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TOPONYMIC EDUCATION AND PRACTICE AND INTERNATIONAL
COOPERATION: TECHNICAL ASSISTANCE

Transfer of technology to developing countries

Paper submitted by the United Kingdom of Great Britain
and Northern Ireland**

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** Prepared by H. A. G. Lewis.
1. Even as recently as the Fifth Conference on the Standardization of Geographical Names, held in 1987, transfer of technology to developing countries was closely associated with the supply of costly computer equipment requiring numbers of highly trained computer staff. This is no longer the case. The power of the inexpensive micro-computer and the capabilities of the personal computer have changed the situation dramatically.

2. Personal computers are easy to use and they now have various database management systems that are eminently suitable for the processing of geographical names. There may be some limitations in the field length, but the PC is now a powerful tool and very versatile. Database systems are adequate for dealing with large volumes of names and suffice for handling the national archive of names in many cases.

3. With geographical names, the basic requirement is to store, to sort and generate lists. There is an added requirement for selecting by categories and a certain amount of analysis of the data, but those operations are well within the capacity of the personal computer.

4. It can be said, therefore, that the technology exists, and it is suitable for use in developing countries by reason of its low cost. The technology itself is no impediment to transfer of information between the more developed nations and the less developed. There are numerous hardware and software salesmen ever ready to find new markets for their wares.

5. Storage of names data, sorting and output, therefore, present no major difficulties. Yet there are factors which inhibit the successful use of modern technology in the less developed world. There is often a shortage of staff with the required knowledge and skills. There are competing demands for those who exist, but far more important is availability and quality of the data which would form the database. The quality of the data includes the quality of the writing systems used for the recording of names and the romanization of those systems where romanization is used.

6. There are very few bilingual or multilingual national databases. Those that exist are, generally, the product of digital cartography. It is difficult, therefore, to separate a geographical names database from digital cartography. It is, furthermore, to be hoped that digital cartography, including, in time, GIS technology, is part of the technology which will be transferred. In the case of bilingual digital cartography, the construction of a names database and the output of names data for use in mapping requires special development extending far beyond the skills required for the storage, sorting and output of names in list form. Databases designed for digital cartography do not often lend themselves to gazetteer production, and gazetteer production is far removed from a truly comprehensive geographical names database.

7. The real problems remaining in the construction of a names database are: the quality of field collection of names; the nature of the office processing; and, consequently the reliability of the data in the final database.
8. Those who have not worked in countries where these problems exist are, it can be said with certainty, unaware of all the pitfalls awaiting those who embark on field collection of names. It is often assumed that successful collection of names in the field requires no more than an educated national speaker of the language. That is almost never the case. The real requirement calls for considerable judgement on how to distinguish between local dialect and the formal language and in multilingual areas, how to find a "link" language between two linguistic areas. Above all, it requires a kind of skill built on experience, which few possess.

9. Office processing of names requires further experience in how to establish preferred names and sometimes a hierarchy of preference.

10. In discussing the transfer of technology, those sorts of questions are generally left out of the reckoning. They must not be left out. They are far more difficult to deal with than the possibility of transferring technology of a highly developed but simple kind, like the technology required for the simple operations of storing, sorting and producing lists. Furthermore, the kind of knowledge required, which will provide for digital cartography and a toponymic database of high reliability, is not easily acquired or simple to transfer.