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NOTE

Units of Measurement

As for the previous Congresses and though some authors do not fully agree, we attempt to follow the recommendations of the International System of Units (SI).

For example, hm^3 and km^3 were preferred to 10^6 and 10^9 m^3 , or million and billion cu.m. See Bulletin 34 "ICOLD Guide for the International System of Units (SI)", page 13.

The decimal sign may be the full stop (Anglo-Saxon usage) or the comma (European usage); but as a safeguard against confusion, full stop (period) and comma are used as decimal sign only.

Where the number of digits before or after the decimal sign exceeds three, the digit should be divided into groups of three by half space.

We meet not enough co-operation from some authors writing in English who go on keeping the comma to separate the groups of three digits instead of using half space. It was not possible to make the appropriate corrections in all the tables provided by the authors and even in the text. Sorry for the inconvenience.

AVERTISSEMENT

Unités de Mesure

Comme pour les Congrès précédents et bien que certains auteurs manifestent des réticences à ce sujet, on s'est efforcé de suivre les recommandations du Système International d'Unités (SI).

Par exemple, on a utilisé plus volontiers hm^3 et km^3 au lieu de 10^6 m^3 et 10^9 m^3 ou million et milliard de mètres cubes. Voir Bulletin 34 « Guide CIGB du Système International d'Unités (SI) », page 13.

De même, on a retenu le point (usage anglo-saxon) et la virgule (usage européen) comme signe décimal, mais pour éviter toute confusion, la virgule et le point ne sont utilisés que comme signe décimal.

Aussi, quand le nombre de chiffres avant ou après la virgule est supérieur à 3, les chiffres sont groupés par 3, chaque groupe étant séparé par un court espace.

A ce sujet nous rencontrons encore des difficultés de la part de quelques auteurs de langue anglaise qui continuent à utiliser la virgule au lieu d'un court espace pour séparer les groupes de trois chiffres. Nous n'avons pas pu apporter les corrections nécessaires dans tous les tableaux fournis par les auteurs et même dans le texte. On voudra bien nous en excuser.

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PAPERS ON Q 69

RAPPORTS SUR LA Q 69

**Environmental experience gained
from reservoirs in operation****Subject**

Factual review of environmental effects of the project as compared with initial predictions, in the following areas :

- a) Social and economic aspects including resettlement, local economy, tourism and recreation, water-related diseases.
- b) Geophysical aspects including reservoir clearance, changes in waterflow and sediment transport, river bed degradation and changes in groundwater level.
- c) Water quality.
- d) Flora and fauna, including aquatic life.
- e) Local climate.

**Retenues en exploitation : expérience
dans le domaine de l'environnement****Objet**

Les rapports traiteront uniquement de la comparaison entre les effets constatés et ceux initialement prévus, dans les domaines suivants de l'environnement :

- a) Aspects socio-économiques comprenant : relogement, économie locale, tourisme et loisirs, maladies hydriques.
- b) Aspects géophysiques comprenant : nettoyage et déboisement de la zone de la retenue, modification du régime de la rivière et du transport des sédiments, érosion du lit de la rivière, variations de la nappe phréatique.
- c) Qualité de l'eau.
- d) Flore et faune, y compris la vie aquatique.
- e) Micro-climat.

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**THE EFFECTS AND CONSEQUENCES OF DAM
AND RESERVOIR OPERATION IN SLOVAKIA (*)**

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SLOVAKIA

I. INTRODUCTION

In an average year $36.37 \times 10^9 \text{ m}^3$ of precipitation fall on the territory of Slovakia, the catchment area of which is $48\,950 \text{ km}^2$. The surface runoff represents $12.592 \times 10^9 \text{ m}^3$. The construction of dams and reservoirs has got almost 500 years of history. The construction of an extensive system of reservoirs, created by earth dams (height $H = 8 - 30 \text{ m}$) began at the beginning of the 16th century in the surroundings of the Banská Štiavnica town. In the surroundings of this town gold and silver had been mined. Small gravity and multiple masonry dams for timber navigation and water power purposes were constructed at the end of the 19th and the beginning of the 20th centuries. In the Slovak reservoirs about $1.7 \times 10^9 \text{ m}^3$ of water is accumulated at present to satisfy the demands of water supply (citizens, industry), irrigation, water power, etc. The utilization of water potential in Slovakia, i.e. the direct and indirect effects of reservoirs and dams and some consequences of their operation on the surroundings is analysed in the given paper.

(*) *Les effets et les conséquences de l'exploitation des réservoirs et des barrages en Slovaquie.*