

EUROPE ASSESSES ITS WATER RESOURCES

Better methods of evaluating freshwater resources to ensure more rational management of supplies were worked out by the Strasbourg Water Symposium, organised by the Council of Europe and the Louis Pasteur University of Strasbourg from 29 February to 3 March 1972. By pooling the wide experience of about 100 experts from 15 West and East European countries as well as Iran, Canada, and Venezuela, the Symposium reached several conclusions:

—a permanent exchange of information on data sources, research methods, and international rivers and ground-water resources, should be organized at European level;

—a systematic survey of the various cartographical aspects of hydrological phenomena would also be most useful;

—international cooperation in exploiting recordings achieved on the technical level should also be developed on the scientific level;

—lastly, the Symposium emphasized the great importance of national water surveillance networks.

These conclusions, of a scientific and technical nature, are designed to improve research and action towards safeguarding one of mankind's most indispensable resources, water.

Besides their technical contribution, the results of such research may lead to the solution of political and economic problems, because they call for the implementation of an effective water policy. Thus the conclusions of the Symposium will assist administrations to solve one of the chief problems facing our industrial civilization and matters of great public concern.

This fact was stressed by Professor J. Tricart, of Strasbourg, who said that 'this selective revision of methods of assessing an increasingly precious resource could help all the countries of the world which want to avoid certain mistakes and costly difficulties likely to hold up their development'.

The research findings, which are important for European states, can be valuable also to the rest of the world and especially to the developing countries for whom the mobilization of water resources is an urgent question.

The fact that technology alone cannot solve water problems and may even create some of them was underlined by Sir Norman Rowntree, Director of the Water Resources Board of England and Wales. He concluded his statement at the Conference by saying: 'High standards of technology must be used with an understanding of the economic, administrative, and political, systems of the country in order to produce

useful results. Increasingly, the scientist, the engineer, the economist, the administrator, and the politician, must understand something of each other's special language'.

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THE PRESENT STATUS OF RHINOS IN INDONESIA

A small population of the Javan Rhinoceros (*Rhinoceros sondaicus*) survives in Ujung Kulon Nature Reserve, which lies near the westernmost tip of Java. These animals are probably the last remnants of the species. As we have reported previously (*Biological Conservation*, 2(1), pp. 68–70, October 1969, and *Acta Tropica*, 26, pp. 98–135, 1969), IUCN and WWF, in collaboration with the Indonesian Government, have started efforts to save this nearly-extinct species. Since 1967, WWF has continuously given financial support to the guard-organization of the reserve, and the Basel Patronage Committee for Ujung Kulon (President: Prof. Dr R. Geigy) has, every year, financed a scientific mission to Ujung Kulon.

With the exception of 1970, each year, a Rhino census, based on footprint analysis, has been carried out. The results are summarized in Table I.

TABLE I

Census of the Javan Rhino Population in Ujung Kulon

Year	Number of Rhinos estimated (footprint analysis)		
	Minimum	Maximum	Average
1967	21	28	24.5
1968	20	29	24.5
1969	22	34	28.0
1971	33	42	37.5

These data show a significant increase in numbers which is obviously due to successful reproduction within the population and to decreased poaching in consequence of the improved guarding, especially under the leadership of the present head of the guard-system, Mr Widodo. This increase is corroborated by the frequency of encounters with Rhinos and by the observation of immature animals and their footprints in recent years. Late in 1970 Dr Walther Angst, a member of the Basel scientific mission, came upon an almost new-born calf.

In 1969, we made a survey tour in two regions of Sumatra, around Pekan Baru in the Province Riau and in the Mount Leuser Reserve in Atjeh, looking for signs of surviving Sumatran Rhinos. At least near Pekan Baru, a healthy Rhino population had still existed in 1960. We found plenty of evidence of relentless Rhino poaching and of its disastrous effect on the local Rhino populations.

Alarmed by our report, WWF and IUCN, in collaboration with the Indonesian Government, started a fact-finding expedition to the Mount Leuser Reserve. It was carried out in 1970 by Dr F. Kurt, University of Zürich, and Mr Walman Sinaga, the present head of the Nature Conservation Service. During his three months' stay in the reserve, Dr Kurt covered an estimated distance of 600 km on foot. He saw no Rhinos, but found the footprints of altogether eleven Rhino tracks. The size of these footprints, which were measured in hard soil, is astonishing. Most of his measurements have a considerable variation within the same track, the mean width of the hind feet were calculated as: 19, 20.5, 21, 21.5, 22.5, 23.5 (twice), 25, 27, and 29.5 (twice), centimetres. In comparison with previous measurements of the Sumatran Rhino's footprints (Milton, O., *Oryx*, 7(4), pp. 177-84, 1964; Strickland, D. L., *Malayan Nature Journal*, 20, pp. 1-17, 1967), which ranged between 14 and 23 cm, three tracks measured by Dr Kurt are much larger. The two tracks with an average width of 29.5 cm had measurements ranging between 27 and 34 cm, and 26 and 33 cm, respectively. Even of the Javan Rhino in Ujung Kulon we have never found footprints exceeding 31 cm in width.

On the basis of his observations made on eleven Rhino tracks in four different localities, and of additional information obtained from local hunters and poachers, Dr Kurt came to the conclusion that the Mount Leuser Reserve may contain between 27 and 68 individuals. In addition, he suggests that his findings raise the question of whether the Rhinos living in Atjeh belong not only to the Sumatran Rhino (*Dicerorhinus sumatrensis*) but also to the Javan Rhino.

This report has created a wave of unrealistic optimism. In newspaper articles were published statements to the effect that the survival of both rhino species in Indonesia is now ensured, the Sumatran Rhino in the Mount Leuser Reserve and the Javan Rhino there as well as in Ujung Kulon. This optimism is misleading and dangerous, since it is not supported by hard facts. The following statements have consequently to be made.

The situation of the Javan Rhino in Ujung Kulon is not critical at the moment. The species will survive there provided the present favourable collaboration between the Indonesian Government and WWF con-

tinues. Otherwise its situation would immediately become precarious.

As to Mount Leuser, we do not know the situation in detail, but in any case the information provided by Dr Kurt only indicates that there are still rhinos in the reserve. There is no doubt that their number is small and their survival far from guaranteed. If, in fact, both rhino species exist in the Mount Leuser Reserve, this would mean that the population density of each one would be almost hopelessly low. In any case the situation calls for an immediate conservation effort. The Patronage Committee for Mount Leuser, which has been formed by the Dutch WWF, will tackle this task in collaboration with the Indonesian Government. It can only be hoped that these efforts will result in efficient protection of the small surviving rhino population.

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WORKING PARTY ON WILDLIFE MANAGEMENT HELD IN KENYA

The Fourth Session of the *Ad Hoc* Working Party on Wildlife Management of the African Forestry Commission was held in Nairobi, Kenya, 1-3 February 1972. It was followed by a study tour to Tsavo West National Park, to Amboseli Game Reserve, and to a privately-owned ranch where wildlife is associated with the raising of livestock.

The Session was attended by Heads of Forestry, Wildlife, and National Parks Departments or Organizations from twenty African countries, the various delegates presenting their national reports on progress during the past three years. Twenty-one papers and secretarial notes were presented and discussed, dealing with a variety of topics including: (1) marginal lands issues; (2) wildlife and land-use planning; (3) economics of wildlife management; (4) national parks and tourist development; (5) ecosystems and national parks; (6) threatened species in Africa; and (7) the importance of unified wildlife statistics.

Several resolutions were passed for UNDP/FAO implementation.

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