do.” Demonstration and assessibility are key contributors of this concept. Third, normative system approach should be applied throughout the development intervention. This approach stresses the key influence of norms on personal and organizational effectiveness. It seeks to increase people’s understanding of the influence of culture upon their lives and helps them to
devise ways of making certain that the cultures they are part of reflect their highest goals and aspiration.

The study was conducted in the four riparian countries, i.e. Cambodia, Laos, Thailand and Vietnam through intranet and internet facilities of the Mekong River Commission. With the availability of modern communication technologies, it made this computerized Delphi study possible without paper and pencil exercise. Institutions included in this study are the Mekong River Commission Secretariat, Cambodia National Mekong Committee, Lao National Mekong Committee, Thai National Mekong Committee, Vietnam National Mekong Committee and five tributary river basin organizations in Thailand (Kong 1 & Kok, Kong 2, Kong 3, Lower Chi and Lower Moon). The research population are about 500 riparian officials working in the above institutions under the MRC system.

One of the major factors that contributed to the success of this study was the active participation of well-qualified members of panel of experts. This panel of experts were limited to two groups; those who are directly affected, i.e. members of the Mekong River Commission programs and institutions and; those who have applicable specialty and relevant experience in the region. Total number of the panel members was seventy-five (Fifty internal experts and twenty-five external experts).

The research has been designed to study the problem in three rounds: a) round one; using computerized Delphi questionnaire and communication process to find out the extent of importance of each proposed competency and its corresponding behavioral indicators; b) round two; conducting in-depth interview with different stakeholders to gain better understanding of the roles and function of the organization and its required human resource
capacity; and c) the last round; soliciting experts’ reactions and agreements on the results of rounds one and two in regard to the roles and functions of MRC, its required human resource capacity (core competencies) and framework of the modular training program. While the questionnaire emphasized on getting opinion of the experts on the required core competencies, the in-depth interview utilized guided questions to get detailed opinion of selected riparian officials and external experts on functional elements of the organizations, the required core competencies, indicators that define each core competency, working culture, values and norms and learning styles. Knowing learners’ working culture, organization values and learning styles are vital to the development of a modular training program which is the aimed output of this study.

The proponent of this study made use of the following formulas in presenting and analyzing the data: relative frequency distribution, weighted mean, and t-Test. Relative frequency distribution was used in presenting the profile of the respondents. Weighted mean is employed in order to portray the extent of importance of each of the identified competencies for riparian officials. This had also been used in determining the overall extent of perception of the respondents on all the given competencies. The t-Test was used in determining whether or not a significant difference existed between the two groups’ perceptions on the competencies necessary for riparian officials.

Since required human resource capacity of the Mekong River Commission should derive from its functional elements, before presenting the findings in order of which the problems are posted, the roles and functions of this organization are placed as the starting point of these findings.
Roles and Functions of the Mekong River Basin Commission

The researcher began this study by reviewing the MRC history, profile, its vision, mission, and operating structure. This secondary research helped the researcher to have a better understanding of the organization’s culture, core values and required human resource capacity. Comparative studies on the roles and functions of MRC were also made with those of the Murray Darling Basin Commission of Australia, Danube River Basin Commission in Europe and the Nile River Council in Africa.

The study concludes that for the MRC to achieve its mission, all institutions under the MRC system should develop appropriate mechanism and human resource that are capable of fulfilling six major functions of an international river basin organization as listed below.

1. Provision of common area for member states to regularly meet and discuss issues related to their shared water resources.
2. Resolutions of conflicts among member countries
3. Promoting information sharing among various countries and agencies.
4. Developing a coordinated water resource development and management scheme.
5. Securing assistance from donor countries and development aid agencies
6. Sharing of costs and benefits in water resources development and management
Problem 1. What is the profile of research respondents (external and internal respondents) in terms of nationality, gender, educational attainment, level of responsibility and nature of involvement in the development of Mekong River Basin?

A. Nationality

For the external panel of experts, there were two sub-groups, i.e. sixteen national experts from the four riparian countries and nine international experts from six countries. Out of the sixteen riparian experts, there were three Cambodians, five Laos, five Thais and three Vietnamese. The international group of experts was composed of one American, three Australians, one Finnish, two Filipinos, one Irish and one Dutch. All of the experts were/have been involved in the development of Mekong River in the past five years. This demonstrates that there have been many people from different nations, cultures and races involved in the development of Mekong river basin.

The internal experts, selected in consultation with MRC Management, were eleven Cambodians, twenty-four Laos, ten Thais and five Vietnamese. All of them have been involved in developing the Mekong River for more than one year.

B. Gender

The group of external experts was composed of fourteen males and eleven females. This was the intention of the researcher to have more or less equal gender balance in this panel. Gender imbalance came from the internal panel of experts. Out of fifty internal
respondents, only twelve (24 percent) were females. The researcher tried very hard to get more women to participate in this research. However, there were very few women involved in the development of the Mekong River at professional level. Most of female riparian staff at MRC Secretariat and the four NMC Secretariats are support personnel who have no decision making power. The study also found out that despite of the MRC Council approved Gender Policy 2000, little has been done so far to encourage the involvement of women in the development of the Mekong river. While they are the main users of water resources, they are not adequately represented in high-ranking positions and in technical and professional positions.

C. Educational Attainment

The success of this research rests heavily on the diverse expertise brought in by the external experts. Out of the twenty-five external experts, seventeen are masters’ degree holders (72 percent) and eight of them have postgraduates’ degree. Seventeen experts are in Liberal Arts and Humanity related fields while the other eight were in different technical field relevant to the development of the Mekong Basin.

For the fifty internal respondents, thirty-seven (74 percent) have masters’ degree, seven earn postgraduates’ degree and six are college graduates. The internal experts’ education and training backgrounds cover most of the technical areas required in developing the Mekong Basin. This illustrates that majority of the riparian officials involved in the development of Mekong river basin are technically competent. The study also reveals that what help the riparian officials to contribute fully to the basin development is not what the
officials “know”, but what these officials “can do”. It is not what the officials “have” but what they “demonstrate” that contribute to the organization capabilities.

D. Level of Responsibility

Out of twenty-five external experts, thirteen (52 percent) are HRD/Education specialists who have been providing training and consultant services to Mekong related organizations in the four riparian countries. Eight are managers of training and higher education institutions in the region and four are directors or senior managers of national and international organizations.

The internal respondents include five policy makers, nine managers and thirty-six professional and technical staff.

E. Nature of Involvement

For external experts, their involvement with the development of Mekong included policy advising (24 percent), technical assistance (24 percent) and capacity building & HRD (52 percent). Twenty-five internal respondents are riparian staff of the MRCS and another twenty-five are riparian officials working in the four member countries.
Problem 2. What is the extent of importance of each of the following core competencies to the performance of riparian officials involved in developing the Mekong River as expressed by the external and internal experts?

A. Communication

Communication competency refers to an individual’s ability to clearly and convincingly express thoughts, ideas or facts in individual or group situations. There are five basic communication competency categories (Burerkel-Rothfuss 26), i.e. symbolizing, processing, adapting, controlling and expressing. The panel of external experts viewed communication skills as “Very Important” to the performance of the riparian officials especially in three areas: a) ability to clearly and convincingly express thoughts, ideas, or facts in individual or group situations; b) ability to conceptualize what others said and responds appropriately; and c) exercise open, honest and two-way communication. While the internal respondents agreed with the panel of experts on the extent of importance of the behavioral indicator nos. a) and b) as mentioned above, they perceived indicator c) as the least important behavior among all five indicators. This may reflect the riparians’ culture of communication which is characterized by humbleness, reserve, and conflict avoidance.

B. Facilitation

Facilitation competency is the capability of an individual to facilitate communication, sharing information, mediate problem-solving sessions and processes to enable all stakeholders to make decisions for themselves with free and well-informed choices. Both
external and internal panels of experts viewed facilitation as a “Very Important” set of competencies. Both panels also described demonstrated skills and attitude in solving problem as the most important performance indicator for a competent facilitator.

C. Information Literacy

Information literacy is an individual’s ability to recognize when information is needed and to have the ability to locate, evaluate and use effectively the needed information. Both external and internal panels perceived information literacy as a “Very Important” set of competencies with aggregate mean of 3.14 and 3.03 respectively. However, it must be noted that while the external panel viewed the “ability to evaluate information and its source critically” and “ability to summarize the main ideas to be extracted from the information gathered” as the two top most important performance indicators for a riparian official, the internal panel viewed “knowledge of and follow laws, regulations, institutional policies and etiquette related to the access and use of information” as the most importance indicator. This difference in perceptions may illustrate that while majority of external experts may have been exposed to freedom of expression and information overload, the majority of internal respondents have just come out from the communist system, of which information sharing and freedom of expression were limited. History of conflict and war in Indochina may also contribute to the reluctance to share real data among the four countries.
D. Innovation & Proactivity

At individual level, innovation and proactivity include the ability to fulfill responsibilities on time and according to expectations of others, the ability to identify opportunities for improvement and the willingness to complete tasks beyond the scope of initial instructions. Both panels recognized the importance of innovation and proactivity. “Developing needed competencies for different assignments” was considered by the external panel as the most important indicator for this competency. This may reflect the attitude of the external experts toward “culture of competence in the workforce” which requires more than just a specialist but a whole person to take on challenging assignments. While innovation is important, some internal experts felt that it must be within the confined roles and framework of the organization. Too much of creativity and new ideas may cause misunderstanding and conflicts.

E. Cultural Competency

To be culturally competent, one must have ability to show understanding, support, courtesy, tact and cooperation in interactions with peoples from different backgrounds, gender, cultures and social orientations. The external panel of experts perceived cultural competency as the “Critical” ability that all riparian officials must have to enable them to perform effectively in this international arena. Both panels of experts also stressed that it is vital that a riparian official working in the international river basin organization must have the ability to maintain a positive attitude, to tolerate strong emotions, and to cope with ambiguity and stress which often arise in this fast changing environment.
F. Team Skills

Managing team requires a set of skills which cut across several other core competencies; facilitation, teamwork, influence, and creative communication. People who excel in team leadership always want to work through a group and often work behind the scenes to keep their colleagues committed and engaged, so work can proceed as planned. Both external and internal panels perceived team skills as one of the “Very Important” set of competencies that every riparian professional in the MRC system must have. Modern team management goes beyond traditional boundary of team spirit. With modern communication and information technologies, forming a team is no longer limited to being together at the same place at the same time. Nowadays, team members can participate in a working group meeting, a team conference or a working session from any corner of the world through modern communication technologies like internet, video conference, and online team rooms. Therefore, to be a productive virtual team member, one must be able to use modern communication technology, can search and scan needed information and share them with other team members in a timely manner.

Problem 3: Is there a significant difference in the perception of the external and internal experts in the following competencies: Communication, Facilitation, Information Literacy, Innovation & Proactivity, Cultural Competency, and Team Skills?

The t-test was used to determine whether or not a significant difference existed between the perceptions of external panel of experts and the internal panel of experts on the
proposed core competencies. Out of the six sets of competencies, three of them were perceived by both the external and internal panels in the same way. These competencies are Facilitation, Information Literacy and Innovation & Proactivity. However, in regard to Communication, Cultural Competency and Team Skills, the two groups of experts showed a significant difference in their perspectives. This demonstrates that the external panel of experts placed more value to these three core competencies than the internal panel of experts. For example, while the external panel of experts viewed “exercising open, honest and two-way communication” as the highest important behavioral indicator for a riparian official, the internal panel of experts perceived this indicator as the least important behavior among all five indicators of Communication competency.

Overall, the study shows that there is a significant difference between the perception of internal experts and external experts in the core competencies. Different working cultures, exposures, and values might have been the main reasons behind this difference. It is with great interest to reveal that the external panel of experts placed more value to every one of the performance competencies than the participating riparian officials.

Emerging Competencies in Integrated River Basin Management

In the beginning, the researcher assumed that the knowledge, skills and ability in integrated river basin planning and management were technical competencies which were outside the scope of this study. However, during the Delphi process, the overwhelming majority of the experts expressed that IRBM should be placed at the center of core
competencies for people of a river basin organization. Other performance competencies help to ensure that the riparian officials can apply these IRBM in their works. Many also argued that this set of IRBM skills is not technical. It provides holistic view and approach to the management of international river basin which cut across six nations. These basic functional competencies have been clustered into three sets: a) Strategic Planning and Management, b) Program Management and Logical Framework, and c) Integrated River Basin Planning.

CONCLUSIONS

Based on the findings, the following conclusions are drawn:

1. The role of Mekong River Commission has been changed significantly after the signing of 1995 Mekong Agreement. The organization’s role has been transformed from the “Dam Builder” and river resources explorer to a more transnational and development-oriented organization. To implement these changes successfully the capacity of human resources to initiate, implement, and absorb change is the most critical.

2. The Mekong River Basin planning and management are still male predominant at all three levels (Provincial, National and Regional). While women are the main users of the river basin resources, especially in family and community levels, very few women are in the decision making level. Majority of the female riparian officials working at the MRC headquarters and the four National Mekong Committees are in support functions.

3. Majority of the riparian officials involved in the development of the Mekong river basin are technically well qualified. Majority of the professional staff at national and regional
level are Masters’ degree holders in related fields needed for planning and managing river basin resources. Therefore, it is not the lack of technical competence that limit their performance.

4. All proposed core competencies – Communication, Facilitation, Information Literacy, Innovation & Proactivity, Cultural Competency, and Team Skills – are perceived by both internal and external panels of experts as “Very Important”. This means that every riparian professional must demonstrate his/her knowledge, skills, and abilities in accordance with the stated performance standards (behavioral indicators) of each competency. To have a superior performance in this transnational setting, a riparian official must become a master facilitator, with great information management and communication skills, who can lead a virtual team of diverse cultures, and is capable of utilizing world class information technology and sound decision support framework.

5. While both panels of experts viewed all six core competencies as “Very Important”, there is a significant difference in their perceptions of Communication, Cultural Competency and Team Skills. The external panel of experts gave greater value to the three sets of competencies than the internal panel.

6. Integrated River Basin Management (IRBM) has emerged during the course of study as one of the most important set of competencies which must be demonstrated by every riparian professional.
RECOMMENDATIONS

Base on the findings and conclusions, the researcher would like to make the following recommendations and state major implications of this study.

1. Capitalizing on Core River Basin Competencies

As illustrated throughout this study, there is a very strong linkage between the organization’s competency and human resource capacity. Organizational capabilities emerge when an organization delivers on the combined competencies and abilities of its individuals. An employee may be technically literate, but the company as a whole may or may not embody the same strengths. Vice versa, the organization may be mandated and fully supported to provide high quality of services, but without competent human resource, its capabilities will be below par.

MRC as an organization is a living organism characterized by its people, not its structure. It cannot be assumed that, through building a structure, through fixing a procedure and through mechanizing a process, a viable organization will emerge and its capabilities will increase. It is the people, not the structure that move the organization forward. All aspects of organizational development rely heavily on the competence of its staff: capable staff to develop policy and legal frameworks, quality staff to manage and develop the necessary institutions, and competent staff to plan and manage various development and conservation activities in the basin.

The results of this study illustrate clearly that every member of MRC organization should have both functional competencies and performance competencies. These
performance competencies enable the member to turn his/her technical know-how into results. The researcher therefore recommend that an international organization like MRC, capitalizes its human resource capabilities by using the identified competencies to serve in various aspects of organizational development, especially as the benchmark of human resource competence. These sets of competencies and behavioral indicators aid to assuring that the workforce, key to MRC infrastructure, is truly competent to perform essential services in all areas of river basin planning and management.

2. Mainstreaming Gender into every component of Mekong development.

The fundamental basis of the 1995 Agreement is to improve the social and economic well-being of all peoples in the basin. To move toward sustainable development of the Lower Mekong Basin, gender concerns have to be incorporated in all the MRC programs, projects, and activities, especially those programs which have direct impact to the people. As recognized globally that though women play a central part in the provision, management and safeguarding of water, this pivotal role of women as providers and users of water and guardians of the living environment has seldom been reflected in institutional arrangements for the development and management of water resources.

The study recommends that the MRC incorporate gender perspectives in the organization development and management systems. This can be done by

a. establishing the MRC Gender Steering Committee and facilitating a series of working sessions for the Committee members to review the administrative
procedures and processes if they have incorporated gender approach and identify those which need to be changed/modified.

b. modifying the existing procedures and processes to be more gender responsive or establish new gender responsive procedures. Those which need consideration include the recruitment and appointment practices which target at increased opportunities for women; and

c. conducting a series of gender training sessions to the MRC & NMC professional staff and all of the MRC project implementing agencies’ core personnel (including line agencies and provincial staff involved in the works of the MRC) in gender planning, gender analysis, gender policy appraisal and impact assessment.

Organization culture, values, and paternalistic structure of riparian society should be taken into consideration in designing and implementing gender mainstreaming program in the Mekong basin. Several failed gender promotion projects in the past were due to the insensitivity of implementers who tried to change the roles of family and community members using foreign models.

3. Repackaging the core competencies into two interrelated clusters to serve as bases for developing training modules.

The study found that while all core competencies are very important to the performance of riparian officials, they are all interrelated and interdependent. At the final deliberation on these competencies, both panels agreed with the researcher’s
recommendation to regroup the core competencies and their corresponding skills, knowledge and ability into two major clusters as follows:

1. Integrated River Basin Planning and Management Knowledge and Skills

   1.1 Strategic Planning and Management

      1.1.1 Articulating an organization vision, mission and values

      1.1.2 Situation analysis

      1.1.3 SWOT analysis

      1.1.4 Formulating core strategies

      1.1.5 Setting organization’s strategic goals and objectives

      1.1.6 Operationalizing strategic plan

   1.2 Program Cycle Management and Logical Framework

      1.2.1 Goals Oriented Program Planning (GOPP)

      1.2.2 Program design and formulation

      1.2.3 Logical Framework

      1.2.4 Project proposal formulation

      1.2.5 Workplan and budget formulation

      1.2.6 Project mobilization, coordination and services

      1.2.7 Using computerized project management tools

      1.2.8 Project monitoring, reporting and evaluation.
1.3 Integrated River Basin Planning

1.3.1 Importance of basin planning to the sustainable development of the Mekong River basin

1.3.2 Major issues in the planning of Mekong River basin development

1.3.3 The principles and practices of good basin planning

1.3.4 Application of the principles and practices of good basin planning

1.3.5 The role of basin planners

1.3.6 Mission, roles and functions of MRC in the sustainable development of the Mekong River basin

1.3.7 MRC role in the planning and management of Integrated Mekong River Basin Development Plan and available management support tools.

2. Performance Competencies

2.1 Facilitation Capabilities

2.1.1 Communication Skills

2.1.2 Facilitation Capability

2.1.3 Networking and Strategic Alliance

2.1.4 Cultural and Political Capability

2.1.5 Team Skills

2.1.6 Planning and Organizing

2.2 Information Management Capabilities:

2.2.1 Action Research
2.2.2 Information Analysis

2.2.3 Information Generation

2.2.4 Information Technologies

2.2.5 MRC Information System

Specific knowledge, skills and ability associated with each of the above competencies are elaborated in the MRC Skill Assessment Form (Appendix B 3).

4. Use MRC Skill Assessment Form as a Management Tool.

The skill assessment form developed during the course of this study as shown in the Appendix 8 should be used as a human resource management tool by every institution under the MRC system. It is composed of key competencies and specific skills that have been carefully selected and agreed upon during the Delphi process. This tool may serve in various aspects of HR and organizational development. For training purposes, it can be used in quality management and review of standards; in applying standards to curriculum and resource development; in the development and implementation of assessment; and in recognition of prior learning and current competence. For human resource management, it can be used in career guidance and career management; in staff selection; and in making valuable benchmarks across occupation in employment related areas. Above all, these sets of competencies can be used as measuring stones toward culture of competence in the workforce. Competence of modern workforce means that the organization’s human resource has the basic knowledge, skills, abilities, and attitudes that allow for delivery of essential
services in global and transnational environments, in a way that is culturally competent and effective.

5. Localizing IRBM Training Curriculum and Materials

Towards the end of this study, the researcher has developed three training courses aimed to equipped riparian officials with the agreed set of competencies. The first two courses, a) Strategic Planning and Management, and b) Program Cycle Management and Logical Framework were developed with financial and technical support from the Human Resource Development Division of MRC Secretariat. The third course, “Integrated River Basin Planning” was developed with financial support and technical assistance from the Australian’s Murray Darling Basin Commission (MDBC). Inputs and case studies related to transboundary issues, development opportunities and scenarios were provided by members of MRC Basin Development Planning Unit, Dr. Kanokwan Manorom of University of Ubol Rajchathani, Thailand and Ms Fiona Lynn of the MDBC.

Though the three standard training courses were developed and tested with significant involvement and contributions of MRC stakeholders, they are considered working documents which need on-going refinement and modification to suit the needs, absorbing capacities and readiness levels of particular audiences. Before they can be used at the national and tributary river basin levels, the researcher recommends that the MRC takes initiative in further refining and localizing the training program. This can be done by a) field testing the training courses at provincial and national levels; b) conducting Training of Trainer (TOT) workshop for national trainers on how to use this training manual; c) translating the curriculum and training materials into riparian languages and modify case
studies and handouts as necessary; and d) providing technical and financial support for the national trainers to provide a series of training at their localities. The MRC Secretariat should also disseminate the training manuals (in English and in the respective languages) to all academic and training institutions in the Mekong Basin, especially to those training institutions that have potential to replicate the training program. This will help create critical masses in the IRBM.

6. Using Delphi Method in Competency Development

Delphi Method is a powerful research tool in soliciting experts’ opinions in newly-emerged fields like the functional and performance competencies for the riparian officials of the MRC system which have not been thoroughly studied before. With the availability of modern communication and Internet facilities, paper and pencil exercise as well as physical presence can be avoided. Using computerized Delphi process allows all panel members to make comments and suggestions as well as interact with the researcher at any given time. By creating a wall room, specifically for this study, panel members can drop comments or ask questions at their convenience.

The following points and lesson learned may serve as recommendations for those who wish to conduct researches using the Delphi method.

a) The process takes time and a lot of effort on the part of the experts. This process composed of three rounds of answering questions and deliberations on the issues. This could put a burden on the part of the experts, most of whom were full-time professionals. Constant communication and motivation should be done to keep
the participants’ interests and willingness to continue to participate in the process.

b) While computerized Delphi process is convenient on the part of the respondents, many experts failed to respond to the questionnaire or give feedback and comments during the given period. The researcher had to constantly follow up and nag several panel members to complete their tasks. Without good communication facilities and support from sponsoring organization, it would be very difficult to complete the process on time.

c) Having the ability to attract qualified panel of experts is probably the key behind the success of this Delphi study. Connections, influences and mutual benefits play vital roles in getting highly qualified and credible experts to participate in this research. The researcher would not recommend this computerized Delphi process for those who want to conduct study in new areas of which the investigators do not have expertise in or ability to acquire participation of subject experts.

**Further Research on Core Competencies**

The functional and performance competencies emerging from this study are limited to the standard and essential knowledge, skills, and abilities that are considered important for all riparian officials in the development and management of an international river basin organization. They are not technical or specialized competencies but a set of basic requirements that apply to all river basin professionals. While the basic functional
competencies are river basin organization specific, the performance competencies identified in this study can apply to all personnel of international organizations or multinational corporations. It is highly recommended that further in-depth study be conducted on the proficiency levels of each performance competency that are required by different positions in the organization as well as specific skills, knowledge and abilities required by different elements of an international organization.
A. BOOKS


de Bono, Edward. Teach Your Child How to Think. London: BBC Books, 1985


B. DOCUMENTS

Board of Directors of the Association of College and Research Libraries. The Information Literacy Competency Standards for Higher Education, 2000


C. ARTICLES IN PERIODICALS


Karpin, D. “In search of leaders.” *HR. Monthly*, Sydney (June 1995)


D. ELECTRONIC JOURNALS AND DOCUMENTS


Clairmont, Bonnie. Cultural Competency. Sexual Offense Services of Ramsey County, Reprinted with permission of the Minnesota Coalition Against Sexual Assault, 2002. 4 pp. Online. Internet. 01 Jul 2004

Davenport, Thomas H. “Knowledge Management at Microsoft.” A Case Study of The Graduate School of Business, University of Texas at Austin. 1998 Online. Internet. 01 Jul 2004


Nakayama, M. Need of functioning mechanisms for better management. An Article on International River Basin Organizations, United Graduate School of Agricultural Science, Tokyo University of Agriculture and Technology 2002: 6 pp. Online. Internet. 04 Jul 2002

RMCP. Communication Competency for Modern Workforce: n. pag. Online. Internet 30 June 2004

APPENDICES
Mr. Dao Trong Tu  
Officer-in-Charge  
Mekong River Commission Secretariat  
P.O. Box 6101, Vientiane, Lao PDR

Dear Sir,

I am a post-graduate student of Silliman University presently undertaking my dissertation as part of the requirements for the degree of Doctor of Education. The research study is entitled: *Core Competencies for Riparian Officials in Developing Mekong River: A Delphi Study Toward a Modular Training Program.*

The purpose of this study is to identify knowledge, skills, and abilities which are considered essential for the riparian officials in the development and management of the Mekong River basin. These core competencies, once identified and validated by both internal and external experts, will be used as the bases for developing indicative training modules. These competencies and performance standards will also provide a framework for learning objectives on which curriculum and training can be further developed and delivered internally by national institutions involved in harnessing the Mekong River or by external training institutions.

In this connection, I would like to request your kind permission to conduct secondary research at the MRC Document Center and get inputs and comments from some of your officials through questionnaire. Since I had worked with the Mekong River Commission and know most of the respondents personally, upon receiving your permission, I will contact concerned officials directly to complete the research questionnaire, tentatively in August 2004.

Thank you very much for your support and cooperation in this research endeavour. I am looking forward to hearing from you.

Very sincerely,

SUCHAT KATIMA  
Doctor of Education Candidate

Noted and Endorsed by:

DR. BETSY JOY TAN  
Advisor

DR. PABLITO DE LA RAMA  
Chairperson, Dissertation Committee
July 9, 2004

Director General
Lao National Mekong Committee
Prime Minister’s Office, Vientiane, Lao PDR
Email: boriboun.lnmc@laonet.net
Tel: 856-21-260-981-3

Dear Mr. Boriboun,

I am a post-graduate student of Silliman University presently undertaking my dissertation as part of the requirements for the degree of Doctor of Education. The research study is entitled: Core Competencies for Riparian Officials in Developing Mekong River: A Delphi Study Toward a Modular Training Program.

The purpose of this study is to identify knowledge, skills, and abilities which are considered essential for the riparian officials in the development and management of the Mekong River basin. These core competencies, once identified and validated by both internal and external experts, will be used as the bases for developing indicative training modules. These competencies and performance standards will also provide a framework for learning objectives on which curriculum and training can be further developed and delivered internally by national institutions involved in harnessing the Mekong River or by external training institutions.

In this connection, I would like to request your kind permission to conduct secondary research at the LNMC Document Center and get inputs and comments from some of your officials through questionnaire. Since I had worked with the Mekong River Commission and know most of the respondents personally, upon receiving your permission, I will contact concerned officials directly to complete the research questionnaire, tentatively in August 2004.

Thank you very much for your support and cooperation to this research endeavour.

Very sincerely,

SUCHAT KATIMA
Doctor of Education Candidate

Noted and Endorsed by:

DR. BETSY JOY TAN
Advisor

DR. PABLITO DE LA RAMA
Chairperson, Dissertation Committee
H.E. Sin Niny  
Member of MRC Joint Committee for Cambodia,  
Cambodian National Mekong Committee  
23 Mao Tse Tung Boulevard  
Phnom Penh, Cambodia  
Tel: (855) 23 – 218 727 Email: cnmcs@cnmc.gov.kh

His Excellency,

I am a post-graduate student of Silliman University presently undertaking my dissertation as part of the requirements for the degree of Doctor of Education. The research study is entitled: *Core Competencies for Riparian Officials in Developing Mekong River: A Delphi Study Toward a Modular Training Program*.

The purpose of this study is to identify knowledge, skills, and abilities which are considered essential for the riparian officials in the development and management of the Mekong River basin. These core competencies, once identified and validated by both internal and external experts, will be used as the bases for developing indicative training modules. These competencies and performance standards will also provide a framework for learning objectives on which curriculum and training can be further developed and delivered internally by national institutions involved in harnessing the Mekong River or by external training institutions.

In this connection, I would like to request your kind permission to conduct secondary research at the CNMC Document Center and get inputs and comments from some of your officials through questionnaire. Since I had worked with the Mekong River Commission and know most of the respondents personally, upon receiving your permission, I will contact concerned officials directly to complete the research questionnaire, tentatively in mid July 2004.

Thank you very much for your support and cooperation to this research endeavour. I am looking forward to hearing from you.

His Excellency, I remain.

SUCHAT KATIMA  
Doctor of Education Candidate

Noted and Endorsed by:

DR. BETSY JOY TAN  
Advisor

DR. PABLITO DE LA RAMA  
Chairperson, Dissertation Committee
July 9, 2004

Director General,
Thai National Mekong Committee
Ministry of Natural Resources and Environment
3/12 U-Thong Nok Rd., Dusit, Bangkok
Thailand
Tel: (662) 243-0036.

Dear Sir,

I am a post-graduate student of Silliman University presently undertaking my dissertation as part of the requirements for the degree of Doctor of Education. The research study is entitled: Core Competencies for Riparian Officials in Developing Mekong River: A Delphi Study Toward a Modular Training Program.

The purpose of this study is to identify knowledge, skills, and abilities which are considered essential for the riparian officials in the development and management of the Mekong River basin. These core competencies, once identified and validated by both internal and external experts, will be used as the bases for developing indicative training modules. These competencies and performance standards will also provide a framework for learning objectives on which curriculum and training can be further developed and delivered internally by national institutions involved in harnessing the Mekong River or by external training institutions.

In this connection, I would like to request your kind permission to conduct secondary research at the TNMC Document Center and get inputs and comments from some of your officials through questionnaire. Since I had worked with the Mekong River Commission and know most of the respondents personally, upon receiving your permission, I will contact concerned officials directly to complete the research questionnaire, tentatively in mid July 2004.

Thank you very much for your support and cooperation to this research endeavour.

Very sincerely,

SUCHAT KATIMA
Doctor of Education Candidate

Noted and Endorsed by:

DR. BETSY JOY TAN               DR. PABLITO DE LA RAMA
Advisor                        Chairperson, Dissertation Committee
July 9, 2004

Mr. Nguyen Hong Toan
Secretary General
Vietnam National Mekong Committee
23 Hang Tre, Hanoi, Vietnam
e-mail: vnmc@hn.vnn.vn
Tel: (84) 4825-4785

Dear Mr. Toan,

I am a post-graduate student of Silliman University presently undertaking my dissertation as part of
the requirements for the degree of Doctor of Education. The research study is entitled: Core
Competencies for Riparian Officials in Developing Mekong River: A Delphi Study Toward a
Modular Training Program.

The purpose of this study is to identify knowledge, skills, and abilities which are considered essential
for the riparian officials in the development and management of the Mekong River basin. These core
competencies, once identified and validated by both internal and external experts, will be used as the
bases for developing indicative training modules. These competencies and performance standards
will also provide a framework for learning objectives on which curriculum and training can be further
developed and delivered internally by national institutions involved in harnessing the Mekong River
or by external training institutions.

In this connection, I would like to request your kind permission to conduct secondary research at the
VNMC Document Center and get inputs and comments from some of your officials through
questionnaire. Since I had worked with the Mekong River Commission and know most of the
respondents personally, upon receiving your permission, I will contact concerned officials directly to
complete the research questionnaire, tentatively in August 2004.

Thank you very much for your support and cooperation to this research endeavour.

Very sincerely,

SUCHAT KATIMA
Doctor of Education Candidate

Noted and Endorsed by:

DR. BETSY JOY TAN
Advisor

DR. PABLITO DE LA RAMA
Chairperson, Dissertation Committee
July 17, 2004

Name
Address

Subject: Invitation to the Panel of Experts on “Core Competencies for Riparian Officials in Developing Mekong River: A Delphi Study”

Dear

I am a post-graduate student of Silliman University presently undertaking my dissertation as part of the requirements for the degree of Doctor of Education. The research study is entitled: Core Competencies for Riparian Officials in Developing Mekong River: A Delphi Study Toward a Modular Training Program. You have been selected to participate in this Delphi Study because of your applicable specialty and relevant experience with the work of Mekong River Commission.

The purpose of this study is to identify knowledge, skills and abilities which are essential for the riparian officials involved in the development and management of the Mekong River basin in the next ten years. These core competencies, once identified and validated by both internal and external experts, will provide a framework for learning objectives on which curriculum and training can be further developed and delivered internally or by external training institutions.

The Delphi Study process is essentially an interactive communication structure between the researcher and a group of ‘experts’ in Mekong Cooperation in order to develop themes, needs, and directions about required competencies. There will be three rounds of deliberations. You will be requested to complete a questionnaire for each round and the inputs and suggestions gathered from all the experts are then analyzed, integrated and send back to you with further questions. Anonymity will be strictly observed throughout the process.

There are two groups of the panel of experts: a) internal experts – fifty riparian professionals from the four MRC member countries, and b) external experts – twenty-five national and regional professionals from different fields of specialization. Each panel member will be given full report on the results of each round of the Delphi’s.

Thank you very much for your support and cooperation in this research endeavor. I am looking forward to your contribution to this study.

Very sincerely,

Suchat Katima
Researcher
ROUND ONE
COMPUTER MEDIATED DELPHI'S QUESTIONNAIRE

The competencies listed below are the complex combination of knowledge, skills, and abilities that are critical to the effective and efficient function of the organization.

1. On a scale of 1 to 4 (with 4 as the highest and 1 as the lowest) please determine the extent of importance of each competency indicator to the performance of riparian officials working with the Mekong River Commission System in the next ten years.

2. Please write down other competencies and or indicators that you think will be important to the performance of the riparian officials in the next ten years which have not been included in this initial list.

Legend: 4- Critical; 3 – Very Important; 2 - Important; 1 – Less Important; and NA – Not Applicable.
<table>
<thead>
<tr>
<th>Competencies and Indicators</th>
<th>Extent of Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>1</td>
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</tbody>
</table>

**Communication** (oral and written) *Written and oral ability to clearly and convincingly express thoughts, ideas or facts in individual or group situations.*

1. Presents issues and information, in his/her native language and in English, orally and in writing, in a compelling, clear and credible manner.

2. Listens to others, correctly interprets messages from others and responds appropriately.

3. Tailors communication to intended audience and uses appropriate tools and strategies (tone, format, style, etc.) to convey information.

4. Exercises open, honest, and bilateral communication and projects a professional image.

5. Uses appropriate verbal and non-verbal symbols in communication.

6.

7.

8.
### Competencies and Indicators

<table>
<thead>
<tr>
<th>Competencies and Indicators</th>
<th>Extent of Importance</th>
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</table>

**Information Literacy.** *Ability to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.*

- a. Can define and articulate the nature and extent of the information needed.

- b. Can locate, select the most appropriate investigative methods to extract, record and manage the information and its sources.

- c. Can evaluate information and its sources critically

- d. Can summarize the main ideas to be extracted from the information gathered.

- e. Can use information effectively to accomplish a specific purpose (e.g. Can write required reports and disseminate information in English, can present ideas, concept, findings clearly in the working group and public.)

- f. Has knowledge of and follow laws, regulations, institutional policies and etiquette related to the access and use of information.

- g. 

- h. 

- i. 
<table>
<thead>
<tr>
<th>Competencies and Indicators</th>
<th>Extent of Importance</th>
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<tbody>
<tr>
<td><strong>Facilitation. Ability to plan, coordinate, and facilitate conflict resolutions, working sessions, official meetings, and regional gatherings.</strong></td>
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</tr>
<tr>
<td>1. Can design, plan, coordinate, and facilitate official functions and public forum</td>
<td>1 2 3 4 NA</td>
</tr>
<tr>
<td>2. Has knowledge of official protocols and regulations in regard to official visits, press release and public information</td>
<td>1 2 3 4 NA</td>
</tr>
<tr>
<td>3. Can conduct stakeholder analysis and facilitate the participation of stakeholders at national and regional levels. (Can use participatory process tools, methods of communication and methods of involving the stakeholders in decision-making. e.g. PRA, OOPP., referendum and public opinion survey.)</td>
<td>1 2 3 4 NA</td>
</tr>
<tr>
<td>4. Can facilitate participatory planning process, public forum and community participation.</td>
<td>1 2 3 4 NA</td>
</tr>
<tr>
<td>5. Can demonstrate key collaborative problem solving skills and attitudes (Develops and analyzes options, objectivity, confidentiality, neutrality, respect for difference, and honesty).</td>
<td>1 2 3 4 NA</td>
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<td>6.</td>
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<td>7.</td>
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<td>8.</td>
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<tr>
<td>Competencies and Indicators</td>
<td>Extent of Importance</td>
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<td>-------------------------------------------------------------------------------------------</td>
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<tr>
<td><strong>Innovation/Proactivity. Ability to fulfill responsibilities on time and according to expectations of others (superiors and peers); includes identification of opportunities for improvement and willingness to complete tasks beyond the scope of initial instructions</strong></td>
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</tr>
<tr>
<td>1. Actively seeks to improve programs or services.</td>
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<tr>
<td>2. Offers new and different options to solve problems or meet clients needs.</td>
<td>□ □ □ □ □</td>
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<tr>
<td>3. Communicates new ideas, directions and goals to others in positive and credible manners.</td>
<td>□ □ □ □ □</td>
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<tr>
<td>4. Takes calculated risks on new and unusual ideas: thinks “outside the box.”</td>
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<tr>
<td>5. Takes an interest in new ideas and new ways of doing things</td>
<td>□ □ □ □ □</td>
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<tr>
<td>6. Is flexible with work assignments and demonstrate willingness to accept new responsibilities</td>
<td>□ □ □ □ □</td>
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<tr>
<td>7. Develops needed competencies for different assignments</td>
<td>□ □ □ □ □</td>
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<td>9.</td>
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<td>10.</td>
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</table>
### Cultural Competency:  
*The ability to show understanding, support, courtesy, tact and cooperation in interactions with peoples from different backgrounds, gender, cultures, etc.*

<table>
<thead>
<tr>
<th>Competencies and Indicators</th>
<th>Extent of Importance</th>
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<tbody>
<tr>
<td></td>
<td>1 2 3 4 NA</td>
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<tr>
<td>1. Awareness and acceptance of the wide range of cultural diversity (Be aware of differences in values, communication styles, spirituality, definitions of family AND be accepting of those differences.);</td>
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<tr>
<td>2. Examines own biases and behaviors to avoid stereotypical responses (Understanding how cultural conditioning influences our beliefs about human behavior, values, communication, biases, etc. and how they affect people from other cultures);</td>
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<tr>
<td>3. Treats men and women equally</td>
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<tr>
<td>4. Shows awareness of one’s own cultural values and identity</td>
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<tr>
<td>5. Works effectively with people from all backgrounds</td>
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<td>6.</td>
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<td>7.</td>
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<td>8.</td>
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<tr>
<td>Competencies and Indicators</td>
<td>Extent of Importance</td>
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<tr>
<td>-----------------------------</td>
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<td></td>
<td>1</td>
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<tr>
<td><strong>Team Skills:</strong></td>
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<tr>
<td>6. Has a multi-disciplinary team approach in every stage of program planning and coordination, and to continually explore ways to enhance and improve cross discipline integration.</td>
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<tr>
<td>7. Works collaboratively with colleagues to achieve the organizational goals and willing to learn from each other.</td>
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<tr>
<td>8. Shows respect for and understanding of diverse points of view and demonstrates this understanding in daily work and decision-making</td>
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<tr>
<td>9. Supports and acts in accordance with final group decision, even when such decisions may not entirely reflect own position</td>
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<td>10. Shares credit for team accomplishments and accepts joint responsibility for team shortcomings</td>
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<td>11.</td>
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<td>12.</td>
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<td>13.</td>
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<tr>
<td><strong>Others:</strong></td>
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</table>
Appendix B 2

Guided Questions

4. What are the roles and functions of an international river basin organization like the Mekong River Commission?

5. What core competencies are needed by the organization human resources to fulfill the expected roles and functions of the river basin organization?

6. What are the indicators that define each core competency?

7. What are the specific knowledge, skills and abilities (KSA’s) which must be learned to bring about each competency?

8. How do these KSA’s fit into a comprehensive curriculum or set of courses?

9. What are the most effective educational strategies and training methods for the staff to learn each identified KSA?
**MRC COMPETENCY ASSESSMENT FORM**

The following competencies and set of skills, knowledge and abilities are considered essentials for riparian officials involved in the development and management of the Mekong River Basin as the results of the Delphi study conducted during July 15 to October 15, 2004. The study was conducted by MR. Suchat Katima, Candidate for Doctor of Education, Silliman University, the Philippines.

**Legend: 1 – None/Minimum, 2 – Understand, 3 – Practice, 4 Practice and Teach**

<table>
<thead>
<tr>
<th>Competencies</th>
<th>Basic Skills</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
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<tbody>
<tr>
<td>Communication</td>
<td>English Proficiency</td>
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<td>Presentation, Facilitative Speaking</td>
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<td></td>
<td>Use modern communication technology</td>
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<td></td>
<td>Conflict resolution and prevention</td>
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<tr>
<td>Knowledge Transfer Skills</td>
<td>Participatory Learning Principles</td>
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<tr>
<td></td>
<td>Conducting Technical Presentation to non-technical audience</td>
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<td></td>
<td>Coaching and on-the-job training</td>
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<td></td>
<td>Conducting consultative sessions</td>
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<tr>
<td>Planning and Organizing</td>
<td>Setting Agenda (for official meetings, workshop, forum, working sessions)</td>
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<td></td>
<td>Planning official functions</td>
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<tr>
<td></td>
<td>Organizing and coordinating official functions</td>
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<td>Official protocols</td>
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<td>Logistics and Admin support for official functions</td>
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<td>Public participation process</td>
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<tr>
<td>Stakeholder Analysis</td>
<td>Team Skills</td>
<td>Team Formulation</td>
<td>Working group process</td>
<td>Visual team coordination</td>
<td>Conflict management and resolution</td>
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<tr>
<td></td>
<td>Networking Ability</td>
<td>Establishing and maintaining contacts</td>
<td>Public Relations and Fund Raising</td>
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<tr>
<td>Cultural Competency</td>
<td>Applied Research</td>
<td>Research Design</td>
<td>Field Survey</td>
<td>Community Participation</td>
<td>Treatment of data</td>
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<td></td>
<td>Information Analysis</td>
<td>Information scanning, note taking</td>
<td>Review and extract data</td>
<td>Analysing and validating information and sources</td>
<td>Use of knowledge and information</td>
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<tr>
<td></td>
<td>Information Generation</td>
<td>Information packaging and integration</td>
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<tr>
<td>Integrated River Basin Planning and Management</td>
<td>Information Technologies</td>
<td>Strategic Planning and Management</td>
<td>Project Cycle Management and Logical Framework</td>
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<tr>
<td>Presentation of reports/findings</td>
<td>Internet/Intranet and online information system</td>
<td>Stakeholder Analysis</td>
<td>Goal Oriented Program Planning Process</td>
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<tr>
<td>Write briefing papers and summary for decision makers</td>
<td>Electronic filing and sharing systems</td>
<td>SWOT Analysis</td>
<td>Program design and formulation</td>
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<tr>
<td>Share knowledge and information</td>
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<td>Situation Analysis</td>
<td>Feasibility study</td>
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<tr>
<td>Rules and regulations on information generation</td>
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<td>Formulating Strategic Goals and Strategies</td>
<td>Logical Framework</td>
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<td>Proposal writing</td>
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<td>Workplan formulation</td>
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<td>Project/program coordination</td>
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<td>Project launching and operating structure</td>
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<td>Budget and financial management</td>
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<td>Using Computerized Project Management Tools</td>
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<td>Integrated River Basin Planning</td>
<td>Program monitoring and reporting and evaluation</td>
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<td>Importance of Basin Planning to the sustainable development of Mekong river basin</td>
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<td>Major Issues in the Planning of Mekong River Basin Development</td>
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<td>The Principles and Practices of Good Basin Planning</td>
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<td>The role of Basin Planners</td>
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<td>Management support Tools</td>
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<td>Mission, roles and functions of MRC in the planning and management of Integrated Mekong River Basin Development</td>
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| Others                          |                                             |

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INTEGRATED RIVER BASIN PLANNING
TRAINING MANUAL
Integrated River Basin Planning
Training Package

Background

To institutionalize the basin planning process in MRC institutions, it is important that a sustainable number of planners and technical specialists, both at the MRCS and at the four riparian countries, are capable of all the competencies needed for formulating and producing the various Basin Development Planning Programme (BDP) outputs. With this objective, the knowledge and capacity building process has been integrated into the BDP process since the beginning and are being carried out throughout the project life in parallel with the planning process and public participation.

As part of a Murray-Darling Basin Commission (MDBC) & Mekong River Commission Strategic Liaison Programme, a “Basin Planning Training Programme” was implemented in 2003 by providing a series of training and application opportunities to the MRC BDP team (MRC Secretariat and the four National BDP offices) in the field of Integrated River Basin Planning. To assist MRC BDP team to replicate the IRBP training modules at the national and sub-area levels, it is vital that a training package be reformulated into a simple and focused package.

A team of curriculum developers was commissioned by the MRC in October 2004 to consolidate various training plan and materials into a complete IRBP training manual. The team composed of Mr. Suchat Katima, team leader and integrated curriculum expert, Ms Fiona Lynn, river basin planning expert from MDBC, Australia, and Dr. Kanokwan Manorom, local expert from Ubon Rachathani University, Thailand.

How to use IRBP Training Package

This training package is divided into two parts:

Part I: IRBP Course Overview. This part provides the trainers with the course overall objective, target groups and course objectives for each target group, overview of each training module and training strategies. This course has seven interrelated modules. Each module has been formulated using integrated curriculum development approach.

Part II. IRBP Modules: The training modules are packaged into two versions:
1. Executive IRBP Orientation Package for Decision Makers. This package is designed to assist a trainer to provide orientation to decision makers in the form of “Consultative Meeting” session to be completed within six hours.

2. IRBP Training Package for River Basin Planners and Practitioners. This is a complete integrated river basin planning training curriculum to be delivered in seven days (inclusive of one day field trip).

The eight modules are:

1. Setting the context of IRBP training
2. The Importance of IRBP to the Sustainable Development of the Mekong River Basin
4. Principles of good basin planning
5. Applying the principles in the Mekong River Basin
6. The Role of Basin Planners
7. The Role of Mekong River Commission in Developing and Harnessing Mekong River Basin Resources
8. The Role of Mekong River Commission in Developing Mekong River Basin Development Plan and Available Decision Support Frameworks and Tools

Each module contains the following training materials:

1. Training Session Guide. This training session guide provides a trainer with objective and scope of the module, training session process, list of figures and references. This session guide assists a trainer in facilitating the training session.
2. Handouts. Each major topic/issue is supported by reading materials and/or points for further discussion.
3. Power Points presentations.

Each training package is also available in electronic files (CD ROM) which contain all the materials in the package plus references and maps. It is highly advisable that river basin planning trainers first learn to utilize this electronic training package so that the training course can be delivered with fewer hassles.
I. IRBP COURSE OVERVIEW

Objective: To improve integrated river basin planning knowledge and skills of members of river basin organizations of the four riparian countries involved in Mekong River Basin Development Plan.

1. Target Trainees

<table>
<thead>
<tr>
<th>Level (L) 1</th>
<th>Overview of IRBC</th>
</tr>
</thead>
<tbody>
<tr>
<td>High level policy makers with short period of time available to attend the course (1 day course) – might include BDP sub-committee, river basin organization chairs, Provincial Governors and Deputies</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level (L) 2</th>
<th>Technical Overview and Detailed Info.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planners and managers from Government agencies, river basin organizations, non-government organizations, University students seeking a more detailed understanding of the issues, MRC professional staff and junior riparian staff (7 day course including 1 day field trip)</td>
<td></td>
</tr>
</tbody>
</table>

2. Course Objectives

| L 1 | • To understand and appreciate why basin planning is important for the sustainable development of the shared resources of the Mekong River Basin  |
|     | • To understand the major issues in basin planning for the Mekong River Basin |
|     | • To understand the principles and practices of good basin planning |
|     | • To gain an understanding of the roles and functions of the Mekong River Commission in the planning and management of the shared resources of the Mekong River Basin |

| L 2 | • To demonstrate understanding of the importance of basin-wide planning to the sustainable development of the shared resources of the Mekong River Basin |
|     | • To identify the major issues in basin planning for the Mekong River Basin |
|     | • To demonstrate knowledge of the principles and practices of good basin planning and demonstrate ability to apply those principles to the Mekong River basin |
|     | • To articulate the role of basin planners and can identify core competencies for the basin planners |
|     | • To demonstrate understanding of the role of the Mekong River Commission |
|     | • To be able to use decision support framework, tools and information to assist in basin planning |
3. Training Strategies

Each training module has been developed using integrated curriculum approach and competency-based learning module.

3.1 Using the Competency-based Training Module:

In the past, organizations described the attributes necessary to undertake a particular job successfully in terms of attitudes, skills, knowledge without reference to a standard of performance. It has long been known, however, that just the possession of knowledge, a particular skill or the “right” attitude does not guarantee competent performance. Performance is the most dynamic concept of how these three components are utilized and integrated in the workplace. The term competency, therefore, refers to this more dynamic concept... shifting the focus from what people “have” to what they can “do.” Demonstration (doing it) and assessability (measuring it) are key attributes of the competency concept. Each IRBP module has been developed to ascertain that the participants have ample opportunities to practice new knowledge and skills and share their application experiences with others. Competency-based training programme cannot run on a piece meal basis or isolate from the actual river basin planning process because a competency is not what the person know but what the person does/apply in his/her actual work. Each module follows three concrete steps as briefly described below:

1. **Learn to do.** Each training model will start with the participatory training sessions where concerned BDP members are trained on the concepts, techniques and tools to be employed to accomplish the real tasks of river basin planning team.

2. **Do to learn.** Immediately after the new skills/knowledge have been acquired, the participants will then work as a group or individually to apply the learned skills/knowledge, e.g. planning sub-area studies, transboundary issues meeting coordination, or public forum.

3. **Share to Learn.** After the assignment is completed, there will be an integration and evaluation session where each individual/group will have a chance to present their outputs and share the learning/working experience with other individuals/groups. Lessons learned and practical experiences from the actual applications will be shared and innovative knowledge and skill will emerge and be institutionalized.

3.2 Integrated Curriculum

Salient features of this curriculum are that competencies are carefully selected, river basin planning supporting theory is integrated with skill practice and essential knowledge is learned to support the performance of skills, and above all, the three core competencies
(communication, information management and facilitation) are integrated across the curriculum. Achieving these core competencies requires an understanding that this cluster of abilities is not extraneous to the curriculum but is woven into the curriculum’s content, structure, and sequence.

3.2.1 Overview of IRBP Curriculum

<table>
<thead>
<tr>
<th>Module</th>
<th>Broad content / messages</th>
<th>Training Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introductory Module – Setting the Context of IRBP Training</td>
<td>Ice breaking sessions to get to know each other, setting the context of the training course and explore expectations Elaborate on the flow and approach of the training sessions and give overview of the course WHY, WHAT, HOW, WHO AND WHEN</td>
<td>1 Session – 3 hours</td>
</tr>
<tr>
<td>1 – Why is Basin Planning important to the sustainable development of the Mekong River Basin</td>
<td>Basin planning is primarily concerned with planning and management of a basin’s shared resources for the benefit of all of the basin states. Basin planning differs from but complements national planning, sub-area planning or project planning. Basin planning focuses on transboundary issues and issues which have implications for the basin as a whole Basin planning is built upon a strategic approach to managing shared resources which maximises the potential for the benefit for all basin states.</td>
<td>1 Session - 3 hours</td>
</tr>
<tr>
<td>2 – What are the major issues in Basin Planning in the Mekong River Basin</td>
<td>The people of the Mekong River Basin share water, fisheries, floodplain/wetland, biodiversity and cultural resources. The different parts of the Mekong River Basin have different planning issues, in order to undertake effective basin planning, it is necessary to have an appreciation of these differences. The relationship between the people of the</td>
<td>3 sessions – 9 hours</td>
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<tr>
<td>Session</td>
<td>Topic</td>
<td>Description</td>
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</table>
| 3 | Principles and practices of good basin planning | Good basin planning requires:  
- A knowledge-based approach  
- Effective and meaningful stakeholder engagement  
- Effective institutional arrangements  
- Integration and coordination across sectors and areas of expertise  
- Informative monitoring and evaluation  
With good basin planning in place, decision-makers can be made aware of the “trade-offs” in developing the basin’s shared resources | 1 session – 3 hours |
| 4 | Applying the principles and practices in the Mekong River Basin | There are examples of good basin planning in the Mekong River Basin and instances where lessons can be learned:  
- The building of the knowledge base through the Fisheries Programme  
- Stakeholder engagement – Pak Mun, community involvement in fisheries activities  
- Institutional arrangements – Thailand River Basin Sub-Committee  
- Integration / coordination in BDP Programme  
- Monitoring and evaluation of Hydrological stations | 1 session – 3 hours |
| 5 | The role of basin planners | Basin planners are the integrators between experts, modellers and decision-makers  
Basin planners need to have the communication skills to take specialist advice and make it relevant to decision-makers  
In order to effectively perform the role, each planner must have core competencies in Communication, Information Management and Facilitation. | 2 Session - 6 hours |
| 6 | Overview of the role of the | The Mekong River Commission is the four Lower Mekong Basin States acting together for | 1 Session – 3 hours |
Mekong Basin Commission

their mutual benefit. This module covers:
1. Overview of international rivers, roles and functions of river basin organizations
2. History of Mekong Cooperation
3. 1995 Agreement, MRC Vision, Mission, Goals and institutional structures
4. MRC Core and Sector programmes and how they are link to the BDP

7 – Detailed role of the Mekong River Commission and some of the tools which can assist basin planners

More detail on the Programmes of the Mekong River Commission and how the Programmes link with Basin Development Project. This module is the add-on part of module 6 providing the practical details of Mekong Basin Planning which includes:
1. Basin Development Plan Programme implementation strategy and operating structure
2. MRC Strategic partners in Mekong Development (GMS, IUCN, ADB, Oxfam, National Universities, AIT, etc)
3. Information, data, tools and expertise available at MRCS (BDP Units, WUP, TSD, etc)
4. Information, data, tools and expertise available at national and regional institutions like line agencies, NMCS, academic and research institutions.

2 Sessions 6 hours

3.2.2. Metacurriculum

This training course consists of a “futuristic alternative concept,” in which curriculum throughout the seven modules has two levels; the curriculum, and the metacurriculum. The curriculum consists of substantive content and concepts as described above, whereas the metacurriculum consists of application skills like communication, facilitation and information analysis. These application skills are integrated across the curriculum on a day-to-day basis. This can be implicitly or explicitly taught, loosely or closely coupled with the content area, before and during the teaching of content areas.
a. Communication Skills

Communication competence is an assessment of the appropriateness of communication behavior made by the participants in an interaction. They are five basic communication competency categories: symbolizing, processing, adapting, controlling, and expressing. Symbolizing and processing underlie all other sets of communication skills. Adapting, controlling, and expressing abilities allow communicators to demonstrate communication competence in actual interaction. The communication skills that make up each of the five categories are used in combination to create overall communication competence.

It is vital that every river basin planner be able to:

a) Present issues and information, in his/her native language and (in English for NWG members), orally and in writing, in a compelling, clear and credible manner;
b) listen to others, correctly interprets messages from others and responds appropriately;
c) tailor communication to intended audience and uses appropriate tools and strategies (tone, format, style, etc.) to convey information;
d) exercises open, honest, and bilateral communication and projects a professional image; and
e) use appropriate verbal and non-verbal symbols in communication.

At the higher level, every river basin planner should strive to:

a) Present complex issues with clarity, credibility, and impact in widely varied forums;
b) provide "on the spot" answers regarding complex and/or organizational issues that reflect an awareness of the sensitivities and interests of diverse individuals and groups including media, senior public officials and interest groups;
c) capitalize on existing communications tools and strategies and creates new ones to ensure effective internal and external communications; and
d) promote organizational awareness by disseminating information to appropriate levels.

Communication has been examined from a number of perspectives in the past. Most recently, communication scholars have adopted a transactional, process-oriented approach to communication, viewing it as a multi-directional, interactive, dynamic process rather than a static, one-way sending of messages. Rather than spending time trying to decide what communication is, the focus of this curriculum is on how to do it better.
b. Information Management

Information management in this context is a set of abilities requiring river basin planners to “recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information”. Information literacy also is increasingly important in the contemporary environment of rapid technological change and proliferating information resources. Because of the escalating complexity of river basin planning process, basin planners are faced with diverse, abundant information choices – through media, internet, MRCS BDP Unit, National Planning Departments, etc. The sheer abundance of information will not in itself create a more informed workforce without a complementary cluster of abilities necessary to use information effectively.

Information management forms the basis for lifelong learning. It is common to all disciplines, to all learning environments, and to all levels of education. It enables learners to master content and extend their investigations, become more self-directed, and assume greater control over their own learning. A river basin must be able to:

a) Define and articulate the nature and extent of the information, experts opinion or DSF needed;

b) locate, establish contact and get access to information or DSF and select the most appropriate investigative methods to extract, record and manage the information and its sources;

c) evaluate information and its sources critically;

d) summarize the main ideas to be extracted from the information gathered; and

e) use information effectively to accomplish a specific purpose.

Developing lifelong learning abilities is central to the mission of this integrated modular training programme because it is unavoidable that “Half of what the river basin planners learn today will be obsolete in the next five years or so, and half of what they need to know to succeed in the future has not even been invented or developed yet”.

c. Facilitation Capabilities:

As river basin development planning has become more sophisticated because of the participation of all stakeholders, the role and context of the River Basin Sub-Committee and
its various working groups has been questioned. If public participation in the river basin planning process is the requirement of BDP, then there is a great need to increase facilitation skills of planners and public organizers to ensure that proper planning and public participation processes are carried out effectively.

Facilitation is emerging as an important aspect of effective river basin resources assessment, negotiation, formulating project, getting project endorsed by river basin committee at various levels and building the capacities of water users in IRBP.

To be effective, all river basin planners need to consciously shift to a facilitation role and develop skills which enable them to facilitate communication, sharing, problem-solving and processes which allow all stakeholders to make decisions for themselves. This requires a combination of skills and an understanding of group dynamics which allow Sub-area planners and organizers to explore water users perspectives and, more importantly, open channels of communication both amongst different stakeholders. These skills, along with a better understanding of such group processes, can help SAWG planners and community organizers identify and introduce appropriate interventions based on different users needs and interests while building on the knowledge and experience of the water users themselves. To summarize, each planner must be able to:

a) design, plan, coordinate, and facilitate consultative meetings with decision makers, working session with experts and modellers;
b) conduct stakeholder analysis and facilitate the participation of stakeholders at national and regional levels;
c) facilitate participatory planning process, public forum and community participation
d) demonstrate key collaborative problem solving skills and attitudes (Develops and analyzes options, objectivity, confidentiality, neutrality, respect for difference, and honesty).

Facilitation should be based on three values, i.e., valid information, free and informed choice, and internal commitment to those choices. Firstly, valid information means that people share all information relevant to an issue, using specific examples so that other people can determine independently whether the information is true. Secondly, free and informed choice means that people can define their own objectives and the methods for achieving them and that their choices are based on valid information. When people make free choices, they are not coerced or manipulated. Consequently, facilitators do not change peoples’ behavior. Facilitators provide information that enables people to decide whether to change their behavior. If they decide to change their behavior, the facilitator helps them learn how to change. Thirdly, internal commitment to the choice means that people feel personally responsible for the decisions that make. Each person is committed to the decision because it is intrinsically compelling or satisfying.
4. In the Context of Mekong River Basin Planning

This manual is designed for trainers and facilitators who have an interest in improving the integrated river basin planning skills of members of river basin organizations in the context of Mekong river basin development. While major parts of this manual can also be applied for other river basin planning, certain parts of the materials or methods must be adapted to your context to increase the likelihood that your participants can relate to it.
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SUCHAT KATIMA  
244/25 Soi 4/5 Chounchuen Parkville, Talingchan, Bangkok 10170  
E-mail: katimas@yahoo.com

EDUCATION & TRAINING:

**Doctor of Education**  
Silliman University, Dumaguete, the Philippines (Jan 2005)  
Dissertation Title: Core Competencies for Riparian Officials in Developing Mekong River: A Delphi Study toward a Modular Training Program

**Masters’ Degree in International Administration**  
The School for International Training (SIT), Brattleboro, Vermont, USA (Feb. 1990)  
Recipient of Outstanding Private Voluntary Organization Management Scholarship

**BA in International Politics**  
Ferguson College, Poona, India. (Feb. 1980)  
Recipient of Indian Embassy’s General Cultural Scholarship

**High School Diploma,**  
Enterprise High School, Redding California, USA. (June 1975)  
Recipient of American Field Services Scholarship

PROFESSIONAL EXPERIENCE

**Executive Director**  
(November 04 – present)  
Management and Executive Recruitment Consultant Co. Ltd., Bangkok, Thailand

Provision of management and human resource consultant services to multi-national clients in Thailand, Laos, Cambodia and Vietnam

**Freelance Education and HRM Consultant**  
(Oct 2001 – Nov. 2004)

Some of the major clients included

1. NIKE Inc. & Global Alliance for Workers and Communities, Thailand. (October 2001 - March 2002)
2. Department of Water Resources, Ministry of Natural Resources and Environment, Thailand. 2002
3. Lutheran World Federation - Cambodia Program. 2002
7. Cambodian National Mekong Committee 2003
8. International Rescue Committee – Thailand Program 2003

**Chief, Human Resources Development Section & Regional Manager of UNDP-funded Capacity Building Program** (Oct 1998 – Sept 2001)
Mekong River Commission Secretariat, Phnom Penh, Cambodia.

Responsible for managing, and coordinating human resources development programs, institutional strengthening and capacity buildings activities of MRC Secretariat and National Mekong Committees of four riparian countries (Lao PDR, Cambodia, Thailand, and Vietnam).

**Director of Human Resources & Administration** (April 1996 to September 1998)
Dutch Mill Group of Companies, Bangkok, Thailand.
The leading dairy product manufacturer and distributor with 8 affiliated companies.

Responsible for directing and monitoring company plans, programs, procedures and budgets to ensure the effective management of the personnel activities and human resources development programs of 3 manufacturing-based companies, 5 domestic and international trading companies. Also responsible for obtaining government permits and establishing sales and distribution offices in China, Laos and Cambodia.

**Senior Management Consultant** (Sept. 1995 - March 1996)
Management and Executive Recruitment Consultant Co. Ltd. (MERC), Bangkok, Thailand

Provided organizational and human resource management consultant to international clients. Major clients included Boots Retail, Minor Group, Coca Cola, Auto Alliance and Emerson.

**Project Director** (August 93 - Aug. 1995)
Appointed as the Director of USAID Funded Integrated Woman Assistance Project, implemented by International Catholic Migration Commission (ICMC). Battambang, Cambodia.

Directed and managed the USAID funded Integrated Women Assistance & Support for Local Initiatives Project in Cambodia. The project activities included the development of two sustainable women cooperative programs; training and supporting local NGOs and local initiated projects.
**Deputy Coordinator, Human Development Program**
United Nations Border Relief Operation (UNBRO), Thailand.
Aranyaprathet, Thailand (Jun 1991 - Jan 1993)
Phnom Penh, Cambodia (Feb. - Jun 1993)

Responsible for the management and administrative supervision of UNBRO Human Development Program for Khmer Displaced Persons in six UN assisted camps on the Thai-Khmer Border.

**Head, Human Resources Development Section:** (Mar. 1987 - May 1991)
International Catholic Migration Commission, US Department of State Program, Bataan, Philippines.

Headed the dynamic HRD Section of the largest US State Department funded residential training project in the Philippines which provided an intensive English as a Second Language, Cultural and Work Orientation Training to US-bound Indo-Chinese refugees.

**Operations Manager**
Thailand (June 1980 to May 1984)
Sudan, Africa. (June 1984 to Feb. 1986)

First joined as the Program Coordinator of Thailand Program and was responsible for the administration and coordination of IRC’s Sanitation, Public Health Education and Water Supply Projects in Hill-tribe refugee camps and affected Thai villages along the northern border of Thailand. During the Ethiopian Crisis, was reassigned to the Sudan to assume the post of Operations Manager. In this capacity, the incumbent managed the emergency relief operations in 10 Ethiopian refugee camps in the eastern region.

**PERSONAL DATA:** Thai national, male, 47 years old, married with 2 sons.