from crops, but to present zero risk to the applicator, have no adverse effects on the environment (water, soil, air, wildlife) and show zero residues in food and feeds.

**Conclusion**

With the increasing awareness concerning health hazards associated with agrochemicals on the part of consumers and environmental and farming groups, there has been a consequent demand for more stringent regulatory measures in the development of environmentally safe pesticide formulations. However, mankind will still continue to use chemicals to produce adequate supplies of food and feeds, while trying to minimize associated risks to the environment. Risk is an intrinsic part of life and must be weighed against the benefits likely to result from any particular action.

It goes without saying that there are limits to the safety of all chemicals. Toxicity cannot be overlooked, for there is nothing without toxic qualities. It is only the dose and duration of exposure which determine chemical safety and chemical toxicity.

**References**


**Background**

Over the past 16 years, the Ugandan economy has been steadily growing. The government has embarked on a policy of liberalizing the economy and attracting foreign investment. Many industries, construction sites and other workplaces have been established. Globalization has also arrived – with its effects. This means that the amount of occupational safety and health information that needs to be collected, analysed and disseminated has increased exponentially. The Department of Occupational Safety and Health within the Ministry of Gender, Labour and Social Development is the sole body in Uganda responsible for this task, though it works closely with employers, workers, trade unions and other stakeholders. In order to perform this enormous task, there must be a well-organized Management Information System that links all the stakeholders, collects and disseminates the information, and exchanges it internationally in the shortest possible time.

Information collection and dissemination is the responsibility of the Department in close collaboration with the International Occupational Safety and Health Information Centre (CIS), which has established a national centre in Uganda; this centre is located within the Department.

The Department keeps records manually, and the volume is now unmanageable. Analysis of the data collected is also manual and has become unmanageable as well. No statistics exist concerning accidents, diseases, or injuries reported or investigated.

Responses from employers, workers and other partners/stakeholders and the public come mainly through the mail, which is slow and often arrives late.

The national CIS centre has two computers, which are not networked and at present not connected to the Internet. Furthermore, the centre has no telephone or fax services. All of this makes information sharing and exchange difficult. The centre is not known by the poten-
tial users of information. Even though international bodies always send information promptly, it rarely reaches its intended users.

Why the OSH Management Information System is needed

A well-organized Occupational Safety and Health Management Information System (MIS) is necessary in order to handle enormous amounts of data with the least resource input by using information and communication technology (ICT). Developing a good ICT base means investing in equipment, software, training and maintenance, but the benefits by far outweigh the investment. A Local Area Network (LAN) with a central database that is connected through the Internet to other networks or computers, at the national and international levels, should be developed. See the block diagram below.

Information can flow either way – but with restrictions. The backup CDs store the information, so that in case of any problem they can be referred to. They also need to be regularly updated. Thus at least one of the computers in the Local Area Network should have a CD-writer drive. The information management system should be protected in such a way that only authorized persons can access it. Some information that is for the general public should be protected from interference but not from access. General information can be published through a website with links to other sites of interest, which should also include the Department’s website as a link. Responses can be received through web forms at the site or by E-mail.

A system of this kind would be of benefit in the following ways:
♦ A lot of information could be stored, backed up and retrieved in the shortest possible time and with few staff.
♦ A lot of data would be stored and presented in an organized manner with little effort.
♦ Exchange of information, both within and outside the Department, would be enhanced.
♦ Updates could easily be effected.
♦ Information could be easily disseminated.
♦ Time that would otherwise be used for analysing and storing data manually would be saved.
♦ There would be savings as far as the cost of stationery was concerned.

The way forward

The Department needs to acquire a system similar to that shown in the block diagram, that is to say a Local Area Network, a Database and a Website. It also needs to train its personnel in information and communication technology (ICT), publicize the Department and the CIS national centre and work closely with partners and stakeholders both locally and internationally to develop a network.

The Department has set up a trial website (http://oshuganda0.tripod.com), but this is hosted by Tripod, which advertises on it. Most of these advertisements do not have safety and health in their message. Advertisements would be eliminated if the Department paid for a Domain name and hosting services. With its small budgetary allocation, the Department must develop partnership with other international agencies that would be of assistance.

Conclusion

Developing a computerized Occupational Safety and Health Management Information System is the only way to achieve effective and organized information collection, analysis and dissemination. This would go a long way towards improving the occupational safety and health situation in the country, in the region and further afield.

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