

*Short Communication*

**Lost Opportunity: Case Study of University Participation in Rural Development in Thailand**

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**Abstract:** This paper briefly relates the history of involvement by a Thai university in practical education at the rural community level through their involvement with the Royal Project food processing factories. This involvement, working with farmers and developing agro-industrial technology, stretched over a period of twenty years and both students and staff were the beneficiaries. While the project could serve as an appropriate model for hands-on learning, university participation effectively ceased in 1997 and an opportunity was lost to incorporate both the project and the model into the formal curriculum.

**Keywords:** food processing, hands-on learning, rural communities, subsistence farming, agro-industry

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**Introduction**

King Mongkut's University of Technology Thonburi (KMUTT) invested over twenty years in working with rural communities in Thailand. Following a recommendation from His Majesty the King, four food factories were established in rural areas. A major criterion in selecting the four sites was the difficulties experienced in bringing these communities into the mainstream of Thai social and economic life. It was thought that if these communities had supplementary income apart from rice and were not subject to middle-men when disposing of their crops, then they could adopt a more settled lifestyle [1, 2].

The chosen sites were either former Kuomintang strongholds, opium growing areas, sensitive border areas, or sanctuaries for the former Communist Party of Thailand. In all cases, the communities were resilient to central authority [3]. Involving them in any government-related community activity thus became a major task that would take many patient years to win their trust. Building this trust was essential as subsistence farmers had long been exposed to coercion from state agencies and resultant indebtedness [4, 5].

The guiding principle for these four activities was provided the knowledge and the means for these communities to grow additional crops, usually outside of the traditional rice season. These crops, such as tomatoes and baby corn, were then sold at a guaranteed price to the food factory for processing, usually canning. The factory itself also provided direct employment for the community, predominantly the women. Initially, the factories had to accept produce that was well below the normal commercial standards, until such time as quality control, better growing and post-harvest practices and better varieties could be introduced.

Profit was not a motive for the factories whose target was to break even. By providing supplementary income to farming communities and enjoining these communities in a settled, peaceful lifestyle was to be the main achievement at the expense of profit [6].

Much of the technology and training were provided by KMUTT staff and students. A special marketing office was eventually housed in KMUTT. Factory managers were hired for not only their management skills, but their ability to work at the community level.

When available, the University drew in resources from other activities they were engaged in. Notable examples of this were the full-fat soy flour processing facility and a fluidized bed boiler in Mae Chan provided under the ASEAN-Australia Program and a solar dryer installed at the factory in Burriram under an ASEAN-Canada Project. In effect, the four factories evolved into living laboratories for both students and staff of KMUTT. Civil, mechanical, electrical, environmental, chemical, food and energy engineers, along with microbiologists and others all had some involvement and were given unique exposure to the realities of life for rural communities. From this they could learn how their knowledge could produce improvements at the most basic level – something that could not be realized within the confines of the university.

### **Hands-On Learning**

During the heyday of the Burriram factory, KMUTT was involved in an exchange program with the University of Melbourne. Final year engineering undergraduates from Australia would visit Thailand for a month to work on a specific project, for which they would receive credit for their studies. Many of the students spent time engaged in hands-on activities at the Burriram factory

and were given close exposure to rural life and people in Thailand, an experience highly valued by those who were given the opportunity, more so for the social and cultural exchange.

Farmers contributing to the four factories were required to be paid in cash, on the spot, which was deemed an essential part of building trust. This was in addition to salaries for the workers

temporarily engaged in the factories. This necessitated the factories having a sufficient cash turnover before the final produced goods could be sold. The factories were forced to seek bank loans to ensure this cash flow. Despite personal contributions from many of the university staff involved, servicing the bank interest became onerous and the overall management body for the royal projects determined that a review should be undertaken. The review and the implementation of recommendations were largely conducted by banking and commercial interests. The farmers themselves were not involved in the process [7].

The decision was taken that the four factories should be run as commercial ventures, with the implication that university staff were unsuited for managing a commercial operation. Since this decision in 1997 to hand over control to the Crown Property Bureau, the Burriram factory has been closed down and only personal intervention from HRH Princess Sirindhorn prevented the same fate befalling the factory in Sakhon Nakhon.

Thus direct university involvement effectively ceased in 1997.

The four projects, particularly the Burriram operation, were the personification of hands-on learning, both for students and university staff.

### **Lessons Learned**

The closure of the Burriram factory presented an opportunity. The site itself was ideal in that it could be reached in 4 hours by road and adequate accommodation and meals were available. It was also in the centre of “progress” as the collection of villages became a temporary district and eventually a full district. With the cessation of hostilities on the Cambodian border and the influx of refugees, opportunities also expanded for commerce and economic progress. The factory site also had other attractions such as a large dam, some natural forest and ancient Khmer ruins, all largely protected by the Thai army.

However, it would be a bold step indeed for a university, at that time, to make a bid to purchase the factory outright. Of course there has been more progressive thinking since concerning the vital role of living laboratories and hands-on learning, including the establishment of a Food Engineering Practice School at KMUTT. Despite the advent of the Internet and progress in distance learning techniques, there does exist still a school of thought that everything should be nicely contained on-campus, under the watchful eye. At the time, KMUTT was in a favourable position since it had ready access to the accounts and could determine what the annual running costs were likely to be. Viewed in terms of the cost of education, rather than profit and loss of a commercial operation, these costs could not have been high.

The Burriram site could have provided an opportunity to expose engineers to entrepreneurship and practical management, in addition to the more obvious technical skills. Food technologists could implement food safety programs such as GMP/HACCP in a low-risk situation. Invaluable experience in working with communities and learning the social responsibilities that come with technology were available. There remains sufficient land resources at Burriram to establish a biodiversity study centre and aquaculture projects. Opportunities exist for agricultural extension,

soil scientists, organic proponents and the like to become involved under the umbrella of the trust, hard-won by the university.

## Conclusion

Unfortunately, this will not be the case and a unique opportunity is lost, after many years of effort and often hardship. Should there be greater recognition of incorporating practical experience into formal learning by the Ministry of University Affairs and others responsible for education, then support might one day be forthcoming for universities to venture into such bold but rewarding undertakings. On the positive side, many of the university staff who participated in these projects continue their involvement with rural communities to this day, albeit through other means. This early exposure has also spawned a number of other activities, such as the Science in Rural Schools Project, the Om Goi Karen Schools Project and the Phu Fa Project, whose lineage can be directly traced to the food processing projects.

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