

# SEOUL DECLARATION

## September 2001

The 52nd International Executive Council (IEC) Meeting and the 1st Asian Regional Conference of the International Commission on Irrigation and Drainage (ICID) on the theme of "Agriculture, Water and Environment" was held in Seoul, the Republic of Korea, from 16-21, from 16-21 September 2001. The issues of irrigation and drainage, irrigation system automation, water quality and water policy, environment, flood control, wastewater reuse and development of tidal swamps, particularly in the Asian region were discussed by some 600 participants from 45 countries and 12 international agencies. A total of 152 papers were presented of which about one third touched on rice irrigation reflecting the importance of rice cultivation in the monsoon Asia.

The 1st Asian Regional Conference, ICID 2001 Seoul envisages a vision of sustainable agriculture and water development in harmony with the environment for Asia and the world. This is necessary to meet the needs of global and national food security whilst increasing farm incomes, improving rural amenities and revitalizing local communities and cultures with minimal adverse impacts on nature and the environment.

The major conclusions by the participants of the Conference are the followings :

1. Efforts for Improving water management, modernizing irrigation facilities, developing and applying new water saving irrigation techniques and reusing irrigation water will have to be initiated to cope with the likely future food and water shortages and deterioration of rural environment caused by rapid increase in population and economic growth in many developing countries. Efficient water management and comprehensive information systems are needed for the optimum distribution of water between irrigation and other water sectors, and conservation of eco-system and soil environment in the rural area.
2. Irrigation system automation and real time monitoring can greatly contribute to reductions in water loss, labor cost and environmental impacts on agriculture and the natural environment; thus becoming one of the alternatives to overcome the deficiency of water and labor. Developing countries should be encouraged to expand the use of low cost and cost effective automation systems to meet future challenges.
3. Increased attention to Irrigation water quality, better management of non-point source pollution and environment-friendly farming with low input of chemical fertilizers and pesticides is desired for keeping sustainable agricultural production, whilst conserving the rural environment.
4. As water becomes a limiting resource, competitions, among water use sectors and disputes between upstream and downstream users and nations in sharing water have increased. Relevant laws and policies are needed to ensure such sharing which will have to be equitable and efficient.
5. The rice culture in the monsoon region, particularly in Asia, has not only contributed greatly to providing a stable food supply for billions of people, but it has also contributed to economic growth, conservation of rural environment and various traditional cultures, and revitalization of rural communities. Therefore, improvement of irrigation and drainage practices, operation, maintenance and water management technologies in rice farming will have to be further intensified to ensure sustainability of agriculture and rural communities.
6. Integrated flood control measures through improved land and water management and drainage systems, provisions of forecast and alert systems, and increasing surface water storage and ground water recharge will have to be promoted to reduce flood damages.

In order to achieve the vision of the 52nd IEC Meeting and the 1st Asian Regional Conference, the following recommendations are made.

1. The provision of new low-cost high-efficiency irrigation and drainage systems with low impacts to the natural environment will ensure sustainable agriculture and water development as well as conservation of the environment.
2. Competition in water use and deterioration of water quality have resulted in less water being made available for agriculture. Water saving irrigation techniques and water quality management measures will have to be promoted in order to cope with the decreasing water availability and the pollution of water.
3. Increases in input and support from both the public and the private sectors for the development of future oriented, cost effective and environment-friendly irrigation and drainage systems, the rehabilitation of old irrigation and drainage facilities, and the automation of water management will ensure food production.
4. Close cooperation among the Asian countries for promotion of rice culture, increase in irrigation efficiency, improvement of water quality and rural environment, revitalization of rural communities and better management of floods in the region will have to be ensured.