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Dream of Nepalese Hydrologists and Meteorologists comes

Nepalese Hydrologists and Meteorologists wished from a long time for an independent organization capable to look after their professional interests and act as a platform to voice their concerns. Their wish has now come into existence.

An Ad-hoc committee formed on 23rd March 2001 on the auspicious occasion of the World Meteorological Day, which after several discussions with distinguished hydrologists and meteorologists from various organizations of the country have come to the conclusion to establish the "Society of Hydrologist and Meteorologist-SOHAM-Nepal". SOHAM-Nepal was registered at the district administration office, Kathmandu on 3rd Magha 2058 BS (January 16, 2002).

The Ad-hoc committee has now successfully completed the first general assembly on 05 Shrawan 2059 BS (July 21, 2002) and elected unanimously the members of the executive committee. The list of elected members of the executive committee are as follows.

Chairman

Mr. Adarsha P. Pokhrel
Director General
Department of Hydrology &
Meteorology

Vice-chairman

Dr. Janak Lal Nayava
Freelance Consultant

General Secretary

Dr. Arun .B. Shrestha
Hydrologist-Engineer
Department of Hydrology &
Meteorology

Secretary

Mr. Suresh Marahatta
REECHAM

Treasurer

Mr. Rupak Rajbhanda
Associate Professor
Tribhuvan University

Member

Dr. Madan Lal Shrestha
Deputy Director General
Department of Hydrology &
Meteorology

Member

Mrs. Mandira Shrestha
Water Resources Specialist
ICIMOD

Member

Mr. Lochan Devkota
Associate Professor
Tribhuvan University

Member

Mr. Om Raut
Freelance Consultant

Member

Mr. Ghanshyam Gautam
Engineer
Department of Road

Member

Mr. Mani Ratna Shakya
Senior Divisional
Meteorologist
Department of Hydrology &
Meteorology



Figure -1. The newly elected executive committee members of SOHAM-

Present SOHAM membership strength and status.

SOHAM-Nepal has the provision of following types memberships:

- General Member
- Life Member
- Honorary Member
- Institutional Member
- Associate Member

At present there are 106 members of the society. The distribution is shown in the following chart.

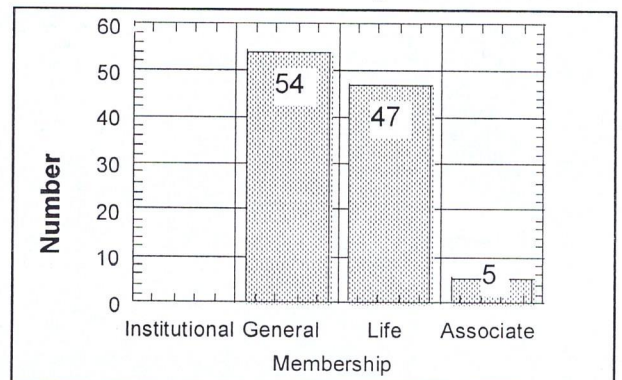


Figure 2. Membership Status of SOHAM-Nepal

Greetings by the newly elected chairman

It is indeed an opportunity of great pleasure for me to extend my heartfelt greetings to all SOHAM members and SOHAM well wishers on this occasion of the publication of first SOHAM-Nepal Newsletter. The establishment of SOHAM has paved the way to hydrologists and meteorologists to come forward and raise their concern in building the nation through their expertise, ideas and efforts, geared towards the development of Nepalese society.

I would also like to thank all the members of SOHAM-Nepal for their active participation and hope for continuous support to SOHAM. I also thank contributors and the Editorial Board for their first Newsletter.

Adarsha Prasad Pokhrel
Chairman,
SOHAM, Nepal

FEATURES

The July 23, 2002 Flood in Kathmandu

Kathmandu valley was flooded due to continuous rainfall on July 22 - 23, 2002. The maximum stage recorded at the river gauging station at Khokana was 6.02 meters. The corresponding flood depth at that site was 5.12 meters. The corresponding discharges is estimated to be 800 m³/s. Mean daily hydrograph for the period of July 17 to August 5, 2002 is given in Figure 1.

The Department of Hydrology and Meteorology has been monitoring the Bagmati river at Chovar from 1963 to 1985 and since 1991 at Khokana. Statistically, floods of 450 m³/s, 575 m³/s, 600 m³/s, 780 m³/s and 900 m³/s are estimated to be of the recurrence period of 2.33 years, 5 years, 10 years, 20 years and 50 years respectively. The flood peak of July 23, 2002 is found to be more than 20 years of recurrence period. The mean annual flood equals or exceeds once every 2.33 years in a river. The mean flood of Bagmati at Khokana is about 450 m³/s

Floods are natural and recurring events. Kathmandu valley a lake in the past, is prone to flooding and inundation due to its land-surface characteristics and quality of soils. Heavy or continuous rainfall exceeding the

absorptive capacity of soil caused all watercourses to overflow their banks onto adjacent lands. The flood of July 23, 2002 was of relatively long duration, so stream banks in the valley were inundated producing damages. Statistically, such floods are to be expected again in the future and therefore flood risk zones are to be delineated and aware citizens in the risk area.

Contribution by:

Jagat K. Bhusal

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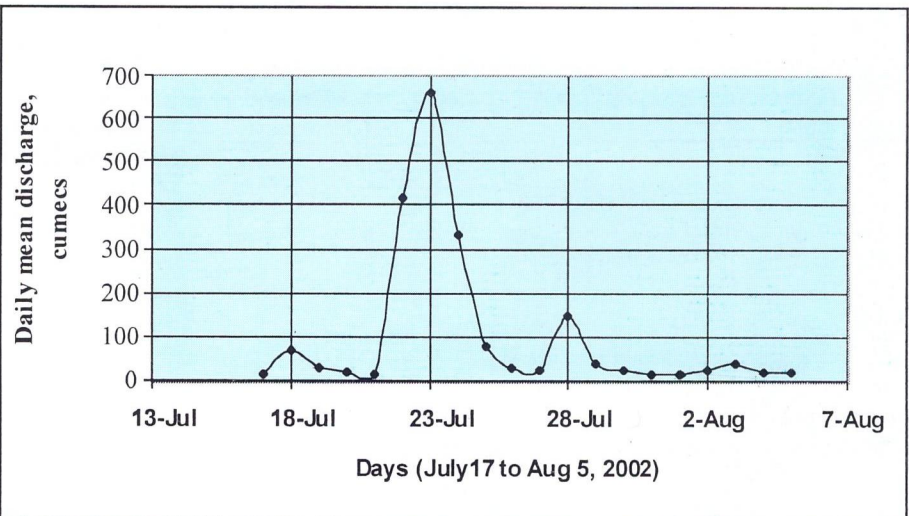


Figure 3. Flood Hydrograph of Bagmati River at Khokana (daily mean flows)

Chaotic monsoon -2002

The monsoon this year in the kingdom of Nepal was chaotic with the eastern and centre parts witnessing massive rain-induced catastrophes while the western part suffered severe drought.

This year, the monsoon commenced into Nepal from 15th June as compared to the normal onset date of 10 June.

The weather record obtained from various parts of the country for the monsoon period from June-Sept show that the monsoon was weak at the beginning. After remaining weak and mild in the month of June, the monsoon became active in the third week of July with shifting of the seasonal monsoon trough northward close to the foothills of the Himalayas. Under its influence, heavy downpour of rain occurred at various places in the kingdom especially in the eastern and central parts. Heavy rainfall exceeding 1000 mm was observed at many places in

the eastern and central parts of the kingdom in the month of July. At the same time mid western and far western parts of Nepal experienced dry spells causing severe drought conditions.

This year Kathmandu, Dhankuta Hetauda and Rajbiraj experienced highest 24 hrs rainfall exceeding their past records in the month of July.

In the month of August most parts of western region and some parts of central and eastern hilly regions experienced above normal rainfall. Rest of the kingdom received below normal rainfall. In the month of September, western hilly regions received above normal rainfall and rest of the kingdom observed below normal rainfall.

The monsoon retreated from Nepal from 30th September. The normal date of retreating of monsoon from Nepal is 23rd September.

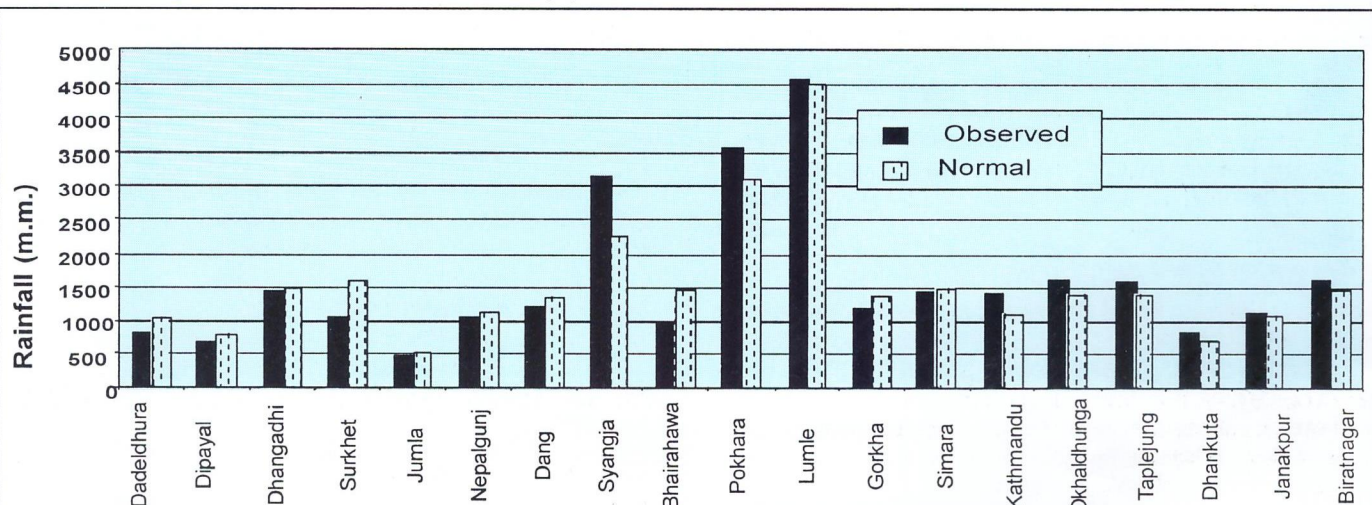


Figure 4. Total monsoon rainfall of 2002 recorded at various places of Nepal plotted against their normal monsoon rainfall.

Break of 14 years' rainfall in the Capital.

The massive downpour of monsoon rain on 23rd July 2002 in the Capital have recorded the highest 24 hours rainfall at various places in the capital. The meteorological station at Tribhuvan International Airport, Kathmandu recorded 177.0 mm rainfall, breaking past 14 years record. The last highest recorded rainfall in 24 hours in the Kathmandu was 124.4 mm on 28th October 1987.

Likewise, on the same day Thankot recorded 249.2 mm, Khokana, Lalitpur recorded 300.1 mm and Bhaktapur recorded 195.0 mm rainfall.

The heavy downpour of monsoon rain that continued throughout the day caused flooding in the valley's rivers and water logged at various places in the capital paralyzing the normal life

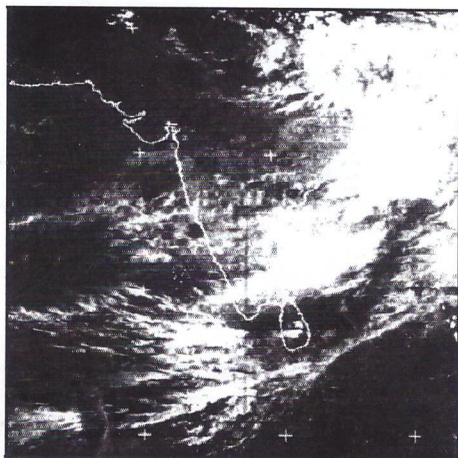


Figure 5. Massive cloud covering the Eastern, Central and some parts of the Mid-western Regions, as observed by satellite on 22 July, 2002

NEWS

Regional Workshop of National Meteorological Services of Least Developed Countries

Regional workshop on management- Strengthening capacity building of the national meteorological Services (NMS) of least developed country (LDCs) in Asia was held in Bangkok, Thailand from 16th to 18th October 2002. The Director General of DHM and President of SOHAM-Nepal participated in the workshop. The workshop was first event organized specially for National Meteorological Services of LDCs by the World Meteorological Organization as part of its effect to ensure that these services participate effectively in, and benefit fully from, WMO's programs and activities and contribute to the Socio-economic development challenges of their countries.

At present there are 49 countries who are classified as "Least Developed Countries" based on criteria established by the The United Nations's System., 9 of which are in Asia, namely Afghanistan, Bangladesh, Bhutan, Cambodia, Lao, People's Democratic Republic, Maldives, Myanmar, Nepal and Republic of Yemen

The Governing Board meeting of SMRC

Chairman of Governing Board of SAARC Meteorological Research Center (SMRC) and president of SOHAM, Nepal chaired a meeting held at SMRC, Dhaka recently from 8 to 10 October 2002. Important decision were taken such as :

- to extend cooperation in the field of meteorology between the SMRC and the SAARC Technical Committee on Environment, Meteorology and Forestry.
- to extend research activities on agro-meteorology

The Annual General Assembly of British Hydrological Society

The Annual General Assembly (AGA) of the British Hydrological society (BHS) was held on 08 September 2002 followed by the 8th BHS symposium from 9-11, September 2002 in Birmingham, UK. Mr. Adharsha Pokheral Director General of DHM and the president of SOHAM-Nepal attended the AGA and Symposium. Ms. Mandira Shrestha, Water Resources Specialist of ICIMOD and executive member of SOHAM also attended the symposium.

Training on Glacier Mass Balance measurements

A training on glacier mass balance measurement was held India from 25 September to 10 October 2002. All together 21 participants from three countries India, Nepal and Bhutan took part in the training. The main objectives of this training was to build capacity on mass balance measurement, to improve the understanding of the glacier and to bridge the knowledge gap among the HKH region countries.

Prior to this training, a preparatory workshop on development on manual training on glacier mass balance was held from 20 – 24 March 2001 in Kathmandu.

MOU between DHM and ICIMOD

With a view to exchange and share hydrological and climate data of Nepal, a memorandum of understanding (MOU) between Department of Hydrology and Meterology and ICIMOD was made on 7 August 2002.

The Regional Hydrological Data Centre (RHDC) is established at ICIMOD for this purpose. The RHDC team includes Mr. Rupak Rajbhandari, the executive member of SOHAM-Nepal.

ANNOUNCEMENTS

Training workshop on Monsoon

SAARC training workshop on summer monsoon and prediction techniques is going to be held in Kathmandu, Nepal from 17 – 20 December 2002. The training workshop will provide a unique opportunity to gain knowledge about the summer monsoon and to share knowledge and experience among the weather forecaster concerning the techniques of monsoon prediction at various places in Asia.

Seminar by SOHAM Nepal

SOHAM-Nepal will organize a two day seminar to commemorate its First Anniversary in March 2003. A detail circular will be distributed soon. For details please contact the General Secretary of the Society, Dr. Arun B. Shrestha. (+977-1-262-974).

SOHAM-Nepal Journal

SHOAM-Nepal is planning to publish a scientific journal, the Chief Editor of which will be Dr. Madan Lal Shrestha, Executive Member of the Society. All members are requested to contribute by submitting their articles. For details, please contact Dr. M.L. Shrestha (Tel. +977-1-262-9740).

SOHAN-NEPAL NEWSLETTER EDITORIAL BOARD

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