2.11 The Importance of Professional Organisations and Professional Qualifications

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This paper briefly examines the development, organisation and role of the national scientific professional societies in Malaysia, with particular reference to chemistry. Malaysia is a country with a rapidly developing chemical industry, whose government has recognised the important contribution which professional societies can make in the country's drive to develop industrial technology and has recently taken active steps to enhance their role.

Prior to independence (1957) there were only a few professional societies, mostly local branches of those established in the UK such as the Malaysian Section of the Royal Institute of Chemistry (now The Royal Society of Chemistry) which still has a membership of over 120.

Since independence, there has been a steady growth of national-based discipline-oriented professional societies, especially since the 1970s. There are now some 40 active science-based national professional societies in the country, including the Malaysian Institute of Chemistry with a current membership approaching 1400.

The Malaysian Institute of Chemistry (MIC)

The Institut Kimia Malaysia (The Malaysian Institute of Chemistry) was established on 8 April 1967 as a professional society for chemists and registered under the Malaysian Societies Act 1966 on 13 October 1967. In 1975, with the enactment of The Chemists Act by the Government of Malaysia, the Institute became a statutory corporation with the power to regulate the practice and promote the interests of the profession of chemistry in Malaysia. Chemistry has therefore joined the other professions regulated by enactments (accountants, pharmacists, advocates and solicitors, veterinary surgeons, dental surgeons, engineers, medical practitioners, surveyors and architects) which all interact directly with the public and hence need to be regulated to ensure that the public interest is safeguarded and there is no malpractice. The Institute is run by a Council of 14 members, all of whom are elected except the Director-General of Chemistry, who automatically becomes the Registrar of the Institute.

The most important legal aspects of the Act are that it empowers the MIC 'to regulate the practice and promote the interests of the profession of chemistry in Malaysia'. The act requires that all chemists, who give or provide any chemical analysis in a determinative capacity and who certify or declare in writing the result of any chemical analysis for the public, should be members of the Malaysian Institute of Chemistry, and the Institute is empowered:

(a) to determine the qualification of persons for admission as members;

(b) to provide for the training, education and examination by the Institute, or any other body, of persons intending to be members and of members practising or intending to practise the profession of chemistry in Malaysia;

(c) to regulate the practice, by members, of the profession of chemistry in Malaysia;

(d) to promote the interests of the profession of chemistry in Malaysia; and

(e) to render such pecuniary or other assistance to members or their dependants as it thinks fit with a view to protecting or promoting the welfare of members.

Besides the registration and examination activities under the Act, the Institute carries out a whole range of professional and social activities to promote chemistry at various levels, including chemistry awards at school, university and professional levels, promotion of laboratory safety and the holding of symposia and conferences.

The most important section for the protection of the public is section 23 which is reproduced here:

"1. No person who is not registered under this Act shall (a) practise or hold himself out as a registered chemist or as a person of any other like description, (b) advertise by any means or in any manner as being engaged in practice as a registered chemist, or (c) adopt, use or exhibit the term 'registered chemist' or its equivalent in any other language or any other term of like description in such circumstances as to indicate or be likely to lead persons to infer that he is a registered chemist.

2. No person shall give or provide in a determinative capacity, or certify or declare in writing the result of, any chemical analysis for the purpose of determining the composition or specifications of any substance or product consumed or used by, or intended for the consumption or use of, the public or any section thereof, unless (a) he is a registered chemist, or (b) he is a registered pharmacist .... (for specified purposes), or (c) he is an employee working under the supervision of a registered chemist or registered pharmacist...

3. Any person who contravenes any of the provisions of subsections 1 and 2 is guilty of an offence and is liable, for the first offence, to a fine of one thousand dollars or to imprisonment for one year and, for a subsequent offence, to a fine of two thousand dollars or to imprisonment for 2 years".

In order to carry out these functions, the Institute has established regulations for the practice of the professions and for the training, education and examination of persons desirous of practising the profession of chemistry in Malaysia.

There are three grades of membership of MIC, which in order of increasing seniority are the Licentiateship (LMIC), the Associateship (AMIC) and the Fellowship (FMIC). All members of the Institute are designated as registered chemists. The membership of the Institute is close to 1400. In order to enable chemists with degrees from unrecognised universities to be recognised, the Institute has since 1978 conducted qualifying examinations annually.

As a part of the regulating exercise, the Institute maintains a register of chemical laboratories. All registered chemists are required, under the code of ethics, to inform the Institute of the names and location of laboratories under their charge. In order to promote a high standard of chemical analysis, the Institute launched a scheme of laboratory accreditation in 1986. 46 laboratories are now accredited in the areas of ores, metals, edible oils, essential oils, latex, SMR rubber, effluent, soil and plant, fertiliser, pesticide (paraquat and warfarin), feed meal, petroleum (oil and gas), cement and coal, and water. One of the essential requirements of the scheme is that laboratories must implement recognised monitoring procedures or participate in cross-check exercises. Cross-check exercises are available in several areas, namely latex, SMR rubber, effluent, palm oil, soil, plant, fertiliser, ores and pesticides. The accreditation scheme has certainly contributed to better quality control in the laboratories.

Under Section 27, the Minister of Science, Technology and Environment has appointed senior chemists in the public service as Inspectors for the purpose of the Act. They have over the years carried out routine visits to laboratories to check on the presence of registered chemists, safety features and existence of quality control practices, but it has not been necessary so far to bring any laboratory to court for offences under the Act. The visits have resulted in ensuring that chemical laboratories employ registered chemists (those who did not previously comply have subsequently rectified the situation or employed consultants) and that adequate safety features are present, thereby contributing to a safer laboratory environment.

Regional and Inter-professional Cooperation

There are now several regional federations of professional societies in Asia, including the Federation of Asian Chemical Societies (FACS) established in 1979. Its membership now comprises the 22 national chemical societies in Australia, Bangladesh, Brunei, China, Hong Kong, India, Indonesia, Iraq, Japan, Jordan, Korea, Kuwait, Malaysia, Nepal, New Zealand, Papua New Guinea, Philippines, Singapore, Taiwan, South Pacific, Sri Lanka and Thailand. Its major activities include: holding the Asian Chemical Congress every two years; publication of the FACS Newsletter; the FACS Foundation Lectureship, the Young Chemists Award and other Awards for contributions to chemistry; organisation of regional workshops and symposia in collaboration with international organisations (such as UNESCO); and establishing Working Groups on subjects of special interest to the region, such as environment, instrumentation, chemical education and chemistry-industry interaction.

The MIC is also a member of two Malaysian umbrella organisations for professional societies:

1. Malaysian Professional Centre (MPC) established in 1973 as a result of the initiative taken by the Commonwealth Foundation to strengthen professional societies in several countries (including Malaysia) by establishing Professional Centres.

2. Confederation of Scientific and Technological Associations in Malaysia (COSTAM) established in 1980.

There is some overlap in membership (MPC's 17 and COSTAM's 19 member societies both include the Medical Association and Institution of Engineers as well as MIC) and in aims (which include promoting cooperation between societies, publishing a periodical, formulating and expressing opinions), but the MPC tends to attract the larger societies and those not concerned with science and technology (dentists, vets, pharmacists, architects, planners, social workers). Many of the activities of professional societies will receive a boost from recent government action.

National Plan for Industrial Technology Development

In May 1990 the Government of Malaysia, recognising the low level of technological capability in the country, adopted a comprehensive 'National Plan of Action for Industrial Technology Development' with a view to accelerating its efforts towards industrialisation. One of its recommendations is to 'encourage and increase the role of professional and science-oriented societies through incentive and support measures'.

In keeping with the recommendation, the Ministry of Science, Technology and Environment provides financial assistance to professional societies for organising activities which increase public understanding and appreciation of science and technology, as well as activities that enhance science and technology capabilities of the country. In 1991, the Ministry set aside a record budget of $1 million ringgit for the National Science and Technology Week held from 8-14 August.

The Ministry of Science, Technology and Environment of Malaysia has recognised that the major weakness which restricts S and T-based professional societies from playing a more significant and meaningful role is the lack of funds and of secretarial and supporting facilities. It is therefore considering establishing a National Resource Centre for science and technology-based non-Governmental Organisations (NGOs) which would, for example: encourage cooperation between NGOs and the Ministry, harness their resources towards national projects and obtain their comments and advice; help to promote science (eg. school science clubs, public awareness campaigns); provide at a nominal charge common secretarial facilities such as permanent address, fax, photocopy, printing, equipment, PC, addressograph, etc. which can be used by NGOs (currently only a small handful of the larger NGOs have easy access to these facilities); build up a documentation centre on the NGOs; and publish regularly, jointly with NGOs, a popular Science and Technology Bulletin/Journal and other publications.

Conclusion

Malaysia has recognised the important role that professional societies can play in the socio-economic development of the country and has taken strong positive steps to harness this valuable resource. The change in the role of the MIC from professional society to statutory corporation, associated with enactment in 1975 of the Chemists Act, opened up a new and exciting chapter for the profession of chemistry in Malaysia. It provides the necessary safeguards to ensure that chemistry is used for the best interests of the nation and the public and at the same time provides the impetus for the development of the profession. As in the case of other similar Acts which regulate the practice of the different professions, the Chemists Act has confirmed the importance of professional qualifications. Among the main advantages are proper regulation of the profession, orderly growth, greater professionalism, avenues for professional advancement, regular updating of scientific knowledge through training courses, workshops and symposia, and contribution to the scientific and technological manpower of the country.

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