SCIENCE IN SOUTHEAST ASIA

NORTH-SOUTH RELATIONS

Lopsided Partnerships Give Way to Real Collaboration

LOS BAÑOS, THE PHILIPPINES-When the Ford and Rockefeller foundations joined hands in 1960 to establish the International Rice Research Institute (IRRI) here, in the heart of this country's rice bowl, they designed a well-appointed, self-contained facility with its own laboratories, test fields, housing, and recreational opportunities for the dozens of First World scientists hired to lead the effort. The foundations had little choice: The Philippines' own scientific infrastructure was too weak to offer much help.

By 1977, when the International Center for Living Aquatic Resources Management (ICLARM) set up shop in Manila, the country's scientific capabilities had improved to the point where a couple of floors of downtown office space could suffice for its administrative needs. That's because the

center's scientists do most of their research in labs across the country and around the region-working with another Philippine re-

search institute to improve the tilapia fish genetically, for instance, or with the James Cook University in Townsville, Australia, to cultivate giant clams.

Jump ahead another generation, to the 1993 founding of the Center for International Forestry Research (CIFOR) in Bogor, Indonesia, and the trend is even clearer. With regional offices in southern Africa and Latin

America, CIFOR's 35 scientists spend most of their time on the road, collaborating with

800 scientists around the world.

These three centers-all members of the Consultative Group on International Agricultural Research (CGIAR), a global network supported by 42 countries-reflect both the old and the new waves of international collaboration with scientists in the region. Such joint efforts have trained local scientists, strengthened their institutions, and helped both earn credibility-and funding-from their own governments. They

also provide unique opportunities for outside scientists. But these links can foster dependency on outside sources of funding and isolate researchers from their own governments. And bureaucratic red tape can frustrate the best intentioned collaborations.

In many respects, the CGIAR centers have led the way in helping to build up local scientific capacities. F. A. Bernardo, an adviser to IRRI,

proudly ticks off a list of alumni that includes the undersecretary of agriculture in Egypt, the



Keeper of the Keys to Fossil Kingdom

YOGYAKARTA, INDONESIA-Teuku Jacob is the undisputed king of paleoanthro-

pology in a country rich in early hominid fossils. Trained as a pathologist and a physical anthropologist, Jacob has curatorial control of an extensive collection, much of it bequeathed by his mentor, Dutch anthropologist G.H.R. von Koenigswald, who died in 1977. But most of the collection sits locked away in a refrigerated safe in the basement of the institute that Jacob directs at the University of Gadjah Mada. Over the years, Jacob has made the fossils available for brief peeks, but rarely for detailed analysis.

Researchers around the world complain that Jacob's iron grip on the collection has slowed progress in understanding an important chapter of human development. But few are willing to discuss their complaints

on the record for fear of repercussions. "When you play on their court, you have to respect their rules," says Sidney Smith, a retired U.S. science attaché in Jakarta. "That's true for all interactions."

The 67-year-old Jacob confesses to being wary of outsiders who seek access to the collection. "We want people for whom anthropology is their life, not just people interested in the famous fossils," he says. "You have to be interested in the country, which is still young and trying to develop its science." Indeed, Jacob has been an eyewitness to that process: In 1950, he was a member of the first class to be admitted after independence to Gadjah Mada, the country's oldest and largest university, and he later moved up the professorial ranks until he became its rector in the mid-1980s. And his patriotism runs deep. As a 19-year-old soldier for the government in exile, Jacob broadcast a passionate message of resistance every Monday night to



Polite advice. Teuku Jacob says "manners are important" in research.

his comrades fighting to end Dutch colonial rule.

Active alumni, F. A. Bernardo

cites IRRI's training role.

Today, however, Jacob operates on a time scale that harried scientists on a short-term grant may find hard to understand. "Our

first inventory was published in the 1960s," he says. "Now we have to rework the whole thing as part of making our own collection." In

1991, he accompanied a skull for a 1-month trip to Paris for analysis by gamma ray spectrometry, "but we're not yet ready to publish the results," he says. Jacob is especially bothered by "pushy Americans, who want to go ahead and work even if you're not there. ... I think that manners are important."

It's not just pushy Americans who raise Jacob's hackles. He confirms that he had a stormy relationship with S. Sartono, a geologist at the Institute of Technology in Bandung, which holds several important

hominid specimens. Jacob acknowledges that the rivalry, which lasted for more than 30 years until Sartono died unexpectedly in 1995, stifled collaboration between the two labs. It also forced outsiders to choose sides when working in the country.

Foreign scientists are pinning their hopes for greater access to the fossils on the pair's successors. Jacob received a 5-year extension beyond the mandatory retirement age of 65, but he says he expects Etty Indriati, a faculty member finishing her Ph.D. in bioanthropology at the University of Chicago, to take over most of his lab duties when she returns. She will also need to rebuild the staff, which Jacob notes has shrunk as a result of recent deaths and retirements. In the meantime, Jacob says he will continue working at his own pace. "There's no hurry. Science is continuous, and you learn a bit more every year." -J.D.M.