Interview: NRCP (PNSS) President Perfecto K Guerrero

Patricia B. Generoso

Murphy's law says, "If anything can go wrong, it will go wrong." It was exactly what happened to my tape recorder when I interviewed Dr. Perfecto Guerrero, president of Philippine National Science Society (PNSS), formerly named National Research Council of the Philippines (NRCP). My first interview with him was so lively that I immediately went home to transcribe it. To my horror, I discovered that the tape had gotten stuck in the cassette and only half of the first question was recorded!

I went back to Dr. Guerrero to ask for another interview and he immediately scheduled it for the following day. Our second interview was livelier and his answers more candid. But this second interview almost ended up like the first. I spent the whole afternoon reconstructing the questions and answers. On Easter Monday, I went back to him to check whether I had quoted him right.

For all his achievements and the honors received, Dr. Guerrero impressed me as cheerful, modest, and unassuming. While I was waiting outside his office to reinterview him, he personally called me inside. There were two tables, the bigger one cluttered with reports, the smaller with nothing on it. He and his staff gathered around the empty table. Occasionally, Dr. Guerrero would go to the other one to pick up some papers as the group talked animatedly about the 1989 budget. I noted great rapport between him and his staff.

For all his responsibilities as president of NRCP (during the interview, he insisted that I use NRCP, not PNSS, for historical and legal reasons), Dr. Guerrero does not receive any salary. He only gets an honorarium for his efforts. Surely a distinguished scientist like him deserves a better deal.

What is the NRCP budget for 1988-1989?

The annual budget is ₱10.45 million, all of which comes from the National Government. For the 1989-1990 budget, we are exploring the possibility of getting foreign grants but this must have a local counterpart

What are some examples of basic research funded by NRCP?

About 95% of the results of basic research serve as a basis for applied research. In the several divisions of NRCP, we have the following researches. Division III is working on the establishment of a Filipino HLA antisera bank and the effects of sweet potato leaf extract on glucose of normals and diabetics. Phytochemical studies on medicinal plants and antibiotic potentials of Philippine dicranoid mosses are done in Division IV. Division V does work on indigenous materials for microbial media. In Division VI there are several researches: Studies on the reproductive physiology of the Philippine Goat. Search for the best carrier for the nitrogen-fixing bacteria isolated from *talahib*, and Floral biology of

In the last annual meeting of the PNSS on March 5, 1988, a resolution was presented to Sen. Joey Lina, Chairman of the Senate Committee on Science and Technology, asking for the return of the PNSS to the old name NRCP.

petroleum nut trees (*hanga*). Division VII is working on the Assessment of technology for rural development and Improved processing of dehydrated tropical fruits. The hidden economy of the Philippines is studied in Division VIII. A sizeable portion of our GNP is lost to the underground economy which, if registered and taxed, would relieve us from seeking foreign funding. This division also undertakes studies on Filipino values and attitudes that affect socio-economic development in the Cordillera region of northern Philippines.

Division IX is doing research on chaotic responses of a molecule driven by a laser field. Division X is preparing a Pilipino vocabulary for chemistry and is also working on natural pesticides (pyrethrin) from plants. Division XI has work on Philippine variety of English as reflected in periodicals and in the written speeches delivered by Filipino speakers of English and Philippine folk literature: myths and legends, folk songs. A statistical method of forecasting tropical cyclone formation is being studied in Division XII.

What obligations does NRCP attach to every funded project?

Every funded research, whether successful or not, should be published at the end of the project. Knowledge must be disseminated.

Aside from the short quarterly financial reports, proponents are also required to submit a more detailed year-end liquidation statement.

What is the time-table for each project?

Projects are usually approved for two to three years. The first year is usually spent standardizing the procedure, buying the chemicals and equipment, and doing background studies. Actual experiments are done on the second year.

Although NRCP may approve a project for three years, funding is available on a yearly basis. So the chairman of each division, together with a panel of referees, evaluates the prog-

Know your NRCP President

Educational Background: B.S. Mining Engineering, Cum laude, UP, 1939; M.S. Mineral Engineering, Columbia University, 1952; Eng. Sc. D., Columbia University, 1954.

Honors, Awards, and Scholarships: UP President's Medal for Academic Excellence, 1939; Fulbright Smith-Mundt Award, U.S. State Dept., 1950-1954; Fellow: UP, William Campbell, Peter Trowbridge, Columbia University, 1950-1954; NRCP Merit Plaque, 1977; Achievement Award, UP Mining and Metallurgical Alumni Association, 1982; NRCP Golden Anniversary Achievement Award, 1983; UPERDFI Professorial chair in Ext. Metallurgy, 1984; UP Engineering Diamond Jubilee Award for Most Outstanding Graduate in Metallurgical and Mining Engineering, 1985; Metallurgical Engineer of the Year, PRC, 1985.

Publications: Published 21 papers. Completed 18 researches on rod mill energetics, Ni-NH3 leaching, direct reduction of iron ore, Ni segregation, copper extraction, minerals beneficiation, corrosion, coal beneficiation and utilization.

Some Positions Held: Professor of Metallurgy, UP, 1947-1985; Science Attache, Philippine Embassy, Washington, D.C., 1977-1982; Chairman, Dept. of Mining and Metallurgical Engineering, UP, 1957-1962; Member: Phi Kappa Phi, Sigma Xi, New York Academy of Science, American Association for the Advancement of Science; Current Chairman, PNSS Division of Engineering and Industrial Research; Current Member, Board of Examiners for Metallurgical Engineers, Professional Regulation Commission.

ress report for the subsequent renewal of the budget for the next year. In case of a 3-year project, it is renewed twice.

The chairman is elected, and the new chairman may have his own list of priorities.

The research and other scientific activities of the PNSS are conducted through the following twelve scientific divisions:

I. Governmental, Educational, and International Policies
II. Mathematical Sciences
III. Medical Sciences
IV. Pharmaceutical Sciences
V. Biological Sciences
VI. Agriculture and Forestry
VII. Engineering and Industrial Research
VIII. Social Sciences
IX. Physics
X. Chemical Sciences
XI. Humanities
XII. Earth Sciences

When is the deadline for the submission of research proposals for 1989?

There is no deadline for the submission of proposals but I am thinking of setting a deadline possibly three times a year. However, this must still be subjected to the approval of the governing board.

A deadline can give us an idea as to the amount of budget we can ask the following year and we are in a better position to prioritize which projects to approve.

However, we cannot touch the budget for 1988 because that is intended to fund the researches approved last year. So if you submit your proposal now, chances are, you may receive your funding in 1990.

What is the list of priorities for funded researches for 1989-1990?

Our priorities are similar to those priorities outlined by the National Economic Development Authority (NEDA) in its medium-term plan for 1987-1992. These are the delivery of services to the countryside and the contribution toward the economic recovery and growth of the nation.

You see, we submit our annual budget to the Department of Budget and Management (DBM) which may slash it according to their list of priorities. After approval by the Congress, DBM will release our appropriation. DBM normally sets a ceiling on budgets depending on availability of funds, so a 10 percent increase on the annual budget usually goes to the NRCP staff in line with the government policy to increase the salaries of government employees. Grants-in-aid funding remains substantially the same each year.

For the Medical Sciences division, the priority is public health; and for the Pharmaceutical Sciences, it is the identification of active components in herbal medicine. Both divisions work hand in hand with PCHRD.

For Division VII which is Engineering and Industrial Research, priorities are still alternative sources of energy, local substitution of imported raw materials and increased productivity.

Although we are busy searching for oil, we must not overlook the large reservoir of coal in the Philippines. Coal can be another source of electricity. So we can investigate the social and environmental implications of coal as an alternative source of energy.

ress report for the subsequent renewal of the budget for the next year. In case of a 3-year project, it is renewed twice.

The chairman is elected, and the new chairman may have his own list of priorities.

The research and other scientific activities of the PNSS are conducted through the following twelve scientific divisions:

I. Governmental, Educational, and International Policies
II. Mathematical Sciences
III. Medical Sciences
IV. Pharmaceutical Sciences
V. Biological Sciences
VI. Agriculture and Forestry
VII. Engineering and Industrial Research
VIII. Social Sciences
IX. Physics
X. Chemical Sciences
XI. Humanities
XII. Earth Sciences

When is the deadline for the submission of research proposals for 1989?

There is no deadline for the submission of proposals but I am thinking of setting a deadline possibly three times a year. However, this must still be subjected to the approval of the governing board.

A deadline can give us an idea as to the amount of budget we can ask the following year and we are in a better position to prioritize which projects to approve.

However, we cannot touch the budget for 1988 because that is intended to fund the researches approved last year. So if you submit your proposal now, chances are, you may receive your funding in 1990.

What is the list of priorities for funded researches for 1989-1990?

Our priorities are similar to those priorities outlined by the National Economic Development Authority (NEDA) in its medium-term plan for 1987-1992. These are the delivery of services to the countryside and the contribution toward the economic recovery and growth of the nation.

You see, we submit our annual budget to the Department of Budget and Management (DBM) which may slash it according to their list of priorities. After approval by the Congress, DBM will release our appropriation. DBM normally sets a ceiling on budgets depending on availability of funds, so a 10 percent increase on the annual budget usually goes to the NRCP staff in line with the government policy to increase the salaries of government employees. Grants-in-aid funding remains substantially the same each year.

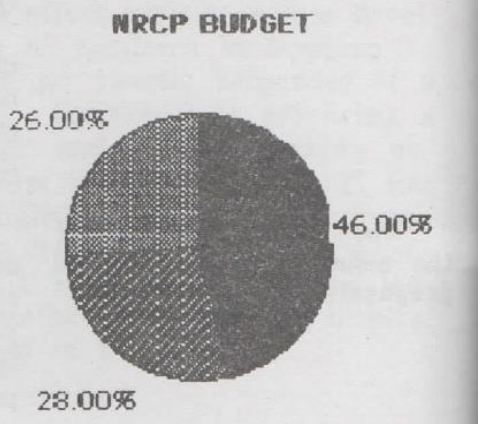
For the Medical Sciences division, the priority is public health; and for the Pharmaceutical Sciences, it is the identification of active components in herbal medicine. Both divisions work hand in hand with PCHRD.

For Division VII which is Engineering and Industrial Research, priorities are still alternative sources of energy, local substitution of imported raw materials and increased productivity.

Although we are busy searching for oil, we must not overlook the large reservoir of coal in the Philippines. Coal can be another source of electricity. So we can investigate the social and environmental implications of coal as an alternative source of energy.

Another study involves delivery of technology to the countryside. Generation of power is first on the list, if we find out there is a river or forest in that particular area. If the river has the required strength to turn the power wheel, and the forest has abundant wood, then we give the appropriate technology to deliver electricity to the countryside.

I think 25 percent of the budget for research and development should go to basic research. This does not necessarily have to be in the form of grants-in-aid. Some of the money may go into the procurement of new instruments to replace some outdated instruments we still use in the laboratory.



We cannot compete with some of the researches in the developed countries because of their extensive facilities. Perhaps what we can do is to effect technology transfer for local adaptation. But we must not neglect to develop our own technology. Hence, the Government has created a new council, the Philippine Council for Advanced Science and Technology Research and Development (PCASTRD) to take care of the university-based researches.

Going back to the annual budget, could you give us a pie chart of the operating budget? Say how much would go to administration, research, and operating expenses?

Administrative support gets ₱6.464 million, research and development ₱3.954 million, and science and technology services, ₱3.582 million. We have even cut down on infrastructure expenses. Only the first quarter budget for 1988 has been released and this was for personnel services. We were told to wait until BIR has probably collected the taxes for this year, before the next quarter allocation (for grants-in-aid) will be released. Our problem at present is that some of our research assistants have not received their salaries and may leave us. When we receive the money we might have to look for new research assistants to continue the projects.

What countries are willing to extend foreign assistance to NRCP?

France, Canada, West Germany, and JICA (Japan International Cooperation Agency). UNESCO does not have much budget now after the United States pulled out from the organization. And if they ever extend assistance it is likely that it will be in the form of technical assistance (consultants). But we don't need consultants as much as we need foreign funds. We already have too many qualified experts in the Philippines.

The Japanese seem to be most willing to extend financial

grants to our researches. I suspect, it may have something to do with the renewal of the American bases in the country. You see, Japan barely spends for her defense. Therefore, she must build a buffer zone around her by extending loans in the hope of improving the economy of the neighboring countries.

What is NRCP's 5-year development plan?

The governing board is thinking of having a development plan, although NEDA has outlined its list of priorities until 1992. Overall, the plan of NRCP is to assist the DOST agencies in achieving socio-economic goals which are geared to the development of the countryside, generate employment opportunities through improved productivity and enhance the quality of life for the Filipinos.

How long is your term as president of NRCP? When your term is over, how would you like people to remember your administration?

The president of NRCP is elected annually and can be reelected for another year. So the president can stay in office for a maximum of two years. This is my second year. I would like to develop a scientific capability in the present NRCP secretariat so it can undertake in-house researches, preferably on the study of national issues and problems. ※