Bringing Taiwan’s Technical and Vocational Education Experience to Central America

An Interview with Dr. Mao Kao-wen
ROC Ambassador to Costa Rica

A native of China’s Zhejiang province, Dr. Mao Kao-wen was educated at National Taiwan University, the University of California at Berkeley, and Carnegie Mellon University. Dr. Mao has extensive professional educational experience, having served as the dean of the college of engineering at National Tsinghua University, president of the National Taiwan Institute of Technology, and president of National Tsinghua University. He has served as Taiwan’s minister of education, vice president of the Examination Yuan, and has been ROC ambassador to Costa Rica since 1996. Ambassador Mao was instrumental in the creation of the Costa Rica Technical and Vocational Education Improvement Support Project, a flourishing program based on Taiwan’s own development experience. For this issue’s profile we have asked Ambassador Mao to share his experiences with Wang Tzeng-hui, leader of the ICDF technical mission to Costa Rica.

Wang: Please tell us about the origins of the Costa Rica Technical and Vocational Education Improvement Support Project, the course of implementation, and your impressions.

Mao: Before implementing this program, we first gained an understanding of what kinds of assistance Costa Rica required, as well as of the areas where we were in a position to help the country. Because Costa Rica has traditionally valued social welfare and labor protection, wages are relatively high compared with other Central American neighbors. It must, however, develop in the direction of more high-tech industry. While Costa Rica’s educational standards are higher than those of neighboring countries, too few qualified engineers and technicians are being trained to meet the needs of industrial development. In particular, since Intel planned to build a plant in Costa Rica, we proposed to help the country plan the development of its technical and vocational education system. But it put Costa Rica in a difficult position when we first began talking about vocational education, because the many involved government institutions operate independently. For instance, their Department of Education is responsible for all vocational schools, while the university system and Bureau of Vocational Training are independent. It would be a difficult task to integrate all these organizations together. We therefore chose to start a program that would only include the three high-tech fields of electronics, computers, and mechanics, which
could be implemented at seven vocational schools, two technical colleges and the Institute of Technology of Costa Rica (ITCR). In addition, we formed ties with industry and the Bureau of Vocational Training (INA) through our arrangements for laboratory facilities, teacher training and student assessment. The resulting education model can be extended to other schools and fields in the future. Planning and implementation of the program was performed by the National Taiwan University of Science and Technology, and I am extremely grateful to Professor Yang Chien-chiao and all the other domestic specialists who helped get the program off the ground.

The second phase of the program will include the establishment of a teacher development center at ITCR, and a student learning assessment center at the Department of Education. Industry will be invited to participate in future efforts to assess student-learning results. Completion of the two phases of the project will create a comprehensive framework for technical and vocational education in Costa Rica. The program of integration has been so successful because, from the beginning, we sidestepped the existing system and avoided many problems that had impeded development in the past. Since gaining this experience, we no longer have to look at the country’s problems from the outside. Therefore we were able to work more effectively with Costa Rica on other projects.

Wang: Your methods and approaches to cultivating the local private sector represent a quantum leap over conventional diplomacy. Please share your foreign aid principles and approaches.

Mao: The aid we have given Costa Rica falls mostly under three categories: infrastructure, education, and trade and investment. We feel that the full commitment of Taiwan’s technology, experience and know-how will unquestionably be much more effective than merely providing economic aid, and will better let the recipients see our participation. This is why the local people and news media here have always been on our side. In the case of technical education, our manpower, experience, knowledge and methods have all been very visible to the public. As for infrastructure, we took over and completed the pier for cruise ships at Puntarenas. We are also handling all aspects of the ongoing construction of the new bridge at Tempisque River. We’ve found that the results of this approach far exceed those of pure economic aid. And it also lets the local people understand us and realize our sincerity.

Wang: As the senior ROC diplomat in Central America, what direction do you think our future development aid to the region will take?

Mao: My feeling is that to deliver even better results, we should fully incorporate our experience, technology, knowledge and methods in our future assistance projects in Central America. I’d like to see the same thing happen with investment we should invest in items that will benefit Central American economic development while also capitalizing on one of Taiwan’s areas of
strength. We always want to strive for maximum output with limited input.

In the case of Costa Rica, its national flower is the orchid, and many varieties are grown there. The public is very fond of orchids. In Taiwan, the butterfly orchids bred by the Taiwan Sugar Corporation have earned a worldwide reputation for quality. Because the climate in Costa Rica is well suited to the cultivation of orchids, the Taiwan Sugar Corporation selected orchids as a promising area of investment. After the orchid investment becomes self-sustaining, we will shift our efforts to other areas. Because it represents a starting point, our embassy considers the orchid project to be very important, and we hope that it proceeds smoothly. When Taiwan Sugar encountered difficulties during the initial stage of the project, we asked the Costa Rican government to help find solutions. Our goal has been to make this project a success and then move horizontally to other development areas. Our consistent strategy has been to ensure success by devoting our full efforts to selected projects. One example of this is the BES Free Zone. We at the embassy did everything in our power to help this project overcome the difficulties it encountered. This project is now profitable. Other promising areas are the banana improvement project and the palmito processing project. In the latter project we are using technical improvements to change the taste of palm hearts to make them acceptable to Asian consumers. Our basic strategy is to select products that will have the most economic impact, and industries where improving management and production technology will improve quality and reduce costs. In the area of industrial development, we are in the midst of helping Costa Rica develop a precision mold industry. We have selected this development area with the hope that key breakthroughs will lay the foundation for future industrial development in Costa Rica.

Wang: What kind of relations have you maintained with the two presidents of Costa Rica who have served since you became ambassador in 1996? How will you try to maintain good relations?

Mao: The reason that I’ve been able to maintain good relations with both presidents is that I’ve showed them our sincerity and total commitment. We don’t make promises lightly we absolutely carry out everything we agree to. I’ve talked to them frankly about problems, and they’ve been very responsive, in fact very friendly. I feel very fortunate to have been on such good terms with them, and I consider them friends with whom I can talk about almost anything. For instance, I proposed the technical education program and the Tempisque bridge project in my conversations with them. The Tempisque bridge was a longstanding dream of theirs, and, after making four visits to the site, I also felt it was very important. I frequently take
the initiative in making suggestions during our conversations. I list ahead of time and then discuss any problems we might encounter. I consider us friends, helping each other overcome difficulties and resolve problems. Our frank talks have resulted in a positive atmosphere, and mutual trust has promoted sincere friendship. Our cooperation has been extremely important in the projects we have undertaken. In particular we had to overcome many difficulties in the technical education program and Tempisque bridge project. Thanks to their trust in us and confidence in our sincerity, they haven’t hesitated to do everything they could to iron out all the problems that we have faced.

Wang: What do you personally feel your greatest accomplishment has been during so many years in Costa Rica?

Mao: I think my accomplishment has been to win the trust and friendship of Costa Ricans. We always do all we can to let them know how we are helping them. We are using our limited resources and funds to win Costa Rica’s friendship. We can take great comfort in this fact.

Wang: Please tell us about your hopes concerning international cooperation, and any suggestions you have.

Mao: The ICDF is able to make relatively long-term plans. The ICDF can draw on the experience and know-how of academics and specialists in Taiwan to assist other countries with their infrastructure, education, and agricultural and industrial development. In conjunction with ROC diplomatic policies, the ICDF can formulate and recommend development strategies for allied nations. By taking advantage of Taiwan’s strengths to provide focused assistance, we can avoid the pitfalls of conventional foreign aid models, while achieving the maximum mutual benefit.