

Mid Year Report - India

Name of Region or Country : India

Name of Country Representative : B S Bora

Specific Accomplishments for the year

A. Society of Petroleum Geophysicists, India (SPG) is a SEG Section in India and has been very active in promoting excellence in Geophysics through various events and continuing education programmes in India. The society has its Headquarters at Dehradun and has a strong membership of 1200 Geophysicists (including student members). The society has 9 regional chapters and 9 student chapters. The activities are planned and executed under the leadership of Mr Apurba Saha, who is President of the Society. Highlights of various activities of the society are as follows:

1. DISC 2005

SEG's DISC 2005 was organized by SPG at Dehradun on 20th May, 2005. Mr Rodney Calvert conducted the course titled, 'Insights and Methods for 4D Reservoir Monitoring and Characterization'. About 40 participants from different parts of India, including students, attended the course.

2. DLP

DLP (EAGE) was organized at Ahmedabad on 23rd September, 2005. Mr Julien Meunier delivered his talk, 'Seismic Noise without Seismic Source. The programme was attended by about 75 participants including students.

3. Participation in SEG's Annual meeting

SPG, India participated in SEG's annual meeting as 'Silver Sponsor' to the event. SPG also sponsored the participation of its representatives Mr A.K.Sharma and Mr A K Sarkar in SEG's 75th Annual meeting at Houston during November, 2005. The meeting was also attended by Mr Apurba Saha, President SPG, India and Mr A G Pramanik, ex President of SPG, India. Mr Pramanik was conferred life membership of SEG for meritorious services to SEG.

SPG representatives participated in GAC meeting at Houston. On the issue of establishing overseas office of SEG, President SPG, offered to extend all possible help in opening overseas office of SEG in India.

4. Participation in EAGE

SPG' India sent its representatives, Mr D Jain and Mr. R S Tandon to attend EAGE's last annual meeting at Madrid during June 13th to 16th, 2005.

5. Organization of 6th Biennial International Conference and Exposition on Geophysics, 'Kolkata-2006'

One of the major events, organized by SPG, India was holding its 6th Biennial Conference and Exposition at Kolkata during 9th to 11th January, 2006. The conference was organized (for the first time) under enhanced level III + support from SEG. Mr Leon Thomsen, President Elect, SEG, Dr Mary Fleming, Executive Director, SEG and Mr

Gareth Williams, President EAGE actively participated in the conference. SEG also nominated following representatives in various committees for organization of the event.

- (i) Dr Mrinal Sen – Organisation Committee
- (ii) Mr Shivaji Dasgupta – Technical Programme Committee
- (iii) Mr Sudhakar Vasudevan – Exposition Committee

EAGE also nominated Mr Rutger Grass for Technical Programme Committee.

The highlights of the conference are as follows:

- (i) Attended by about 1300 delegates (As per closure report).
- (ii) Ten numbers of pre/post conference, continuing education programmes by distinguished Geophysicists were organized at Kolkata and other Indian cities.
- (iii) Over 284 technical presentations were made including 33 key note papers and invited talks were made during the conference. This included 63 overseas contributions. Total technical presentations were divided in to 130 oral and 154 poster presentations.
- (iv) 40 companies from 23 countries along with the technical societies like SEG, SPG, EAGE, APG, PETROTECH etc., participated in the exposition.
- (v) **The students Programme**

SPG, India makes a lot of efforts for the benefit of students. Special emphasis was laid on students programmes. Following programmes were specially organized for the Students

- **Special programme for school going children**

To inspire young students to appreciate the science of Geophysics and pursue it as professional career. About 240 students of a number of leading schools from Kolkata participated.

- **Students' Forum**

The programme was structured to understand the students' perception of the industry and their expectations. A panel of 18 students from 9 universities participated in an interesting interaction with a professional panel that included Dr A K Balyan, Director(HR), ONGC, Mr Leon Thomsen, President Elect SEG, Mr Gareth Williams, President EAGE and Mr A Saha, President SPG, India. The discussions brought out many interesting points related to internship, gender bias, update of curriculum etc. SPG, India is pursuing the issues on merit.

- **Students Quiz**

Students' quiz is a popular programme of SPG's conference, introduced for the first time during the last conference of SPG, India at Hyderabad in 2004. Nine teams from different academic institutes (Student chapters of SPG) participated in the quiz.

- **Job fair**

Job fair was organized for providing job avenues to Geophysics students. The idea is probably first time introduced in any professional conference. The programme was very successful. Quite a significant number of students were shortlisted for induction by ONGC (national E&P company of India), EMGS, Norway and Integrity Geo Services.

6. GAC Meeting

GAC meeting of SEG was held on 9th January, 2006. Mr Leon Thomsen, President Elect SEG, Mr Gareth Williams, President EAGE, Mr A Saha, President SPG, Mr A G Pramanik, Ex President SPG, Mr Peter Duncun, Ex President SEG were main participants.

The following issues were mainly discussed in the meeting:

- Overseas office of SEG

GAC members discussed the feasibility of opening an overseas office in India. Mr President SPG, India, on behalf of the society assured to extend all help and support, if SEG decides to open its overseas office in India. A proposal in this regard has been sent to GAC, which is likely to be discussed in the next meeting at Calgary.

- SEG-SPG Quiz

Mr Peter Duncan, on the lead of the students' quiz, proposed to organize a Global quiz contest for the students. It was deliberated that the first quiz may be organized during next SEG meeting at New Orleans.

- Promoting Student Chapters

It was deliberated in the meeting that SPG may provide even higher support in promoting the student sections through lectures/talks delivered by industry experts.

B. Student Sections:

SEG has six student sections in India viz., Andhra University, Banaras Hindu University, IIT Roorkee, NGRI, Kurukshetra University and IIT Mumbai. First five of these sections at present are also affiliated with SPG, India, who participated in the students programme organized by SPG during its 6th Conference.

The activities of the student sections in the conference are as under

- The student sections participated in the technical programmes. A total of fourteen poster presentations were made by nine student chapters of SPG, India, that include Five SEG student sections.
- The student sections participated in the Student's forum.

- The student sections also participated in the Students quiz. NGRI section won the quiz and Andhra university were the runners up. During GAC meet, there was a proposal that SPG quiz contest winners will be participating in SEG's global contest and SPG, India was requested to sponsor the visiting teams participation. SPG, India has agreed to the proposal.

A proposal forwarded to SEG by SPG, India for recognizing 'Indian School of Mines, Dhanbad' as a student section is pending. SPG is taking further initiatives to increase the numbers of student sections of SEG.

C. Membership:

The SEG membership is widely respected as a professional association and highly valued for technical enrichment through publications and continuing Education programme (DISC).

In a proposal for SEG's overseas office, submitted by SPG, India, It has been proposed that SPG, India can handle SEG membership in India and in neighboring countries like Bangladesh, Pakistan, Sri Lanka, Nepal, Bhutan, Afghanistan, Thailand, Vietnam etc., may be handled by SPG, India. It will be easier to process the membership cases at a faster rate for comparatively smaller group (India and neighboring countries). In our opinion, this will also enhance the satisfaction level of members and encourage more geophysicists to become member.

D. Oil and Gas Industry:

About 33% of India's requirement is fulfilled by domestic production. The major E&P companies operating in India are as follows:

- Oil and Natural Gas Corporation Limited (ONGC)
- Oil India Limited (OIL)
- Reliance Industries Limited (RIL)
- Cairn Energy India Ltd
- ENI Petroleum
- Gujrat State Petroleum Corporation (GSPC)
- British Gas

Under the new Exploration Liscencing Policy (NELP) of Government of India, Exploration blocks are offered for bidding by Ministry of Petroleum & Natural Gas for a fixed period (usually 7-8 years). 6th offer of NELP exploration blocks have been announced on 23rd February, 2006. The bids are to be submitted by 15th September, 2006.

Service Companies like Schlumberger, WesternGeco, Halliburton, CGG, PGS, Fugro, EMGS, Paradigm, Landmark Graphics etc are actively engaged in exploration activities in the country.

E. Role of Country Representatives and Regional Coordinators:

The country representative perceives his role in

- Expanding Membership base of SEG.
- To coordinate SEG's Continuing Education Programmes like DISC for maximum benefits of the members in the country.
- Interaction with Geophysical Societies in neighboring countries for promotion of SEG activities.

F. COUNTRY/REGION STATISTICS:

Number of SEG members (active, associate, student, etc.)

As per the information supplied by SEG, total number of SEG members in India is 974. The category wise break-up is as follows:

Active: 156
Associate: 146
Emeritus: 3
Global: 330
Life: 1
Student 338

SEG members receiving an SEG award

Life membership award was conferred upon Mr A G Pramanik in 2005 for exceptionally meritorious service to the society.

Sections:

Society of Petroleum Geophysicists, India (SPG), Dehradun

Student Sections:

1. Andhra University, Vishakhapatnam
2. Benaras Hindu University, Varanasi
3. Indian Institute of Technology, Roorkee
4. NGRI, Hyderabad
5. Indian Institute of Technology, Mumbai
6. University of Kurukshetra, Kurukshetra

Top 15 Oil and service companies doing business in this country

A. Oil Companies

1. Oil and Natural Gas Corporation Limited (ONGC), Headquarters at Dehradun
2. Oil India Limited, Duliajan
3. Reliance Industries Limited, Mumbai
4. Cairn Energy India Pty Ltd, Chennai
5. Gujrat State Petroleum Corporation (GSPC)
6. British Gas, Mumbai
7. ENI Petroleum
8. Essar Oil
9. Hindustan Oil Exploration Co (HOEC)

B. Service Companies

1. Schlumberger, New Delhi
2. Halliburton
3. WesternGeco, Mumbai
4. CGG Marine
5. PGS
6. Fugro Jason, Mumbai
7. Paradigm Geophysical, Mumbai
8. Landmark Graphics (A Halliburton Company)

Other geophysical societies: NIL

Major universities with geosciences programs

1. Kurukshetra University, Kurukshetra
2. Indian Institute of Technology, Roorkee
3. Banaras Hindu University, Varanasi
4. Indian Institute of Technology, Kharakpur
5. Indian School of Mines, Dhanbad
6. Cochin University of Science & Technology, Cochin
7. Andhra University, Visakhapatnam
8. Osmania University, Hyderabad
9. Indian Institute of technology, Mumbai

Percentage of oil production (compared to rest of world)

India produces about 1% of total world production.

Number of geophysicists graduating per year countrywide:

Approximately 160

Number of geophysicists (estimated) working in the country:

Approximately 1200

Geophysical challenges for country:

1. Sub Basalt Exploration for Hydrocarbons
2. Imaging in Foothills and Thrust belt areas
3. Deep water Exploration for Hydrocarbons

Is Web Access readily available for students and/or working geophysicists:

Yes