



SENATE OF PAKISTAN

REPORT OF THE SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY

For the Period
June 2012 to June 2014

Presented by
SENATOR PROF. SAJID MIR
Chairperson

ZARGHOONA SHABBIR
Section officer/Secretary Committee

Senator Prof. Sajid Mir

**The Honorable Chairperson Senate Standing Committee on
Science and Technology**



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PREFACE

As Chairman of the Standing Committee on Science and Technology, I feel pleasure to present this report of the Committee on the proceedings held during the period from 8th June 2012 to 30th June 2014. During this period the Committee held 10 meetings to discuss the various agenda items relating to the Ministry of Science and Technology and its subordinate organizations. The Committee made several useful recommendations, particularly on utilization of alternate energy resources, to the Ministry and its subordinate organizations.

The following organizations are working under the Ministry of Science and Technology for popularization, promotion and development of Science and Technology:-

1. Centre for Applied Molecular Biology (CAMB)
2. **COMSATS Institute of Information Technology**
3. Council for Work and Housing Research (CWHR)
4. National Institute of Electronics (NIE)
5. **National Institute of Oceanography (NIO)**
6. National University of Science & Technology (NUST)
7. **Pakistan Council for Renewable Energy Technologies (PCRET)**
8. Pakistan Council for Science & Technology (PCST)
9. Pakistan Council of Research in Water Resources (PCRWR)
10. **Pakistan Council of Scientific and Industrial Research (PCSIR)**
 - a) **National Physical and Standards Laboratory (NPSL)**
11. **Pakistan Engineering Council (PEC)**
12. Pakistan National Accreditation Council (PNAC)
13. **Pakistan Science Foundation (PSF)**
 - a) **Pakistan Museum of Natural History (PMNH)**
14. Pakistan Standards and Quality Control Authority (PSQCA)
15. Pakistan Technology Board (PTB)
16. STEDEC Technology Commercialization Corporation of Pakistan (Pvt) Ltd.

The Committee took briefings from the organizations mentioned above at numbers 2, 5, 7, 10, 11 and 13 including the Ministry of Science and Technology.

The Committee was not confined to taking briefings. It also visited PCSIR, National Physical and Standards Laboratory (NPSL), Pakistan Council for Renewable Energy Technologies (PCRET), Pakistan Science Foundation, Pakistan Museum of Natural History (PMNH) and National Institute of Oceanography (NIO), Karachi to get firsthand knowledge and analyze their research activities, innovations and performance.

I do value the keen interest, valuable contributions, suggestions and deliberations of the members of the Committee during the meetings and offer them my sincere thanks. I must also appreciate the tireless efforts of the Secretary Committee, Director Staff and APS in conducting meetings, recording minutes and to provide assistance in the preparation and presentation of this report.

Sd/-
(**Senator Prof. Sajid Mir**)
Chairman

Islamabad

EXECUTIVE SUMMARY

The Standing Committee on Science and Technology held ten meetings during the period from 8th June 2012 to 30th June 2014. The Committee tried to make its best efforts to monitor the assigned functions of the Ministry of Science and Technology and its subordinate organizations to achieve the vision of a better Pakistan. In this respect, visits of five attached departments were arranged to evaluate their performance and research / development activities.

The Senate Standing Committee on Science and Technology held meetings on the following issues and gave recommendations:-

- On June 8, 2012, the Committee elected Senator Prof. Sajid Mir as its Chairman in terms of Rule 175(1) of Rules of Procedure and Conduct of Business in the Senate, 2012. Senator Adnan Khan proposed the name of Senator Professor Sajid Mir as Chairman of the Standing Committee on Science and Technology which was seconded by Senator Farah Aqil and other Members. Thereafter, the Secretary Senate, Mr Iftikhar Ullah Babar announced the name of Senator Professor Sajid Mir as unanimously elected Committee Chairman. Senator Professor Sajid in his opening remarks thanked the Members for reposing their confidence in him. The Members reciprocated with warm sentiments and felicitations for the newly elected Chairman Committee.
- The Committee held its **2nd meeting** on 5th July 2012. The agenda before the Committee was to get briefing on the working and performance of the Ministry of Science and Technology. Mr. Akhlaq Tarar, Secretary, Ministry of Science and Technology briefed the Members in detail. Thereafter, Senator Karim Ahmed Khawaja suggested that considering the wide range of Pakistan coastal line, the Ministry should establish an Institute of Oceanography in Gwadar. To enhance Applied Molecular Biology, it was suggested to establish DNA tests laboratories in other Provinces of including FATA, AJK & Gilgit Baltistan. Like PMDC, Pakistan Engineering Council (PEC) should also register young engineers. To promote Marble Industry and exploration of other minerals, research laboratories should also be established in FATA. It was decided that a meeting would be arranged with Peshawar Chamber of Commerce and Industry to promote Marble Industry in Khyber Pakhtoon Khwa and FATA. The Committee recommended for establishing of 04 water testing laboratories in Balochistan instead of 02. The Ministry was directed to provide all necessary assistance to Provinces in establishing Forensic. It was suggested that research capacity for the supply of contaminated free water for the growth of vegetables and other crops should be enhanced.
- The Committee visited PCSIR Headquarters, Islamabad on 20th September, 2012. A detailed briefing was given to the Committee on the working and achievements of the PCSIR. The Committee decided to form a Sub-Committee under the convener ship of honorable Senator Karim Ahmed Khawaja to pursue financial issues of PCSIR with relevant forums and its early resolution. The issue would also be raised before the Prime Minister of Pakistan for attracting his attention to the problems being faced by these premier R&D institutions of the country. The Sub-committee may co-opt any suitable officer from PCSIR to assist them in raising the financial and other related issues with the competent forums. The other members of the sub-committee include: Senators Syed Mustafa Kamal and Mrs. Farah Aqil. It was decided that the sub-committee would also take the Government of Sindh on board to address the ongoing energy crisis, to avail the cheap services of PCSIR and to promote its valuable products in the industry. The Committee unanimously recommended that:-

- The Ministry of Science & Technology should establish a Marketing Cell to monitor the commercialization activities of S&T organizations in general and of PCSIR in particular.
- Federal Government would be requested to levy at least one percent (1%) R&D tax on all the industries. This amount would be utilized to achieve the R&D targets without facing any fiscal constraints and to establish a linchpin between the R&D institutions and local industries.
- On 23rd January, 2013 the Committee held its **4th Meeting** wherein the performance of the Pakistan Council for Renewable Energy Technology (PCRET) and its potential role in solving the present national energy crisis was discussed in detail. It was proposed that the projects presently introduced in PCRET needed to be discussed at higher level in every province so that Provinces could also avail services of this organization. Chairman Committee opined that their representatives should participate in the meetings so that they can get first-hand knowledge about the projects. The Committee decided to introduce the said schemes in the local market for joint venture purpose and for general awareness of the people, all the project may be published and Seminars/exhibitions be arranged. It was decided to invite Dr. Samar Mubarik Mand for a detailed briefing on Thar Coal Project to the Committee/Sub-Committee. On the basis of that briefing, the issue regarding speedy implementation of the Project would be taken up at the highest level. Coordination and consultation between the PECRET and the Provinces should be enhanced in future.
- In pursuance of the directions of the Chairman Committee, the Committee held its **5th meeting** on June 4, 2013 at PECRET. The provincial representatives of concerned departments from Punjab, Khyber Pakhtunkhwa, Balochistan, Sindh and Gilgit Baltistan were there. The Director General claimed that PCRET was capable of solving the problem of energy shortfall, subject to availability of sufficient funding and proper coordination amongst Government functionaries and the PCRET. The Committee stressed upon the close coordination and cooperation among the Ministry of Water and Power, Ministry of Science and Technology, provinces and the PCRET. DG PECRET invited the Sindh Energy Department, Sindh Livestock Department to work with them on electricity production project. It was pointed out that Bhains Colony of Karachi could be a valuable source in achieving the objective. The Committee recommended that for the commercialization of Bio-Gas plants, the Sindh Energy and Livestock Departments should come up with a concrete plan to make the most out of it. Meanwhile, the Secretary assured the committee that all possible support would be extended in this regard. The Committee also emphasized that there should be proper linkage between provincial energy departments and PCRET to achieve maximum benefit from PCRET's research work.
- The Committee in its **6th meeting** on May 14, 2013, discussed the Report of the Sub-Committee constituted in its meeting held on 20th September, 2012. The TORs of the Sub-Committee were to pursue the financial issues of PCSIR with relevant forums for its early resolution; to take on board the Government of Sindh to avail the services of PCSIR and to promote its valuable products in the industries; to promote joint collaborative efforts between different R&D sectors working on Thar Coal; and, to clarify TORs of various research and development Institutions/Departments working under the Ministry of Science and Technology. The main Committee was informed that the Sub-Committee held two meetings on 1st and 21st February 2013. The financial

issues of the PCSIR were discussed with the Ministry of Finance. They gave assurance to the Ministry of Science & Technology to release a sum of Rs.605.945 million against the demand of Rs.735 million. In this respect, a sum of Rs.303 million (as 3rd installment) had already been released and the remaining amount of Rs.303 million would be given in the 4th quarter of the current fiscal year 2012-13.

- On **1st February, 2013** the Sub-Committee visited Karachi. Briefing was given by the team of PCSIR on Thar Coal Project and other products which included: Successful demonstration of Underground Coal gasification process for household gas and electricity generation as a fuel; Fischer-troph process for production of diesel from singas; Design and Development of Gasifier; Production of Coal Briquettes; and, Testing /analysis of coal. It was decided to get a detailed briefing from Dr. Samar Mubarik Mund regarding Thar Coal Project and its comparative analysis with the PCSIR Thar Coal Project. On **21-02-2013**, a detailed briefing was given by Dr. Samar Mubarik Mund to the members of the Sub-Committee in Islamabad. He described the work carried out at Thar to utilize the bulk indigenous coal reserves worth US \$ 25 trillion. The Sub-Committee recommended that the Ministry of Science & Technology should extend its best possible efforts in strengthening research and development institutions. The Sub-Committee further recommended that the Government of Sindh and the Federal Government should bring forth all possible measures to ensure timely allocation of funds for the speedy execution of the projects in the national interest. Such projects needed to be given top priority. It was added that to resolve the prevailing power generation problems, all possible collaborative efforts were indispensable in the field of lignite coal utilization to establish plants in order to meet domestic/commercial requirements of electricity and liquid fuel. The main Committee endorsed the report of the sub-committee and directed to send it to the Ministry of Science and Technology for their consideration. The Committee also recommended that Thar Coal being an asset of Pakistan should be handled carefully. A joint collaborative work between the PCSIR and the Ministry of Water and Power should be done on regular basis. The Committee also recommended that the Ministry of Science & Technology, PCRET and Provincial departments should work in unison for the development of Balochistan. Better/speedy and affordable energy conservation methods needed to be adopted.
- The Committee held its **7th meeting** on June 27, 2013 to take into account the performance of the Pakistan Science Foundation. The Committee stressed upon enhancing media role in promoting science culture in the country. The chair stressed upon the need of improved media campaign. It was also stressed that the Pakistan Science Foundation should establish science museums and science centers at provincial level in collaboration with Provincial Education Ministries. Adequate funds should be provided for the development projects of Pakistan Science Foundation.
- The Committee held its **8th meeting** on 24th October, 2013 at Pakistan Museum of Natural History to analyze the performance and achievements of the Museum. The Committee visited each and every segment/section of the Museum and applauded the work done by the Museum Management. The Committee appreciated the efforts of PMNH to develop such a state of the art display to attract the visitors. The Committee recommended that the required funds should be allocated to the Museum for construction of the remaining blocks as per original plan. The print and electronic media should play their role in generating awareness amongst the masses to increase the number of visitors.

- The Committee held its **9th meeting** on 8th January, 2014 and considered the working and performance of the COMSATS Institute of Information Technology. The Rector of COMSATS Mr. Haroon Rashid briefed the Committee about their performance, structure, campuses, mission/vision, dual degree programmes, year wise student enrolment, graduate/PhDs produced, total faculty, student financial aid/services, national awards, national and international linkages, virtual campus and its smooth governance. The Committee noted with great satisfaction that the Institute has won 1st Federation of Pakistan Chambers of Commerce and Industry Achievement Award for its outstanding services in the category of Education and Training. Besides this award the CIIT ranked 1st in Pakistan in Computer Science/IT, 2nd in Pakistan in International Research Publications and 4th in Pakistan in Large Universities League while it earned an overall three stars rating out of five star and a perfect score of five out of five in teaching, facilities and engagement, announced in Seoul on 1st November 2013. After detailed briefing and deliberations, the Committee applauded the performance of COMSATS and recommended that the network of the Institute may be expanded to all the provinces.
- The Committee held its **10th meeting** on 15th January, 2014 at Parliament House, Islamabad. The agenda before the Committee was on working and performance of the Pakistan Engineering Council. The Committee appreciated the CPD activities being performed by PEC. The Committee recommended that the energy audit should be done for all the government buildings through which the PEC succeeded in decreasing their energy usage by 4 times. Keeping in view the importance of Washington Accord the Committee recommended that PEC should strive hard to increase their CPD activities, quality improvement of the university programs and Washington Accord's set bench marks to gain full membership of the Washington Accord. The Committee showed satisfaction on the performance of PEC and wish them good luck for their future goals
- The **11th meeting** of the committee was held on 26th May, 2014 at National Institute of Oceanography (NIO), Karachi. The Director General (Dr. Monawwar Saleem) apprised the committee about the establishment of NIO in 1982 in the context of Pakistan maritime zone and the work jurisdiction of the institute along the 1000 Km coast-line of Pakistan. The Committee unanimously recommended that a fresh comprehensive study on the potential of tidal energy from the creek waters should be undertaken and coordination mechanisms among the agencies working in the maritime zone should also be improved. The Committee also emphasized on the need of revival of marine research vessel project. Services reforms in NIO may also be introduced for the appreciation and recognition of services of scientists by providing financial and promotional incentives. The Committee observed that main international linkages of NIO were with China. A number of programmes were being pursued with China based organizations for capacity building and collaboration in research studies. Pakistan being the signatory of UN Convention was pursuing with UN Commission on Limits of the Continental Shelf (CLCS) for extension of limits of Continental Shelf on the basis of geophysical evidences and in accordance with the Law of the Sea. This will entitle Pakistan to add an area of 50,000 sq km in the existing EEZ of Pakistan providing a great potential of exploiting marine sources for boosting Pakistan's economy.

Sd/-
(**Senator Prof. Sajid Mir**)
Chairman

Islamabad

**COMPOSITION OF SENATE STANDING COMMITTEE ON SCIENCE
AND TECHNOLOGY**

| Sr. No. | Name | |
|----------------|-------------------------------|----------|
| 1. | Senator Prof. Sajid Mir | Chairman |
| 2. | Senator Adnan Khan | Member |
| 3. | Senator Karim Ahmed Khawaja | Member |
| 4. | Senator Pervaiz Rashid | Member |
| 5. | Senator Almas Parveen | Member |
| 6. | Senator Naseema Ehsan | Member |
| 7. | Senator Farah Aqil | Member |
| 8. | Senator Hidayat Ullah | Member |
| 9. | Senator Khalida Parveen | Member |
| 10. | Senator Mufti Abdul Sattar | Member |
| 11. | Senator Hilal-ur-Rehman | Member |
| 12. | Senator Taj Haider | Member |
| 13. | Senator Tanveer-ul-Haq Thanvi | Member |

PROFILE OF THE SENATORS



PROF. SAJID MIR CHAIRMAN

Prof. Sajid Mir is a Senator from Punjab Province (12-03-2009 to 11-03-2015). Since 1992, he is President of Markazi Jamiat Ahl-e-Hadith (Pakistan) – an independent politico-religious party allied to Pakistan Muslim League (N). He is a Member (the only one from Pakistan) of World Muslim League (Rabita Aalam-e-Islami), Makkah since 2012. He holds the portfolio of Chairman Senate Standing Committee on Science & Technology. He is also a Member of the following Standing/Functional Committees:-

Government Assurances
Rules of Procedure and Privileges
Overseas Pakistanis

This is his third term in the Senate. Previously, he remained Senator from 21-03-1994 to 11-10-1999 and 12-03-2003 to 11-03-2009. He is a learned religious scholar and a veteran politician. He held the portfolio of Chairman Standing Committee on Social Welfare and Special Education from 2009 to 8-4-2011. He was also Chairman of Senate Standing Committee on Religious Affairs and Minorities Affairs from 1994 to 1999.

He did Masters in English and Islamic Studies from Punjab University. He also did Fazil Dars-e-Nizami in 1971. He got many academic and extra-curricular distinctions during his studies. He is a known teacher of English, Urdu and Arabic.

He visited several countries including Belgium, Holland, Switzerland, UK, USA, Canada, Italy, France, Nigeria, Denmark, Ireland, Spain, Greece, Saudi Arabia, Kuwait, UAE, Malaysia, Sri Lanka, Indonesia etc. to attend several conferences and workshops as Head of Markazi Jamiat Ahl-e-Hadith/Member of Parliamentary delegations. In addition, he is the author of several books and writer of a number of articles in various magazines and newspapers on Islamic, political and social issues.

Publications:

1. Christianity: Study and Analysis (Arabic, Urdu), published by Darussalaam International Publishing House, Riyadh, Saudi Arabia.
2. Revision of Translation and Notes on “Sahih Muslim”, published by Sheikh Muhammad Ashraf, Lahore.
3. Revision of Translation of “Ma-Za Khasiral Alam Min-in-Hitatil Muslimin” by S. Abdul Hassan Ali Nadvi.
4. Translation (from Arabic into English) of “Al-Hizb-ul-Maqbool” (a popular book of supplications and prayers) Sheikh Muhammad Ashraf, Publishers, Lahore.

ADNAN KHAN



Position: Senator
Party Affiliation: Pakistan People's Party Parliamentarian (PPP-P)
Seat Description: Technocrats Including Ulema
Gender: Male
Province: Khyber Pakhtunkhwa
Contact Detail Office Number: 051-2291491, 2212934
Home Number: 051-2291491, 2212934
Mobile Number: 0300-5010786
Email: adnan.khan@senate.gov.pk
Local Address: House No. 23, Main Sumbal Road, F-10/2, Islamabad.
Permanent Address: House No. 497, St-9, F-10/2, Islamabad.

Committee(s):

- Science and Technology
- Commerce and Textile Industry
- Industries and Production
- Kashmir Affairs & Gilgit Baltistan

Tenure: March 2009 to March 2015

Achievements:

- Masters in Business Administration (M.B.A)
- Business Chief Executive to date
- Private Marketing Consultation
- Marketing Consultant 1989 to date

KARIM AHMED KHAWAJA



Mr. Karim Ahmed Khawaja

Position: Senator
Party Affiliation: Pakistan People's Party Parliamentarian (PPP-P)
Seat Description: General
Gender: Male
Province: Sindh
Contact Detail: Home Number 021-32231122
Mobile Number : 0301-2265637
Gender: Male
Local Address: J-002, Parliament Lodges, Islamabad.
Permanent Address: D-7, Hashoo Garden, Garden East, Chestnest street,
Opp to Zoo Garden, East Karachi.

Committee(s):

- National Health Services, Regulations and Coordination
- Science and Technology
- Commerce and Textile Industry
- Senate Library Committee
- Defence Production

Tenure: March 2012 to March 2018

PERVAIZ RASHID



Federal Minister for Information and Broadcasting

Position: Senator
Party Affiliation: PML(N)
Seat Description: General
Gender: Male
Province: Punjab
Home Number : 042-35732699
Mobile Number : 0323-4132708
Email : pervaiz.rashid@senate.gov.pk
Local Address : R # 5, Punjab House, Islamabad.
Permanent Address : 215-HH, DHA, Lahore.

Committee(s):

- Science and Technology
- Interior and Narcotics Control
- Overseas Pakistanis and Human Resource Development
- Functional Committee on Human Rights

Tenure: March 2009 to March 2015

ALMAS PARVEEN



Position: Senator
Party Affiliation: Pakistan People's Party Parliamentarian (PPP-P)
Seat Description:
Gender: Female
Province : Sindh
Home Number : 021-2533878
Mobile Number : 0333-2238715
Email : almas.parveen@senate.gov.pk
Local Address : E-211, Parliament Lodges, Islamabad.
Permanent Address : H.No.2431, Gulistan Baloch House, Shah Baig Line, Moosa Chaudhry Road, Lyari, Karachi.

Committee(s):

- Functional Committee on Government Assurances
- National Health Services, Regulations and Coordination
- Science and Technology
- Information, Broadcasting and National Heritage

Tenure: March 2009 to March 2015

NASEEMA EHSAN



Position: Senator
Party Affiliation: Balochistan National Party Awami (BNP-A)
Seat Description: Women
Gender: Female
Province : Balochistan
Mobile Number : 0300-3817993
Local Address : C-410, Parliament Lodges, Islamabad.
Permanent Address : 54/ D Zarghoon Road Quetta .

Committee(s):

- Science and Technology
- Ports and Shipping
- National Food Security and Research
- Planning and Development

Tenure: March 2012 to March 2018

FARAH AQIL



Position: Senator
Party Affiliation: Awami National Party (ANP)
Seat Description: Women
Gender: Female
Province : Khyberpakhtunkhwa
Home Number: 091-5270182, 5274304
Mobile Number : 0301-8593029
Email : farah.aqil@senate.gov.pk
Local Address : E-402, Parliament Lodges, Islamabad.
Permanent Address : Greens Hotel, Sadder Road, Peshawar Cantt.

Committee(s):
- Inter-Provincial Coordination (**Chairperson Committee**)
- National Health Services, Regulations and Coordination
- Science and Technology
- Information, Broadcasting and National Heritage

Tenure: March 2009 to March 2015

Achievements:

Qualification : M.A (Psychology)

Additional Information:

-MPA (ANP) 2002-2001
-APWA Peshawar a.sec.2006-2008
-Legislative Watch Group (Aurat Foundation) Member 2005-2008
-Hamdard Shoora Group warden (Ladies wing) pf civil defense

HIDAYAT ULLAH



Position: Senator
Party Affiliation: Independent (IND)
Seat Description: General
Gender: Male
Province : FATA
Office Number : 051-9212744
Home Number: 0942-240303
Mobile Number : 0300-5909029
Email : Nil
Local Address : H.No.23, Minister Enclave, Islamabad.
Permanent Address : Village and Post Office Bara Nawagai Bajaur Agency.

Committee(s):

- Rules of Procedures and Privileges
- Functional Committee on Government Assurances
- Science and Technology
- Functional Committee on Human Rights

Tenure: March 2012 to March 2018

KHALIDA PARVEEN



Position: Senator
Party Affiliation: Pakistan People's Party Parliamentarian (PPP-P)
Seat Description: Women
Gender: Female
Province : Punjab
Office Number : 051-9223526
Mobile Number : 0300-5052741,0336-6080117
Local Address : E-112, Parliament Lodges, Islamabad.
Permanent Address : Madni Town, Kot Addu(City) District, Muzaffar Garh.

Committee(s):

- National Health Services, Regulations and Coordination
- Science and Technology
- Water and Power
- Functional Committee on Problems of Less Developed Areas

Tenure: March 2012 to March 2018

MUFTI ABDUL SATTAR



Position: Senator
Party Affiliation: Jamiatul-Ulema-e-Islam (F) (JUI-F)
Seat Description: Technocrats Including Ulema
Gender: Male
Province : Balochistan
Office Number : 051-9222434
Mobile Number : 0301-3760588 0333-7988238
Local Address : A-006, Parliament Lodges, Islamabad.
Permanent Address : : Jamia Mifta-ul-Uluma, Mastung.

Committee(s):

- Science and Technology
- States and Frontier Regions
- Overseas Pakistanis and Human Resource Development
- Kashmir Affairs & Gilgit Baltistan

Tenure: March 2012 to March 2018

HILAL-UR-REHMAN



Position: Senator
Party Affiliation: Independent (IND)
Seat Description: General
Gender: Male
Province : FATA
Office Number :
Home Number:
Mobile Number : 0346-8889788, 0333-9207323
Local Address : H-206, Parliament Lodges, Islamabad.
Permanent Address : H.No. 29-A, St-5-A, Momin Town, Dalazak Road,
Peshawar.

Committee(s):

- Science and Technology
- States and Frontier Regions
- Planning and Development
- Kashmir Affairs & Gilgit Baltistan

Tenure: March 2012 to March 2018

TAJ HAIDER



Position: Senator
Party Affiliation: PPPP
Seat Description: Technocrats including Ulema
Gender: Male
Province : SINDH
Home Number: 021-99203658-60
Mobile Number : 0302-2248840

Committee(s):

- Science and Technology
- Ports and Shipping
- Defense Production

Tenure: March 2012 to March 2018

TANVEER-UL-HAQ THANVI



Position: Senator
Party Affiliation: Mutahidda Qaumi Movement (MQM)
Seat Description: General
Gender: Male
Province : SINDH
Home Number: 021-32781156
Mobile Number : 0323-2006419

Committee(s): - Science and Technology
- Functional Committee on Problems of Less Developed Areas

Tenure: March 2012 to March 2018

**Meetings of the Senate Standing Committee
On Science and Technology (pictorial view)**



SENATOR PROFESSOR SAJID MIR, PRESIDING OVER A MEETING OF THE SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY, AFTER BEING ELECTED AS CHAIRMAN OF THE COMMITTEE , AT PARLIAMENT HOUSE ISLAMABAD ON JUNE 08, 2012.



SENATOR PROFESSOR SAJID MIR, CHAIRMAN SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY PRESIDING OVER A MEETING OF THE COMMITTEE AT PARLIAMENT HOUSE ISLAMABAD ON JULY 05, 2012.



SENATOR PROFESSOR SAJID MIR, CHAIRMAN SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY PRESIDING OVER A MEETING OF THE COMMITTEE AT PAKISTAN COUNCIL FOR SCIENCE AND INDUSTRIAL RESEARCH (PCSIR), ISLAMABAD ON SEPTEMBER 20, 2012.



SENATOR PROFESSOR SAJID MIR, CHAIRMAN SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY PRESIDING OVER A MEETING OF THE COMMITTEE AT PARLIAMENT HOUSE ISLAMABAD ON JANUARY 23, 2013.



SENATOR KARIM AHMED KHWAJA, CONVENER SUB-COMMITTEE OF THE SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY PRESIDING OVER A MEETING OF THE SUB- COMMITTEE AT PARLIAMENT HOUSE ISLAMABAD ON FEBRUARY 01, 2013.



SENATOR KARIM AHMED KHWAJA, CONVENER SUB-COMMITTEE OF THE SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY PRESIDING OVER A MEETING OF THE SUB- COMMITTEE AT PARLIAMENT LODGES ISLAMABAD ON FEBRUARY 21, 2013.



***SENATOR PROFESSOR SAJID MIR, CHAIRMAN SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY
PRESIDING OVER A MEETING OF THE COMMITTEE AT PARLIAMENT HOUSE ISLAMABAD ON MAY 14, 2013.***



***SENATOR PROFESSOR SAJID MIR, CHAIRMAN SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY
PRESIDING OVER A MEETING OF THE COMMITTEE AT PAKISTAN COUNCIL OF RENEWABLE ENERGY TECHNOLOGY
(PCRET), ISLAMABAD ON JUNE 04, 2013.***



SENATOR PROFESSOR SAJID MIR, CHAIRMAN SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY, PRESIDING OVER A MEETING OF THE COMMITTEE AT HEAD OFFICE PAKISTAN SCIENCE FOUNDATION, ISLAMABAD ON JUNE 27, 2013.



SENATOR PROFESSOR SAJID MIR, CHAIRMAN SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY PRESIDING OVER A MEETING OF THE COMMITTEE AT PAKISTAN MUSEUM OF NATURAL HISTORY, ISLAMABAD ON OCTOBER 24, 2013



SENATOR PROFESSOR SAJID MIR, CHAIRMAN SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY AND MEMBERS OF THE COMMITTEE BEING BRIEFED ABOUT PAKISTAN MUSEUM OF NATURAL HISTORY, ISLAMABAD ON OCTOBER 24, 2013.



SENATOR PROFESSOR SAJID MIR, CHAIRMAN SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY, PRESIDING OVER A MEETING OF THE COMMITTEE AT HEAD OFFICE PAKISTAN SCIENCE FOUNDATION, ISLAMABAD ON JANUARY 08, 2014.



SENATOR PROFESSOR SAJID MIR, CHAIRMAN SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY, PRESIDING OVER A MEETING OF THE COMMITTEE AT PARLIAMENT HOUSE, ISLAMABAD ON JANUARY 15, 2014.



PROF. SAJID MIR, CHAIRMAN STANDING COMMITTEE ON SCIENCE & TECHNOLOGY PRESIDING OVER A MEETING AT NATIONAL INSTITUTE OF OCEANOGRAPHY, KARACHI ON 26TH MAY, 2014



D.G. NATIONAL INSTITUTE OF OCEANOGRAPHY PRESENTING SHIELD TO PROF.SAJID MIR, CHAIRMAN STANDING COMMITTEE ON SCIENCE & TECHNOLOGY PRESIDING ON 26TH MAY, 2014



SENATE STANDING COMMITTEE ON SCIENCE & TECHNOLOGY VISITING LABS OF NATIONAL INSTITUTE OF OCEANOGRAPHY, KARACH ON 26TH MAY, 2014

MINUTES OF THE COMMITTEE MEETINGS

SENATE SECRETARIAT

MINUTES OF THE MEETING OF THE STANDING COMMITTEE ON SCIENCE & TECHNOLOGY HELD ON 8TH JUNE, 2012 AT PARLIAMENT HOUSE, ISLAMABAD

A meeting of the Senate Standing Committee on Science & Technology was held on 8th June, 2012 at 1630 hours in Committee Room No.4, Parliament House, Islamabad to elect its Chairperson as contemplated by Rule 184(1) of the Rules of Procedure and Conduct of Business in the Senate, 2012. The following members attended the meeting:

| | | |
|----|-----------------------------|--------------------------|
| 1. | Senator Prof. Sajid Mir | Chairman (Newly Elected) |
| 2. | Senator Adnan Khan | Member |
| 3. | Senator Karim Ahmed Khawaja | Member |
| 4. | Senator Naseema Ehsan | Member |
| 5. | Senator Farah Aqil | Member |
| 6. | Senator Mufti Abdul Sattar | Member |
| 7. | Senator Hilal-ur-Rehman | Member |

2. The meeting started with recitation from the Holy Quran followed by a formal introduction.

3. At the outset, Secretary Senate Mr. Iftikhar Ullah Babar explained the very purpose of the meeting of the Committee i.e. the election of Chairman as contemplated by Rule 184(1) of the Rules of Procedure and Conduct of Business in the Senate, 2012. In this regard, the Rule 175(1) of the said rules requires that the Chairman of each Committee shall be elected by the Committee from amongst its members.

4. Thereafter, Senator Adnan Khan proposed the name of Senator Prof. Sajid Mir as Chairman of the Standing Committee on Science & Technology. This proposal was seconded by Senator Farha Aqil and no other proposal/candidature came up.

5. Secretary Senate, accordingly, announced the election of Senator Prof. Sajid Mir as Chairman of the Committee and requested him for taking over the Committee, for convening the proceedings, from thereon being the Chairman of the Committee.

6. Senator Prof. Sajid Mir in his opening remarks expressed his thanks to the members of the Committee for reposing their confidence in him

7. In response to the opening remarks of the Chairman Committee, Senator Mufti Abdul Sattar, Senator Naseema Ehsan, Senator Karim Ahmed Khawaja, Senator Farah Aqil, Senator Adnan Khan and Senator Hilal-ur-Rehman expressed their felicitations to the newly elected Chairman of the Committee. In addition to members of the aforementioned Committee; Chief Whip, Senator Islamuddin Shaikh and Leader of the Opposition, Senator Mohammad Ishaq Dar, who were present there as observers, also felicitated Senator Prof. Sajid Mir on his election a Chairman Committee.

8. The meeting ended with vote of thanks and felicitations to the newly elected Chairman.

Sd/-

(Husnain Ahmad)
DG/Secretary Committee

Sd/-

(Prof. Sajid Mir)
Chairman
Standing Committee on Science & Technology

SENATE SECRETARIAT

MINUTES OF THE MEETING OF THE STANDING COMMITTEE ON SCIENCE & TECHNOLOGY HELD ON 5TH JULY, 2012 IN COMMITTEE ROOM NO.4, PARLIAMENT HOUSE, ISLAMABAD

A meeting of the Senate Standing Committee on Science & Technology was held on 5th July, 2012 at 1400 hours in Committee Room No.4, Parliament House, Islamabad under the Chairmanship of Senator Prof. Sajid Mir:

2. The agenda before the Committee was as under:-

- i) Briefing on the working of the Ministry of Science & Technology.
- ii) Any other item with permission of the Chair.

3. The following members of the Committee attended the meeting:

| | | |
|----|-----------------------------|--------|
| 1. | Senator Mufti Abdul Sattar | Member |
| 2. | Senator Karim Ahmed Khawaja | Member |
| 3. | Senator Naseema Ehsan | Member |
| 4. | Senator Hidayatullah | Member |
| 5. | Senator Farah Aqil | Member |

4. The meeting started with recitation from the Holy Quran by Senator Mufti Abdul Sattar.

5. Senator Prof. Sajid Mir, Chairman, Standing Committee on Science & Technology in his introductory address stated that he has the honour and privilege to welcome his colleagues, Senators sitting on his right hand. At the same time officers of Ministry of Science & Technology. As today's meeting is the first meeting of the Standing Committee since its formation, therefore, the Committee would have an overview of the working of the Ministry and its allied organizations. Subsequently the Committee would also have visits of its allied organizations. Prior to 18th Constitutional Amendment, the Ministry was called as Ministry of Education, Science & Technology. Post 18th Amendment, Ministry of Education was devolved to the Provinces and it was renamed as Ministry of Science & Technology. Thereafter, he invited Secretary, Ministry of Science & Technology to brief the Committee.

6. Mr. Akhlaq Ahmed Tarar, Secretary Ministry of Science & Technology briefed the Committee on power point. He gave an elaborate overview of working of Ministry of Science & Technology and its subordinate organizations.

7. At the end of presentation, the Chairman Standing Committee on Science & Technology appreciated Secretary Ministry of Science & Technology for comprehensive presentation of the working of the Ministry and invited the Members of the Committee to ask questions with regard to the presentation. Thereafter, questions and answers session was held.

8. Senator Karim Ahmed Khawaja observed that coastal line of the country is vast which is spread over hundred of miles between Karachi (Sindh) and Gawadar, Jiwani (Balochistan). Therefore, Ministry of Science & Technology should establish an Institute of Oceanography in Gawadar (Balochistan) also. Sea has penetrated into two (02) districts of Sindh. There were

seventeen (17) creeks in the sea which have disappeared. With the efforts of the Ministry, boundaries of Pakistan in the sea have enhanced to the limits of 240 nautical miles. He pointed out fishing trollers of India often encroach our sea boundaries and asked Secretary Ministry of Science & Technology as to why they violate and encroach sea boundaries of Pakistan. Furthermore, Applied Molecular Biology is growing field internationally. He suggested for establishing DNA tests laboratories in other provinces of Pakistan including FATA, AJK and Gilgit Baltistan. He also suggested that like PMDC, Pakistan Engineering Council (PEC) should also register young engineers. He appreciated the role of Ministry of Science & Technology with regard to research works in the country and asked Secretary Ministry of Science & Technology about the research capacity of organizations working under the Ministry.

9. Secretary Ministry of Science & Technology responded and informed the Committee that 2 to 3 projects under NIO outstation area already working in Gawadar (Balochistan). The allocation of research work of organizations working under the Ministry is 0.61% whereas allocations of other regional countries i.e. India, Bangladesh and Srilanka are 1.5 to 02%. China has reached to the tune of 03% and South Korea has the capacity of 06%. As far as encroachment of Indian fishing trollers into Pakistani nautical boundary is concerned that happens because of Sir Creek dispute as de-limitation of boundaries between the two countries has not been carried out so far.

10. Responding to another question asked by Senator Karim Ahmed Khawaja about issuance of accreditation to Pathological Laboratories, D.G., Pakistan National Accreditation Council (PNAC) informed the Committee that six (06) Pathological Laboratories have been accredited by the Council. Accreditation Council (PNAC) informed the Committee that six (06) Pathological Laboratories have been accredited by the Council.

11. Senator Mufti Abdul Sattar observed that in Balochistan, there is no Water Testing Laboratory. Samples are sent to Karachi for tests. He suggested for establishing of 04 laboratories in Balochistan instead of 02. He further observed that although Mirani Dam has been constructed to supply water to the people of Balochistan, but they have been deprived from it.

12. Responding to the question asked by the Chairman, Standing Committee on Science & Technology for establishing of Forensic Laboratories in the Provinces, Secretary Ministry of Science & Technology responded that post 18th Constitutional Amendment, it's a provincial subject and Punjab has established such laboratory in Lahore. However, Ministry of Science & Technology is ready to provide necessary assistance to the other Provinces.

13. While appreciating the presentation by Secretary Ministry of Science & Technology, Senator Hidayatullah observed that there is no research laboratory in FATA. People of the area have been totally neglected. There is no linkage between the Ministry and FATA. He suggested to promote Marble Industry and exploration of other minerals, research laboratories should be established in FATA. Secretary Ministry of Science & Technology responded that the Ministry extends its support to the Provinces. In this regard, Peshawar based Mineral Testing Laboratory has mandate for survey, exploration and exploitation of mineral resources including FATA. However, the observation of honourable Senator has been noted. During the visit of the Committee to Peshawar, a meeting with Peshawar Chamber of Commerce and Industry will be arranged as well as Islamabad to promote Marble Industry, he assured the Committee.

14. Senator Farah Aqil observed that in Khyber Pakhtunkhwa Province, contaminated water for growing vegetables is being used which is a life threat to human being and causing diseases. She asked Secretary Ministry of Science & Technology as to why the Ministry has not established water filtration plants for purification of such water and suggested that research

capacity for the supply of contaminated free water for the growth of vegetables and other crops should be enhanced. She further stated that a vast area of land spread over hundred of miles is lying barren in the country due to water logging and asked Secretary Ministry of Science & Technology if any research laboratory exists under the Ministry to make such land useful for cultivation. Furthermore, below standard packed food items like milk, meat, beef etc are being supplied in the country, which are affecting healthcare. She asked Secretary Ministry of Science & Technology, if any, preventive measures by Pakistan Standards and Quality Control Authority (PSQCA) have been taken? Secretary Ministry of Science & Technology responded that the issues raised by Madam Senator area very serious. First two (02) relate to the Ministry of National Food Security and Research, which has been created under devolution plan (Post 18th Constitutional Amendment). Pakistan Agriculture Research Council (PARC) works under the said Ministry and researches on agriculture side. As far as preventive measures regarding food items are concerned, PSQCA and PCRWR collect samples and compile reports. Now Ministry of Science & Technology has issued directions to the said organizations for sending research reports of the samples to the Chief Secretaries of the Provinces as well as publishing for the awareness of general public as implementation of law is a provincial subject. The Ministry of Science & Technology is confined to the research only.

15. Senator Naseema Ehsan desired to establish campus of COMSATS Institute of Information Technology at Gawadar instead of Jaffarabad. Secretary Ministry of Science & Technology responded that it's a policy matter/decision.

16. The Chairman of the Committee asked Secretary Ministry of Science & Technology as to whether the following organizations are mutually overlapping:-

- i) PSF (Pakistan Science Foundation)
- ii) STEDEC (Science & Technological Development Corporation)
- iii) PCST (Pakistan Council for Science & Technology)

17. Secretary Ministry of Science & Technology responded that STEDEC has no concern with research; it is related to marketing and commercialization of the products of PCSIR and other organizations working under the Ministry. However, PCST and PSF are involved in research and popularization and promotion of science.

18. The meeting ended with vote of thanks to and from the Chair.

Sd/-
(**Zahid Anwar Siddiqui**)
Secretary Committee

Sd/-
(**Prof. Sajid Mir**)
Chairman
Standing Committee on Science & Technology

SENATE SECRETARIAT

MINUTES OF THE MEETING OF STANDING COMMITTEE ON SCIENCE & TECHNOLOGY HELD ON 20TH SEPTEMBER, 2012 AT PCSIR, ISLAMABAD

A meeting of the Standing Committee on Science & Technology was held on 20th September, 2012 at 11:00 a.m. at Pakistan Council for Science and Industrial Research (PCSIR) Headquarters, Islamabad under the Chairmanship of Senator Prof. Sajid Mir.

2. Agenda before the Committee was as under:-

- i) Briefing on the working of the PCSIR and its achievements.
- ii) Visit of the Committee to National Physical & Standard Laboratory, Islamabad.
- iii) Any other item with permission of the Chair.

3. The following members of the Committee attended the meeting:-

| | |
|--|------------|
| 1. Senator Karim Ahmed Khawaja | Member |
| 2. Senator Mrs. Almas Parveen | Member |
| 3. Senator Mrs. Naseema Ehsan | Member |
| 4. Senator Mrs. Farah Aqil | Member |
| 5. Senator Hidayat Ullah | Member |
| 6. Senator Mufti Abdul Sattar | Member |
| 7. Ms. Rahela Shahadat Baloch | Ex-officio |
| Minister of State for Science & Technology | Member |

4. Chairman, Standing Committee welcomed all members of the Committee, officers of Ministry of Science & Technology and Pakistan Council for Science and Industrial Research (PCSIR). After recitation from the Holy Quran, Chairman, PCSIR gave the presentation on working of the PCSIR.

5. Chairman, PCSIR highlighted the R&D activities as well as ongoing projects being executed by the Council all over the country, its total work, day to day affairs and utilization of the indigenous resources by all the Labs/Units of PCSIR. He elaborated several points pertaining to the execution of R&D activities alongwith financial implications in toto. He also mentioned about the Council's research activities in the fields of Pharmaceutical, Minerals, Food, Polymers, Fuel, Leather as well as the low cost scientific and general equipments. He further elaborated that although Scientists of PCSIR are striving hard to make the Council self-reliant, productive and contributory unit towards state economy, but unfortunately they are being paid meager incentives and privileges.

6. During the briefing, Senator Syed Mustafa Kamal, raised his concerns over the project of Coal Gasification being undertaken by both the scientific institutions, the PCSIR and the institute of Dr. Samar Mubarkmand. He further asked about the significance of PCSIR's project in overcoming the energy crisis in the country. Chairman, PCSIR explained that the project of PCSIR and that of Dr. Samar Mubarkmand, are though aimed at the same target, yet the methodology is different. In addition, he also informed that we are not competing with the mega project being executed by Dr. Samar. He regretted for reluctance of the Government in commercialization of the products of the PCSIR amongst the local industries and the

entrepreneurs. He assured that PCSIR would continue to extend its services to the industries/entrepreneurs in Pakistan at reasonable rates. Chairman Standing Committee assured that from Government side, the PCSIR would be extended all possible support.

7. Chairman, PCSIR also discussed about the financial constraints faced by the PCSIR as due to inadequate budget allocations, the serving as well as the retired employees are not paid their pay and pension in time. In such a situation, it is feared, they would not be able to perform efficiently and effectively. The case of Special Pay Scales (SPSs) to PCSIR employees has been initiated for consideration of the same package as being enjoyed by the employees of other sister organizations doing the same nature of job, but no action has so far been taken by the quarters concerned.

8. Chairman, PCSIR also talked about the Skardu Laboratory and its performance. During his brief statement about the said lab, he was asked by Senators Mrs. Naseema Ehsan and Mrs. Farah Aqil for extension of such facility to Balochistan coastal areas and KPK respectively by PCSIR. In reply to this, Chairman, PCSIR appreciated the keen interest and good will gesture of the Hon'ble members of the committee and assured them to pursue such projects in those areas in the near future. Moreover, he suggested to have its project in Gwadar, the place where world powers have their vested interests due to its strategic importance. He requested the Hon'ble Chairman, Senate Standing Committee to resolve the land issue being faced in Gwadar, so that the PCSIR may launch its vibrant projects in the larger national interests as well as the local community.

9. The committee was informed that the PCSIR had demanded Rs. 1780.00 million for pay, pension, R&D and others during the current financial year, while Rs. 1150.00 million have been allocated during current financial year. Moreover, 20% increase in pay and pension w.e.f 01-07-2012 as announced in the budget speech could not be allocated so far due to the financial constraints. The employees retired for more than one year are also waiting for their commutations/payments. This Council therefore, desperately needs to have Rs. 2686.00 million for current financial year with the following break up:-

| | |
|--|----------------------------|
| 1. Original demand | Rs.1780.00 million |
| 2. Pay & Allowances for vacant posts | Rs.145.00 million |
| 3. Addl. Requirements due to pending liabilities of Pay & Pension of 2011-12 and financial impact of 20% increase in Pay & Pension 2012-13 | Rs.761.00 million |
| <hr/> | |
| Total Demand = | Rs.2686.00 million |
| Already allocated = | (-) Rs.1150.00 million |
| Net Demand = | Rs. 1536.00 million |
| <hr/> | |

10. During briefing Chairman, PCSIR had demanded Rs. 800.00 million to meet the shortfall but later on, the demanded amount was enhanced from Rs. 800.00 million to Rs. 1536.00 million as per the Annexed document.

11. The Chairman, SSC alongwith members, paid a short visit to the National and Physical Standard Laboratory (NPSL). The D.G, NPSL, Mr. Shaheen Raja briefed them about the functions of various Labs including the Mass Metrology Lab, Pressure Metrology Lab,

Electrical Metrology Lab, Temperature Metrology Lab, Length Metrology Lab, Time and Frequency Metrology Lab and Volume Metrology Lab.

12. Chairman, SSC on Science & Technology appreciated the performance of scientists and concluded the briefing session with following decisions:-

- i) Formulation of a Sub-Committee headed by Hon'ble Senator Karim Ahmed Khawaja and comprising of Senators Syed Mustafa Kamal and Mrs. Farah Aqil to pursue the financial issues of PCSIR with relevant forums and its early resolution. The issue would also be raised before the Prime Minister of Pakistan for attracting his attention to the problems being faced by these premier R&D institutions of the country. The Sub-committee may co-opt any suitable officer from PCSIR to assist them in raising the financial and other related issues with the competent forums. The Sub-Committee will also take up item No. (iv) below, with the Govt. of Sindh.
- ii) The Ministry of Science & Technology (MoST) should establish a Marketing Cell to monitor the commercialization activities of S&T organizations in general and of PCSIR in particular.
- iii) Federal Government would be requested to levy at least one percent (1%) R&D tax on all the industries. This amount would be utilized to achieve the R&D targets without facing any fiscal constraints and to establish a linchpin between the R&D institutions and local industries.
- iv) In order to address the deepening energy crisis, the Govt. of Sindh be taken on board not only to avail the cheap services of PCSIR but also promote its valuable products in the industries which may pave the way to overcome the power crisis.

13. The meeting ended with a vote of thanks to and from the Chair.

Sd/-

(**Sharifullah Khan Wazir**)
JS/Secretary Committee

Sd/-

(**Prof. Sajid Mir**)
Chairman Standing Committee

SENATE SECRETARIAT

(PR-Cell)

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پی ایس آئی آر کی مالی مشکلات کے حل کیلئے سب کمیٹی کی تشکیل

بیٹھتے قائمہ کمیٹی کے اجلاس میں ادارے کے مالی معاملات پر سخت تشریح کا اظہار

اسلام آباد (سپتہ نامہ نگار سے) بیٹھتے قائمہ کمیٹی برائے سائنس و ٹیکنالوجی نے پاکستان کونسل آف سائنسٹک اینڈ ایڈوانسڈ ریسرچ (پی ایس آئی آر) میں مالی

دور پر غور و خوض کی اور اس معاملے کا چھپا کرے کی۔ قائمہ کمیٹی کا اجلاس جمعرات کے روز چتر میں پروفیسر ساجد میر کی صدارت میں ہوا جس میں چتر میں پی ایس آئی آر ڈائریکٹریٹ کے پروفیسر نے بتایا کہ گزشتہ سال ادارے کے غیر تقابلی بیٹھتے میں ساڑھے 4 سو ملین روپے کا شارٹ فال تھا جبکہ اس سال 7 سو ملین روپے کا شارٹ فال سے تجاوزوں اور پچھن کی ادائیگی میں شہدے مشکلات کا سامنا کرنا پڑ رہا ہے۔ ملازمین کا میڈیکل ٹیکہ بند کر دیا گیا ہے جبکہ ٹرانسپورٹ کے اخراجات بھی کم گئے ہیں۔ پرواں مالی سال کیلئے 19 سو ملین روپے کی ڈیمانڈ کی گئی مگر تا حال صرف 226 ملین روپے جاری کئے گئے ہیں اس پر چتر میں قائمہ کمیٹی پروفیسر ساجد میر نے کہا کہ اس ادارے میں کام ہو رہا ہے لہذا اس کیلئے حکومت کو فنڈز جاری کرنے چاہئیں اگر اس ادارے کے ملازمین کی تنخواہوں کا مسئلہ حل ہو جائے تو ان کے کام کا فائدہ ملے گا۔

کو ہو سکتا ہے۔ کمیٹی نے سفارش کی ہے کہ حکومت کو اس ادارے کی پراڈکٹس کی مارکیٹنگ کیلئے مدد کرنی چاہیے اور اس حوالے سے ایک سیل تشکیل دیا جانا چاہیے تاکہ اس ادارے کا ایڈمنسٹری کے ساتھ رابطے کی صورت حال کو بہتر بنایا جاسکے۔ کمیٹی نے سفارش کی کہ ایڈمنسٹری پر ریسرچ کیلئے کم سے کم ٹیکس لگایا جانا چاہیے جو ریسرچ پر استعمال ہو اور وہ ٹیکس ریسرچ اداروں کو ملنا چاہیے۔ قائمہ کمیٹی نے قرارداد کی بجلی ملک کا سب سے بڑا مسئلہ ہے جس پر سب کو تشویش ہے لہذا کمیٹی سفارش کرتی ہے کہ فیکٹریوں کے حوالے سے پی ایس آئی آر کو سندھ حکومت آن بورڈ لے اور اس حوالے سے قائمہ کمیٹی نے 2 رکنی سب کمیٹی تشکیل دی جس میں سینیٹر کریم احمد خٹیب اور سینیٹر سعید مصطفیٰ کمال شامل ہوں گے جبکہ پی ایس آئی آر کے مالی معاملات کو بہتر بنانے کیلئے بنائی گئی سب کمیٹی میں سینیٹر فرح عارف، سینیٹر سعید مصطفیٰ کمال اور سینیٹر کریم احمد خٹیب شامل ہوں گے۔ سینیٹر سعید مصطفیٰ کمال نے کہا کہ فیکٹریوں پر ایجنٹ کے حوالے سے تو کم کو دھوکے میں نہ رکھا جائے۔ انرجی ملک کا سب سے بڑا مسئلہ ہے اس پر کام کرنے کی ضرورت ہے انہوں نے چتر میں پی ایس آئی آر پر زور دیا کہ واضح طور پر کمیٹی کو بتایا جائے فیکٹریوں کے حوالے سے ٹیکنالوجی ڈائریکٹر شرمیلا کمار متدی پرانی سے یا پھر پی ایس آئی آر سے اس پر چتر میں پی ایس آئی آر نے کہا کہ فیکٹریوں کے حوالے سے ان کی ٹیکنالوجی پرانی ہے۔ وزیر مملکت برائے سائنس و ٹیکنالوجی راجیہ شہادت بلوچ نے کہا کہ ان کا کام مارکیٹنگ نہیں اس ادارے کا فنڈنگ کا سب سے بڑا مسئلہ ہے۔ سینیٹر فرح عارف نے کہا کہ اگر سال کیلئے پراپ ریسرچ کر رہے ہیں تو اس کا کوئی فائدہ نہیں ہے اگرچہ فائدہ عوام کو نہیں پہنچتا رہا تو پھر ایسی ایسی سائنسز بند کر دینی چاہیے۔ اس سے کل چتر میں پی ایس آئی آر ڈائریکٹریٹ کے پروفیسر نے کمیٹی کو ادارے کی کارکردگی کے بارے میں بریفنگ دیتے ہوئے بتایا کہ ادارے پاس فیکٹریوں میں ٹھہرے کے بلین میٹرک ٹن کے ذخائر موجود ہیں ہم فیکٹریوں کو ٹیکس میں بدلنے کے بعد پھر ٹیکس سے ڈیزل بنانے پر کام کر رہے ہیں ہم نے اس حوالے سے تجزیہ بھی کر لیا ہے۔ ہمارا بنیادی کام ایڈمنسٹری کی مدد کرنا ہے جبکہ ہمارا مقصد ریسرچ اینڈ ڈیولپمنٹ ہے۔ انہوں نے کمیٹی کو بتایا کہ وہ ادارے کی مزید 17 لیبارٹریوں کو ایکٹو بنانے

کر رہے ہیں۔ ہمارا کام ریسرچ کے بعد سائنس کیلئے تک چیزوں کی تیاری کرنا ہوتا ہے مگر پوسٹی میں ریسرچ اینڈ ڈیولپمنٹ کیلئے حکومت کی طرف سے کوئی فنڈ نہیں دیا جاتا۔ اجلاس میں سینیٹر کریم احمد خٹیب، الماس پروین، سینیٹر احسان، فرح عارف، سعید مصطفیٰ کمال، جماعت اللہ مصطفیٰ عبدالستار، وزیر مملکت برائے سائنس و ٹیکنالوجی راجیہ شہادت بلوچ، ایڈیشنل سیکریٹری نجیب خاں اور خواجہ، جوائنٹ سیکریٹری ملک قیصر مجید اور وزارت کے دیگر اعلیٰ افسران بھی موجود تھے۔ اجلاس کے بعد کمیٹی کے ارکان وفاقی دارالحکومت کے راستوں کی بندش کے باوجود نیشنل ٹرانزٹ اینڈ سٹریٹ ڈیولپمنٹ ڈیپارٹمنٹ (این ٹی ایس ایل) گئے اور لیبارٹری کے مختلف شعبوں کا دورہ کیا۔ اس دوران ڈائریکٹر جنرل این ٹی ایس ایل شایین راجہ نے کمیٹی کے ارکان کو لیبارٹری کے کام کے حوالے سے بریفنگ دی۔

SENATE SECRETARIAT

MINUTES OF THE MEETING OF SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY HELD ON 23RD JANUARY, 2013 AT ISLAMABAD

A meeting of the Senate Standing Committee on Science & Technology was held on 23rd January, 2013 at 11:00 a.m. in Committee Room No.4, Parliament House, Islamabad.

2. The agenda before the Committee was as under:-
- i) Briefing and discussion on the working of Pakistan Council for Renewable Energy Technology and its role in the present national energy crisis.
 - ii) Any other item with permission of the Chair.

3. The following Members of the Committee attended the meeting:-

| | | |
|----|-----------------------------|----------|
| 1. | Senator Prof. Sajid Mir | Chairman |
| 2. | Senator Karim Ahmed Khawaja | Member |
| 3. | Senator Mrs. Almas Parveen | Member |
| 4. | Senator Mrs. Farah Aqil | Member |
| 5. | Senator Hidayat Ullah | Member |

4. The meeting started with recitation from the Holy Quran. Thereafter, honourable Chairman welcomed all the participants to the meeting.

ITEM NO.1

BRIEFING AND DISCUSSION ON THE WORKING OF PAKISTAN COUNCIL FOR RENEWABLE ENERGY TECHNOLOGY AND ITS ROLE IN THE PRESENT NATIONAL ENERGY CRISIS.

5. Mr. Khalid Islam, Director General, PCRET briefed honorable members of the committee on working of Pakistan Council for Renewable Energy Technology (PCRET) and its role in the present national energy crisis. He informed that PCRET was established on 8th May, 2001 with its head office and labs in Islamabad, regional offices at four provincial headquarters and field offices at different locations. Main objective of the organization is to establish facilities, expertise and to conduct research for suitable renewable energy technologies, produce materials, devices and their appliances in the field of renewable energy. This organization has been facing lack of funds and shortage of staff problems. Presently, this organization works on Solar, Micro hydel, biogas and wind power energy. Despite shortage of funds and staff, this organization has introduced many products to meet the growing demand of the energy through various projects as per following:-

- i) **Production of High quality solar panels using Monocrystalline silicon photo voltaic cells.** This is a Commercial plan introduced by PCRET. In this program, PCRET will

work on solar panels for commercial purposes. In this regard, they are planning to make solar cells on the identical pattern made by China.

- ii) **Enhancement of Production Capacity of Solar Panels upto 10 MW per annum.** In this regard, the foreign funding is requested upto US\$ 10 million. Iranian Government has also committed through Tokyo Donors Conference. In this regard the concept proposal has been submitted to Ministry of Science and Technology for onward submission to Planning Commission and approval by Iranian Embassy, Islamabad.

In reply to a question by Chairman Committee regarding usage of solar panels during night, Secretary informed that this will cost very high because of usage of solar batteries which cost very high and can exhaust after usage of a few years. The solar energy costs very high due to battery cost. However without batteries it is the cheapest form of energy source.

- iii) **Fabrication and Installation of Sun-Tracked solar parabolic troughs.** This is for thermal solar system for Industrial water heating and steam generation purpose. This R&D experimental system is started for installation in PCRET, Islamabad for generation of hot water and possibly to generate steam for Industrial use & generation of Electric Power.
- iv) **Fabrication and Installation of sun-tracked solar dryer with one ton capacity.** This will be sun tracked system dryer. This project is underway in Lahore. This R & D experimental system is started for installation in PCRET, Regional Office, Lahore for drying various flowers, fruits and vegetables for export purposes.
- v) **Production and Installation of solar cooker huts for community.** These cookers are capable of focusing sun radiations for generating temperature 280 C to 350C. Its food cooking time is 15 to 20 minutes. This is an ideal project for home purposes. The solar cooker huts are also to be introduced for the community. In this regard PCRET is trying to make exhibition and invite the private parties for joint venture.
- vi) **Designing and Installation of Commercial Bio Gas Plants.** It has been worked out with the help of Czech Republic and it can generate Electricity upto 1500kw. It is a big opportunity for our country investors also as around 85% would be foreign investment and 15% will be invested at local level.
- vii) **Production of Micro Hydel Power plants.** This project has been introduced by PCRET in hilly areas to generate electricity at micro level. In this Project there will be a joint venture for investments for cables, poles and internal wirings by NGOs, Individuals, entrepreneurs, companies.
- viii) **Development of Solar Air Conditioners.** In this Project a 3 ton capacity solar air conditioner has been introduced but without a compressor. Its initial cost would be Rs.40000. Chairman Committee appreciated this project and instructed to introduce it at larger level.
- ix) **Development of small scale coal gasifires and garbage gasifires.** This is an important solution to meet energy demands. This is on the pattern of underground coal program initiated by Samar Mubarak Mand.

- x) **Reverse engineering of 900 ampere to 1000 ampere DC Batteries.** This is an important project of PCRET to reuse the exhausted batteries and make them workable for long time usage.
- xi) **Development of small scale wind mills.**
6. Director General, PCRET further informed that the following four PSDP projects fully funded by the government are being executed by PCRET.

i) Biogas Technology and Production of Bio-Fertilizer.

This project costs Rs.97.648 million and will be completed in June 2013. This project was meant for development and promotion of biogas technology for meeting domestic fuel needs of rural areas and production of bio-fertilizer. **2500 rural houses were to be installed.** For this purpose they have publicized the project for public awareness. Senator Mrs. Farah Aqil asked as to why FATA area has not been included in this project. In reply, Secretary informed that the funding mechanism for FATA is different. As the funds are arranged through Governor KPK Secretariat, therefore, FATA has not been included in this PSDP project.

In reply to another question by Chairman Committee, Secretary informed that we can use biogas for domestic purpose.

Senator Karim Khawaja informed that he visited PCSIR office in Karachi and suggested that the projects presently introduced in PCRET need to be discussed at higher level in every province so that they can also avail services of this organization. Chairman committee proposed that their representative should participate in the meetings so that they can get first-hand knowledge about the projects. Secretary assured the Chairman that they are ready to give briefing to the provincial authorities.

- ii) **Production of Silicon Solar Cells and Solar Panels.** This project is for upgradation of facilities to produce indigenous production of solar cells/modules upto 80 kw per annum. The objective of the project is to upgrade the capacity of Silicon. It will clean and renew the source of SOLAR Photo-voltaic (P.V) Energy.
- iii) **Installation of 200 KW micro hydro power plant at canal fall at Khanpur Dam.** This is for development and installation of MHP plant at canal fall for demonstration and commercial applications. This project costs Rs.17.042 million. It has been completed in December 2012. Under canal fall, objective of this project is to design and install 200 kw micro hydel plant of capacity 100 kw each of cross flow turbine and pump.
- iv) **Installation of 100 Micro Hydro Power Plants.** This project objective is to survey, design and install 100 MHP plants in the earthquake affected areas. This can provide electricity to 15000 houses and power for cottage level industrial activities.

7. In addition to that the wind turbines for electrification purpose in Sindh and Baluchistan have been introduced. Around 155 turbines have been installed in Sindh and Baluchistan in 1560 houses and 9 coast guard check posts.
8. Director General informed that his organization is going to launch a joint venture program to promote the above projects. They are also going to publicize these projects through media, exhibition etc.
9. Chairman desired to visit the head office to see all the project equipments. Director General cordially invited the committee members to visit the Head office. Chairman committee admired the efforts made by the PCRET.
10. In the end, the Chairman took following decisions:-
- i. On the request of Senator Karim Ahmed Khawaja, the Chairman Committee directed to arrange a briefing on all projects to provincial government representatives.
 - ii. To introduce the schemes in the local market for joint venture purpose and for general awareness of the people, all the project may be publicised and Seminars/exhibitions be arranged.
 - iii. Dr. Samar Mubarik Mand be invited for a detailed briefing on Thar Coal Project to the Committee/Sub-Committee and on the basis of that briefing, the issue regarding speedy implementation of the Project be taken up at the highest level.
11. The meeting ended with a vote of thanks to and from the Chair.

Sd/-

(**Sharifullah Khan Wazir**)
JS/Secretary Committee

Sd/-

(**Prof. Sajid Mir**)
Chairman,
Standing Committee on Science & Technology

SENATE SECRETARIAT

MINUTES OF THE MEETING OF THE SENATE STANDING COMMITTEE ON SCIENCE & TECHNOLOGY HELD ON 14TH MAY, 2013 IN COMMITTEE ROOM NO.1, AT PARLIAMENT HOUSE, ISLAMABAD

A meeting of the Senate Standing Committee on Science & Technology was held on 14th May, 2013 at 11:00 a.m. in Committee Room No.1, Parliament House, Islamabad. Senator Prof. Sajid Mir was in the Chair.

2. The following members of the Committee attended the meeting:

| | | |
|----|-----------------------------|-------------------|
| 1. | Senator Karim Ahmed Khawaja | Member |
| 2. | Senator Mrs. Almas Parveen | Member |
| 3. | Senator Mrs. Farah Aqil | Member |
| 4. | Senator Mufti Abdul Sattar | Member |
| 5. | Dar. Sania Nishtar | Ex-Officio Member |

3. The agenda before the Committee was as under:-

- i) Presentation and discussion on the report of the Sub-Committee of the Standing Committee on Science & Technology.
- ii) Any other item with permission of the chair.

4. The meeting started with recitation from the Holy Quran by Senator Mufti Abdul Sattar.

5. The Chair welcomed the participants. While highlighting the importance of the PCSIR, he said that the Institute should be facilitated well in terms of finances so that it could cater to the demands of its employees and for the successful completion of its ongoing projects.

6. Thereafter, Senator Karim Ahmed Khawaja, Convener of the Sub-Committee took the floor. While discussing the Sub-Committee report, the main Committee was informed that the Sub-Committee held two meetings dated, 01-02-2013 & 21-02-2013. During discussions with the team of the Ministry of Science and Technology and among the Sub-Committee as a whole, members offered ideas for how to identify priorities for future iterations, how to improve current measures; and suggested strategies to meet the pressing financial issues of PCSIR.

7. Regarding financial issues of the PCSIR, he said that the Ministry of Finance has given assurance to the Ministry of Science & Technology to release a sum of Rs.605.945 million against the demand of Rs.735 million. In this respect, a sum of Rs.303 million (as 3rd installment) has already been released and the remaining amount of Rs.303 million would be given in the 4th quarter of the current fiscal year 2012-13.

8. The Sub-Committee noted the importance of the Thar Coal Project. Senator Karim Ahmed Khawaja stated that the Sub-Committee aimed at promoting joint collaborative efforts between different R&D sectors working on Thar Coal and to clarify TORs of various Institutions/Departments working for research and development under the Ministry of Science

and Technology. The Ministry of Science & Technology should promote its best possible efforts in strengthening R&D Institutions. The Sub-Committee unanimously recommended that the Government of Sindh along with the Federal Government should bring forth all possible measures to ensure timely allocation of funds for the speedy execution of the project in the national interest. Such projects needed to be given top priority. It was added that in the prevailing power generation problems all possible collaborative activities in the field of lignite coal utilization to establish plants to meet domestic/commercial requirements of electricity and liquid fuel stand indispensable.

9. The Chair commended Dr. Samar Mubarik Mund's efforts in the field of Thar Coal reserves. It was said that the R&D done by the PCSIR is carried out on a small scale i.e. after successful research they invite private entities to invest and get benefit from the research done by the PCSIR whereas the scale and scope of Dr. Samar's facilities is very high. However, lack of funding is the main hindrance in both the cases. The Committee decided to visit the site area of Thar Coal and to have a clear understanding of the view points of the Government of Sindh and the PCSIR both. It was added that all the concerned departments such as AEDB, Ministry of Petroleum & Natural Resources, WAPDA and GENCO should also ensure their presence.

10. At the juncture, Senator Karim Ahmed Khawaja took the Chair. Senator Khawaja condemned the discouraging attitude of the Secretary, Ministry Science & Technology towards the PCSIR tea. While discussing the same issues, the Minister, Ministry of Science & Technology assured the Chair she would look into the matter in person.

11. The Ministry, Ministry of Science & Technology complimented the Chair and other Committee members for their command and understanding on research and development matters. It has been told that the feedback coming from the Science & Technology Committee members was always entertained with care and attention. Thar Coal being an asset of Pakistan should be handled carefully. Lack of coordination between the implementing bodies was one of the major causes of delaying of development projects. It was suggested that a joint collaborative work between the PCSIR and the Ministry of Water and Power was the need of the time. The Committee was informed that a s a Minister she has drawn a set of recommendations regarding streamlining of R&D sector of Pakistan for the upcoming Government. The Chair suggested that in future Dr. Sania Nishtar would be invited in Committee meetings as an expert.

12. At this juncture, Senator Prof. Sajid Mir joined the meeting again. The Director General, PCRET briefed the Committee about the ongoing projects under his supervision. The members recommended that the Ministry of Science & Technology, PCRET and Provincial government should work in unison for the development of Balochistan. In this regard, better/speedy & affordable energy conservation methods needed to be adopted for the public.

13. In the end, the Committee unanimously endorsed the Report of the Sub-Committee. Its recommendation would be formally forwarded to the Ministry of Science & Technology soon.

14. After detailed deliberations the Committee made following recommendations:-

- i) Thar Coal being an asset of Pakistan should be handled carefully.
- ii) The Committee decided to visit the site area of Thar Coal and to have a clear understanding of the view points of the Government of Sindh and the PCSIR both. It was added that all the concerned departments such as AEDB, Ministry of Petroleum & Natural Resources, WAPDA & GENCO should also ensure their presence.
- iii) A joint collaborative work between the PCSIR and the Ministry of Water and Power should be done on regular basis.

- iv) The members recommended that the Ministry of Science & Technology, PCRET and Provincial should work in unison for the development of Balochistan. In this regard, better/speedy/affordable energy conservation methods needed to be adopted for the public.
15. The meeting ended with a vote of thanks to and from the Chair.

Sd/-

(Husnain Ahmad)
DG/Secretary Committee

Sd/-

(Prof. Sajid Mir)
Chairman,
Standing Committee on Science & Technology

SENATE SECRETARIAT

REPORT OF THE SUB-COMMITTEE OF THE SENATE STANDING COMMITTEE ON SCIENCE & TECHNOLOGY.

A meeting of the Senate Standing Committee on Science & Technology was held on 20th September 2012. During the meeting it was decided to convene a Sub-Committee on financial issues of PCSIR. On 23rd January, 2013 the Committee reconstituted the Sub-Committee under sub-rule (1) of Rules of Procedure and Conduct of Business in the Senate to pursue the same agenda.

2. The agenda before the Sub-Committee was as under:
 - i) To pursue the financial issues of PCSIR with relevant forums and its resolution.
 - ii) To take up the issue with Prime Minister for attracting his kind attention towards the problems being faced by these premier R&D institutions of the country.
 - iii) To co-opt any suitable officer from PCSIR to assist the Sub-Committee in taking up the financial and other related issues with the competent forums.
 - iv) To take on board Government of Sindh not only to avail the cheap services of the PCSIR but also to promote its valuable products in the industries which may pave way to overcome the energy depriving crises through out the country.

3. Sub-Committee comprised of the following members:-

| | |
|--------------------------------|----------|
| 1. Senator Karim Ahmed Khawaja | Convener |
| 2. Senator Syed Mustafa Kamal | Member |
| 3. Senator Mrs. Farah Aqil | Member |

4. The Sub-Committee held two meetings dated, 01-02-2013 & 21-02-2013. During discussions with the team of the Ministry of Science and Technology and among the Sub-Committee as a whole, members offered ideas for how to identify priorities for future iterations, how to improve current measures; and suggested strategies to meet the pressing financial issues of PCSIR.

Meeting held on 01-02-2013

5. The Sub-Committee resolved to streamline the financial issues of PCSIR. In this regard the Committee was told that the Ministry of Finance has given assurance to the Ministry of Science & Technology in a meeting held on 16-11-2012, to release a sum of Rs. 605.945 million against the demand of Rs. 735 million. It was added that a sum of Rs.303 million (as 3rd

installment) has already been released and the remaining amount of Rs. 303 million would be given in the 4th quarter of the current fiscal year 2012-13.

6. The Sub-Committee stressed on enhancing pay packages, training facilities / opportunities for the researchers/ employees of the PCSIR. The members were of the view that attractive pay packages would boost the morale of the researchers/employees and they would also consider themselves at par with other national /international research organizations.

7. The idea of highlighting the importance of PCSIR's valuable services on cheap rates along with the promotion of its products at industrial level, in front of the Government of Sindh was discussed. To have clear understanding of the issue Senator Karim Ahmed Khawaja visited Karachi where he was briefed by the PCSIR team on Thar Coal Project and their other products which include:

- (i) Successful demonstration of Underground Coal gasification process for household gas and electricity generation as a fuel.
- (ii) Fischer-troph process for production of diesel from sin gas.
- (iii) Design and Development of Gasifier.
- (iv) Production of Coal Briquettes.
- (v) Testing /analysis of coal.

8. It was decided to get a detailed briefing by Dr. Samar Mubarik Mund regarding Thar Coal Project and its comparative analysis with the PCSIR Thar Coal Project. (List of participants from the Ministry of Science and Technology and Pakistan Council for Science & Industrial Research (PCSIR) who attended the meeting is at annexure A).

Meeting held on 21-02-2013

9. Senator Moula Baksh Chandio, Senator Mukhtiar Ahmed Dhamrah, Senator Saeed Ghani, Senator Hari Ram, Senator Prof. Sajid Mir attended the Sub-Committee meeting as special invitees. (List of participants from the Ministry of Science & Technology, PCSIR, UCG Project, Sindh Government, Coal Energy Development Board, Government of Sindh and FRC who attended the meeting is at annexure B).

10. Dr. Samar described the work carried out at Thar to utilize the bulk indigenous coal reserves worth US \$ 25 trillion. Thar Coal field possesses 175 billion tones of coal, one of the biggest Lignite deposits spread in an area of 9000 sq. km in the Tharparkar district. It has the capacity to meet energy requirements of the country for decades.

11. Regarding Underground Coal Gasification (UCG) scheme, he said that the technology is based on a simpler method of producing coal gas instead of the complex and time-consuming process of mining of coal. It is the most important clean coal technology of the future with worldwide application and a substitute for deep mining of coal. The estimated cost for coal power generation would be PKR 5.67 per unit while power generated by Independent Power Projects cost PKR 9.27. The success of the Thar Coal project would lead to investment from leading multi-national companies. Several foreign companies have shown interest in the project and are just waiting for the results of the maiden 100MW pilot project. For a 100 megawatt

power generation Plant through underground coal gasification an amount of US \$ 115.6 million was required. Out of which US \$ 19.2 million is received till date where as US \$ 9.3 million are still awaited to open LC for 800 megawatt power generators. No further funds are released by the Finance Division.

12. Dr. Mund briefed the Committee about the future road map of the Underground Coal Gasifiers. He stated that power (electricity) production from UCG was possible with an IGCC configuration or with a series of syngas engine generator set and a steam turbine utilizing exhaust gases of the engines to generate additional power with an overall efficiency of 65-70%. ***One ton of coal yields one megawatt of electricity per hour.***

13. Chairman, PCSIR highlighted the existing deposits of Pakistan with special reference to coal and explained the coal potential for power generation and gave presentation about the factual position of the experimental work done in FRC regarding the gasification of the Thar lignite. Director, FRC explained that after successful completion of gasification process they are working on the liquefaction of the syngas. By using indigenously made FTS reactor FRC scientist are trying their level best to achieve the goal. The same can be done with much faster pace if appropriate funds may be released. Secretary, Ministry of Science and Technology said that they are encouraging private companies to invest in the projects. They are facing some reservations from the Sindh Government as these are the provincial resources, therefore, it should be channelized through provincial government.

14. The Committee was informed that the FRC-PCSIR is working on multiple dimensions for the safe and meaningful utilization of coal reserves of the country. The R&D done by the PCSIR is carried out on a small scale i.e. after successful research, they invite private entities to invest and get benefit from the research done by the PCSIR whereas the scale and scope of Dr. Samar's facilities is very high.

15. The Sub-Committee noted the importance of Thar Coal Project. Senator Karim Ahmed Khawaja stated that the Sub-Committee aimed at promoting joint collaborative efforts between different R&D sectors working on Thar Coal and to clarify TORs of various Institutions\Departments working for research and development under the Ministry of Science and Technology. The Ministry of Science and Technology should promote its best possible efforts in strengthening R&D Institutions. The Sub-Committee unanimously recommended that the Government of Sindh along with the Federal Government should bring forth all possible measures to ensure timely allocation of funds for the speedy execution of the project in the national interest. Such projects needed to be given top priority. It was added that in the prevailing power generation problems all possible collaborative activities in the field of lignite coal utilization to establish plants to meet domestic/commercial requirements of electricity and liquid fuel stand indispensable.

16. After detailed deliberations, the Sub-Committee made following recommendations:

- i) The Sub-Committee aimed at promoting joint collaborative efforts between different R&D sectors working on Thar Coal and to clarify TORs of various Institutions\Departments working for research and development under the Ministry of Science and Technology. Therefore, it was recommended that close coordination/cooperation needed to be established between the PCSIR, different R&D departments and Provincial Governments.
- ii) The Ministry of Science and Technology should promote its best possible efforts in strengthening R&D Institutions.

- iii) The Sub-Committee unanimously recommended that the Government of Sindh along with the Federal Government should bring forth all possible measures to ensure timely allocation of funds for the speedy execution of the project in the national interest. Such projects needed to be given top priority. It was added that in the prevailing power generation problems all possible collaborative activities in the field of lignite coal utilization to establish plants to meet domestic/commercial requirements of electricity and liquid fuel stand indispensable.
 - iv) It was conveyed that the Chief Ministers/Ministers/Secretaries of the relevant departments of all four Provinces would be requested to seriously consider and make maximum use of the indigenous facilities as offered by PCSIR at much affordable prices.
 - v) The President and Prime Minister Secretariats would be requested for consideration of projects related to Electricity generation from Under coal gasification and production of liquid fuel, Portable Biogas plant, Mobile Incinerator, Lab and Biomedical equipment, Herbal & Health care products, Metal Detectors and Walk-Through Gates by PCSIR.
 - vi) Conferences/Seminars be arranged by PCSIR and MoST by inviting the Ministers/Secretaries of the Energy related departments of all Provinces including Ministry of Water & Power at Federal level.
 - vii) Board of Investment needed to be involved in attracting foreign investment, keeping in view its huge potential in Alternate Energy Sector.
17. The meeting ended with a vote of thanks to and from the Chair.

Sd/-

(**Zarghoona Shabbir**)
Secretary Committee

Sd/-

(**Prof. Sajid Mir**)
Chairman,
Standing Committee on Science & Technology

SENATE SECRETARIAT

MINUTES OF THE MEETING OF SUB-COMMITTEE OF SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY

A meeting of the Sub-Committee of Senate Standing Committee on Science & Technology was held on 1st February, 2013 at 2:30 p.m. in Committee Room No. 4, Parliament House, Islamabad under the convenership of Senator Karim Ahmed Khawaja.

2. The agenda before the Committee was as under:-
 - i) To pursue the financial issues of PCSIR with relevant forums and its early resolution.
 - ii) To take up the issue with the Prime Minister of Pakistan for attracting his kind attention towards the problems being faced by these premier R&D institutions of the country.
 - iii) To co-opt any suitable officer from PCSIR to assist the Sub-Committee in taking up the financial and other related issues with the competent forums.
 - iv) To take on board the Government of Sindh not only to avail the cheap services of PCSIR but also to promote its valuable products in the industries which may pave way to overcome the energy depriving crisis through out the country.
3. Senator Mrs. Farah Aqil, Member of the Committee attended the meeting.
4. The meeting started with recitation from the Holy Quran. Thereafter, honourable Convener welcomed all the participants to the meeting.

Item No. i To pursue the financial issues of PCSIR with relevant forums and its early resolution

5. During first meeting of the Senate Standing Committee on Science & Technology at the PCSIR Headquarters, Islamabad on 20th September, 2012, the Committee was informed by the PCSIR authorities about various financial issues faced by them since long. Therefore, formulation of a Sub-Committee under the Convenership of Senator Karim Ahmed Khawaja, Senator Mrs. Farah Aqil and Senator Syed Mustafa Kamal being its members was decided so that to resolve multiple financial issues as faced by PCSIR. Sub-Committee directed the Ministry of Science & Technology to take up the issue with Finance Division and in response a detailed meeting was held between MoST and MoF under the Chairmanship of Finance Secretary on 16th November, 2012. The Finance Division agreed to provide additional budget of Rs. 605.945 million against the demand of Rs. 735 million to PCSIR in two installments during 3rd and 4th quarter of the current financial year 2012-13. Accordingly, the Finance Division sanctioned and released the first installment equal to 50% (Rs. 303.00 million) of the agreed amount just three days ago and the balance amount of Rs. 303.00 million would be released in 4th quarter of the current financial year 2012-13.

6. Chairman, PCSIR on behalf of the Board Members and all staff thanked Convener and Members of the Sub-Committee as well as Ministry of Finance for their co-operation and timely releases of funds.

Item No. ii To take up the issue with the Prime Minister of Pakistan for attracting his kind attention towards the problems being faced by these premier R&D institutions of the country

7. Chairman, PCSIR during the briefing session informed that the pay package offered to PCSIR scientists and employees is less attractive than the package given to some other Researchers and Scientists of national and multi national organizations. Secondly, the career development opportunities and training facilities are also at the minimum in our research laboratories. Therefore, we are continuously losing our best available research staff resulting into critical Manpower issues. We are also lacking the Funds for R&D activities, Purchase of new equipments, repair & maintenance of machinery & equipment, marketing activities and for the utility charges.

Item No. iii To co-opt any suitable officer from PCSIR to assist the Sub-Committee in taking up the financial and other related issues with the competent forums

8. During meeting, although Chairman PCSIR had promised to nominate an officer for the subject purpose but the organization has failed to convey nomination of the officer through a notification to Secretary of the Sub-Committee inspite of his several reminders to the authorities concerned. Such negligence on part of PCSIR resulted into the communication gap in between the Sub-Committee and the PCSIR.

Item No. iv To take on board the Government of Sindh not only to avail the cheap services of PCSIR but also to promote its valuable products in the industries which may pave way to overcome the energy depriving crisis through out the country

9. Keeping in view importance of the issue, Senator Karim Ahmed Khawaja, on his visit to Karachi had held an informal meeting with the PCSIR authorities at their Karachi office during which he was apprised regarding the work done by PCSIR on Thar Coal and other products of PCSIR as detailed below:-

- i) Successful demonstration of Underground Coal gasification process for household gas and electricity generation as a fuel.
- ii) Fischer-troph process for production of diesel from sin gas.
- iii) Design and Development of Gasifier.
- iv) Production of Coal Briquettes.
- v) Testing /analysis of coal.

10. In response Honourable Senator Karim Ahmed Khawaja had assured for all possible help especially in bridging the gap between the PCSIR and the Provincial governments:-

11. It was also conveyed that the Chief Ministers/Ministers/Secretaries of the relevant departments of all four provinces would be requested to seriously consider and make maximum use of the indigenous facilities as offered by PCSIR at much affordable prices.

12. The President and Prime Minister Secretariats would be requested for consideration of projects related to Electricity generation from Undercoal gasification and production of liquid fuel, Portable Biogas plant, Mobile Incinerator, Lab and Biomedical equipment, Herbal & Health care products, Metal Detectors and Walk Through Gates by PCSIR.

13. As Pakistan is facing huge energy shortfall and efforts in this regard are underway to overcome these crisis. Members of the Committee pointed out that Dr. Samar Mubarik Mand has also worked on Thar Coal Project for Production of Gas, Diesel fuel and electricity from Thar Coal Project but well co-ordinated efforts in this regard has not been made so far by the PCSIR. Chairman PCSIR in response stated that Dr. Samar Mubarik Mand facility is a huge one with a lot of financial resources provided by the Federal Government whereas the PCSIR is just a research facility working on a very small scale.

14. After a lot of deliberations and thorough discussion on related issues, it was decided that:-

- i) The Sub-Committee be briefed in detail by Dr. Samar Mubarik Mand regarding Thar Coal Project. Secretary, Science & Technology, Chairman PCSIR and Secretary Thar Coal Project, Govt. of Sindh should also attend the meeting/briefing.
- ii) Conferences/Seminars be arranged by PCSIR and MoST by inviting the Ministers/Secretaries of the Energy related departments of all Provinces including Ministry of Water & Power at Federal level.
- iii) Board of Investment be involved in attracting foreign investment, keeping in view its huge potential in Alternate Energy Sector.

15. The meeting ended with a vote of thanks to and from the Chair.

Sd/-

(**Sharifullah Khan Wazir**)
JS/Secretary Committee

Sd/-

(**Prof. Sajid Mir**)
Chairman,
Standing Committee on Science & Technology

SENATE SECRETARIAT

MEETING OF THE SUB-COMMITTEE OF THE STANDING COMMITTEE ON SCIENCE & TECHNOLOGY ON 21ST FEBRUARY, 2013 AT 2:00 P.M. AT PIPS, PARLIAMENT LODGES, ISLAMABAD

A meeting of the Sub-Committee of the Standing Committee on Science & Technology was held on 21st February, 2013 at 2:00 p.m. at Old PIPS Hall, Parliament Lodges, Islamabad, presided over by Senator Karim Ahmed Khawaja, the Convener of the Sub-Committee.

2. Agenda before the Sub-Committee was as under:-

- i) Briefing by Dr. Samar Mubarik Mund on Thar Coal Project and its comparative analysis with the PCSIR Thar Coal Project.
- ii) Any other item with permission of the Chair

3. The following attended the meeting:-

| | | |
|----|--------------------------------|-----------------|
| 1. | Senator Karim Ahmed Khawaja | Convener |
| 2. | Senator Farah Aqil | Member |
| 3. | Senator Moula Baksh Chandio | Special Invitee |
| 4. | Senator Mukhtiar Ahmed Dhamrah | Special Invitee |
| 5. | Senator Saeed Ghani | Special Invitee |
| 6. | Senator Hari Ram | Special Invitee |
| 7. | Senator Prof. Sajid Mir | Special Invitee |

4. The meeting started with the recitation from the Holly Quran. The Convener of the meeting welcomed the Honourable Members of the Senate, Dr. Samar Mubarik Mund and other participants of the meeting.

5. Senator Karim Ahmed Khawaja, Convener formally introduced the attendants and briefed the main agenda of the meeting. The Senator Karim Ahmed Khawaja also explained the importance of the Thar Coal project in the context of prevailing energy crisis situation of the country. He also elaborated the possible collaborative R&D activities in field of lignite coal utilization to establish plants to meet domestic and commercial requirement of electricity and liquid fuel.

6. The Convener of the meeting, while appreciating the achievements and services rendered by Dr. Samar Mubarik Mund for Pakistan in the field of missile technology, invited him to present detailed briefing on Thar Coal Project and underground gasification.

7. Dr. Samar presented his gratitude to the Convener and Committee Members for providing him opportunity to brief the Sub-Committee on such an important project. He informed that the Thar Coal field possesses 175 billion ton, one of the biggest Lignite deposits spread in an area of 9000 sq. km in the Tharparkar district.

8. He described the progress of the work carried out at Thar to utilize the bulk indigenous coal reserves. Dr. Samar Mubarik also explained the R&D work performed in collaboration with FRC-PCSIR in past couple of years.
9. He further apprised the Committee that these reserves of coal worth US \$ 25 trillion can not only cater the electricity requirements of the country for next 100 years but also save almost four billion dollars in staggering oil import bill.
10. He informed that if the oil reserves of Saudi Arab & Iran put together, these are approximately 375 billion barrels, but a single Thar coal reserve of Sindh is about 850 Trillion Cubic Feet which are 30 times higher than Pakistan's proven gas reserves of 28 TCF.
11. Dr. Samar Mubarak Mand said that just 2% usage of Thar coal can Produce 20,000 Mega Watts of electricity, adding if the entire reserves are utilized, then it could easily be imagined how much energy could be generated.
12. The coal power generation would cost Pakistan PKR 5.67 per unit while power generated by Independent Power Projects cost PKR 9.27, he added.
13. He told that this project requires just Rs. 420 Billion initial investment and Pakistan collects annually Rs. 1220 Billion only through taxes.
14. He said federal government has released Rs 984.9 million for Underground Coal Gasification (UCG) schemes being undertaken in Block V of Thar.
15. The scheme was aimed at producing coal gas for power, UCG is the most important clean coal technology of the future with worldwide application and a substitute for deep mining of coal.
16. Dr Mubarak mand said that the success of the Thar coal project would lead to investment from leading multi-national companies. He added that several foreign companies had shown interest in the project and are just waiting for the results of the maiden 100MW pilot project.
17. Dr. Samar elaborated that this technology is based on a simpler method of producing coal gas instead of the complex and time-consuming process of mining of coal.
18. The GSP carried out the drilling program for development of the blocks for further proven coal reserves from 1994-2000 and Blocks I, II, III and IV were developed. In 2005-2006, Sindh Coal Authority developed Block V and VI through Northeast Coalfield Geological Survey Bureau, China. The Block – V has coal resources of 1394 Million Tones and the cumulative coal thickness varies between 16.74 to 30.88. In 2008-09, Sindh Coal Authority developed Block VII, VIII and extended the block III up to 56 Sq. km (i-e Block III-B) through M/s Deep Rock Drilling Pvt. Limited. The coal found in Thar is of the best quality with low quantity of sulphur.
19. Dr. Samar stated that for a 100 megawatt power generation Plant through underground coal gasification an amount of \$ 115.6 million was required. Out of which \$ 19.2 million is received till date where as \$ 9.3 million are still awaited to open LC for 800 megawatt power generators. No further funds were released by the Finance Division.
20. Dr. Samar Mubarik Mund briefed the Committee about the future road map of the Underground Coal Gasifiers. He stated that power (electricity) production from UCG was possible with an IGCC configuration or with a series of syngas engine generator set and a steam

turbine utilizing exhaust gases of the engines to generate additional power with an overall efficiency of 65-70%, One ton of coal yields one megawatt of electricity per hour.

21. He further apprised the Committee that German scientists developed a process to convert UCG into diesel or methanol. Sasol Co. of South Africa is producing 1,60,000 barrels of diesel per day at an average price of \$30/barrel. With 60 gasifiers at a cost of \$650 million a 20,000 barrel/day facility can be established at Thar utilizing coal gas.

22. He explained that presently, Pakistan is facing gas deficit of 1500 MMcft/d. At a cost of \$ 650million 60 gasifiers can produce 1550 MMcft of gas. The price of UCG would be \$ 3.2 per MMBtu.

23. He further described that Manufacturers of fertilizer had expressed their interest in UCG from Thar and are willing to lay a pipeline for it. The requirement of whole fertilizer industry could be fulfilled with 25 gasifiers with an outlay of \$ 280 million.

On a query of Senator Moula Bux Chandio, Mr. Akhlaq Ahmad Tarar, Federal Secretary for Ministry of Science & Technology clarified that there was no parallel to the experience and vision of Dr. Samar and his high caliber R&D would definitely prove itself worthy for the development in power generation sector. PCSIR-FRC is working in close collaboration with Dr. Samar in UCG project.

24. Dr. Shoukat Parvez, Chairman, PCSIR gave his presentation comprising of the Research work at FRC-PCSIR. FRC scientists under the supervision of Mr. Gulzar Hussain Jhatial, Director, FRC. As the success of this project will unfold lots of opportunities to put forward meaningful solutions for the energy catastrophe despite initiation of many other projects.

25. Chairman, PCSIR highlighted the existing deposits of Pakistan with special reference to coal and explained the coal potential for power generation and gave presentation about the factual position of the experimental work done in FRC regarding the gasification of the Thar lignite. Mr. Gulzar Hussain Jhatial, Director, FRC replied the questions of senators and said that Fuel Research Centre, PCSIR was giving services to stake holders of Thar Coal Project and focusing on the R&D on Underground Gasification of Coal (UCG). The aim of the present work is to study the potential of UCG for Pakistani coal to exploit Thar coal resources which are either uneconomic to work by conventional extraction by coal mining, or inaccessible due to depth, geology or other mining and safety considerations.

26. Director, FRC explained that after successful completion of gasification process we are working on the liquefaction of the syngas. By using indigenously made FTS reactor FRC scientist are trying their level best to achieve the goal. The same can be done with much faster pace if appropriate funds may be released.

27. In addition to Underground Coal Gasification discussion Mr. Gulzar Hussain Jhatial, Director, FRC also gave progress of the current projects. FRC-PCSIR is working on multiple dimensions for the safe and meaningful utilization of coal reserves of the country.

28. Senator Saeed Ghani inquired about the difference between the R&D done by PCSIR and Dr. Samar Mubarak Mund. The Chairman, PCSIR apprised the Sub-Committee that R&D done by the PCSIR is carried out on a small scale. After successful research, they invite private entities to invest and get benefit from the research done by the PCSIR whereas the scale and scope of Dr. Samar's facilities was very high.

29. Dr. Samar Mund explained that R&D done by PCSIR is only to proof the concept and PCSIR generating gas through surface gas coal gasifire but we generate gas underground by burning the coal.

30. Senator Prof. Sajid Mir stated that they value all institutions who are working for the development of the country. The purpose and aim of the sub-committee was to start coordinated efforts for meaningful results. Techniques were the same but the level and scale was different.
31. Senator Moula Baksh Chandio described that they extend equal respect to all. They are proud of Dr. Samar Mubarik Mund and his services for the nation and he is our national hero and he only came here to listen Dr. sahib.
32. Senator Hari Ram asked about the time frame of completion of the project. He also inquired the number of local employees working at Mango Peer Project among the 500 employees of the project. He also sought the employees list working there. He further inquired about the compensation provided to the land owner and local residents who were affected due to land acquisition for the project.
33. The Chairman of PCSIR explained that there is acute shortage of funds. They would complete the project within 2 years if they received required funds. Only 10% percent funds were released and they were unable to complete the project without funds. The Committee should recommend the Government to release the funds immediately.
34. He further explained about the local people. He stated that about 95% Hindus were living in Mango Peer. They were very honest and peace loving people. I assure the Committee that unskilled and semi skilled worker would be appointed from the locals. We also taken technically trained and skilled people from the locals also. About 82% employees in the project are from Sindh province.
35. Senator Farah Aqil thanked Dr. Samar Mubarik Mand for attending the meeting and the valuable information which he shared with the Committee on the Underground Coal Gasification Project. Dr. Asim Hussain talked about the non-feasibility of the underground coal gasification project but now it is clear to us that this is the most important project to solve the present critical energy crises in the country. He inquired about such facilities in Balochistan Province.
36. The Chairman informed that there are 8 to 10 places in Balochistan where coal mines are located. Chamalang is the best among them but the coal is mostly in stone form and not in powder form. Balochistan coal mines produces coal hardly 2 million tons per year. It is suitable for industrial consumption.
37. Senator Saeed Ghani asked about the number of on-going projects. The Chairman stated that three projects are going on in joint venture with foreign companies. Coal reserves are approximately 6500 million tons. 1200 MW electricity would be generated with total cost of US \$ 3 billion. Another project is underway being carried out by UK based company for generation of 300 MW electricity for 2.5 million ton coal reserves.
38. Senator Mukhtiar Ahmed Dhamrah deliberated that this project for Sindh Province as well Pakistan is as important as the nuclear bomb. After completion and proper functioning of the project the Sindh Province would be an economic hub as Dubai in the day to come. He inquired about the active role of the Sindh Government.
39. The Chairman apprised the Committee in this connection that water in the area is not dangerous if children take it by mistake but it taste is salty but not useful for drinking. The Sindh Government plays an important role in implementation and facilitating in the execution of this project. We have asked the TEVTA to establish a Skill Development Centre to train the local people to enable them to work for the project.

40. The Committee unanimously recommended that all possible measures must be taken to get the funds allocation and released in time by the Government and this project would be taken as a national project.
41. Senator Sajid Mir asked why so many parallel R&D activities are being carried out by different departments for the same aims and objects.
42. Secretary, Ministry of Science and Technology informed that we are encouraging private companies to invest in the projects themselves. We are facing some reservations from the Sindh Government as these are the provincial resources, therefore, it should be canalized through provincial government.
43. Senator Farah Aqil questioned the burning of precious gas for production of electricity.
44. Dr. Samar Mubarik Mand explained that in 1985 it was decided to generate electricity by burning gas. It was a wasteful exercise. He termed it a crime to burn sui gas for production of electricity.
45. Senator Karim Ahmed Khawaja, the Convener thanked the senators for attending the meeting and their valuable contribution and deliberations. He also thanked all other participants of the meeting. He commented that we are proud of our legendary scientist Dr. Samar Mubarik Mand and his contributions to the nation are remarkable. He requested him that he should produce a team of good scientists for future technological development. He further stated that the aim of the sub-committee was to clarify the terms of reference of the various institutions/Departments working for research and development under the ministry of science and technology. The committee has accomplished its task. The committee would recommend to convey in black and white to the Government to give top priority to such indigenous projects and all resources should be spared for these projects. The ministry of science and technology should make all out efforts to promote and flourish its institutions. We have held this meeting in good faith and in national interest. The government of Sindh has done a lot for the development of these facilities and the federal government should explore the ways and means in consultation with the Government of Sindh to utilize the hidden treasures of Thar to bring the country out of present energy crises.
46. The meeting ended with a vote of thanks to the chair.

Sd/-

(**Sharifullah Khan Wazir**)
JS/Secretary Committee

Sd/-

(**Senator Karim Ahmed Khawaja**)
Convener

SENATE SECRETARIAT

MINUTES OF THE MEETING OF THE SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY ON 4TH JUNE, 2013 IN PAKISTAN COUNCIL OF RENEWABLE ENERGY TECHNOLOGY (PCRET), ISLAMABAD.

A meeting of the Senate Standing Committee on Science and Technology was held on 4th June, 2013 at 11:00 a.m. in Pakistan Council of Renewable Energy Technology (PCRET), Islamabad. Senator Professor Sajid Mir was in the Chair.

2. The Following members attended the meeting:-

| | |
|--------------------------------|--------|
| 1. Senator Karim Ahmed Khawaja | Member |
| 2. Senator Almas Parveen | Member |
| 3. Senator Farah Aqil | Member |
| 4. Senator Mufti Abdul Sattar | Member |
| 5. Senator Hilal-ur-Rehman | Member |

3. The agenda before the Committee was as under:-

- i) Briefing and discussion on the ongoing projects of PCRET and its future plans.
- ii) Any other item with the permission of the Chair.

4. The meeting started with recitation from the Holy Quran by Senator Mufti Abdul Sattar.

5. The Chair welcomed the participants. He thanked all the members specially Senator Farah Aqil for postponing her Committee Meeting to ensure her presence. He then briefed the members about the purpose of the visit.

6. The Secretary, Ministry of Science & Technology, Mr. Akhlaq Ahmad Tarar, highlighted the importance of PCRET in the field of research. He said with the help of research institutions, energy issues in Pakistan could be resolved. Thereafter, a detailed presentation was given by Mr. Khalid Islam, Director General (PCRET).

7. He briefed the Committee members about the ongoing projects of PCRET. It was said that Pakistan being a naturally resourced country needed nothing but, timely measures to exploit its natural resources aptly. Regarding the ongoing load shedding issue, the Committee was told that PCRET was capable of solving the problem of energy shortfall, subject to availability of sufficient funding and proper coordination amongst Government functionaries and the PCRET. The Committee members stressed the need of eliminating power shortage from the country with sincerity and cautiousness. Hence, close coordination and cooperation between the Ministry of Water and Power, Ministry of Science and Technology, Provinces and the PCRET was highly recommended.

8. The Committee was informed that PCRET has done a lot of research on Solar Energy, Macro Hydal Energy, Bio-Gas Energy and Wind Power Energy. It was said that through Bio-Gas plants and Macro Hydal Power Plants, around two hundred houses were receiving

electricity. Regarding Bio-Gas energy, it was recommended that the Sindh Energy Department, Sindh Livestock Department and the PCRET should work in collaboration on Electricity production project. It was added that Bhains Colony of Karachi could be a valuable source in achieving the objective. The Committee recommended that for the commercialization of Bio-Gas plants, the Sindh Energy and Livestock Departments should come up with a concrete plan to make the most out of it. Meanwhile, the Secretary, Ministry of Science & Technology assured the committee that he would provide all possible support in this regard. Regarding Bio-Gas productivity, the chair stressed upon providing updated information to the Senate Standing Committee on regular basis.

9. While highlighting the importance of research and development, the Committee stressed upon better media campaigning so that PCRET research work could be known well to the public. There should be proper linkages between Provincial Energy Departments and PCRET as on the basis on these linkages the Provinces would get help from PCRET's research activities.

10. After detailed deliberations the Committee made following recommendations:

- i) The ministry of Water & Power should work with PCRET to find out solutions to eliminate energy shortage from the country.
- ii) Regarding utilization of Bio-Gas, it was recommended that the Sindh Energy Department, Sindh Livestock Department along with the PCRET should work on Electricity production.
- iii) The Committee recommended that for the commercialization of Bio-Gas plants, the Sindh Energy and Livestock Departments should come up with a concrete plan so as to utilize the potentiality of Bio-Gas Energy aptly.
- iv) The PCRET research work/products should be known to the public. In this regard, proper media campaigning is needed.
- v) Proper linkages needed to be maintained between Provincial Energy Departments and PCRET.

11. The meeting ended with a vote of thanks to and from the Chair.

Sd/-

(**Zarghoona Shabbir**)
Secretary Committee

Sd/-

(**Prof. Sajid Mir**)
Chairman,
Standing Committee on Science & Technology

SENATE SECRETARIAT
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Senate body's meeting

'Research institutions can help solve energy crisis'

■ Standing committee informed ongoing load shedding menace can be overcome by taking advantage of inventions and research work of PCRET

By Ijaz Kakakhel

ISLAMABAD: Ministry of Science and Technology Secretary Akhlaq Ahmad Tarar on Tuesday blamed that there is lack of coordination among national institutions, however with the help of research institutions energy crisis in Pakistan could be solved.

The secretary expressed these views while briefing the meeting of Senate's Standing Committee on Science and Technology, which was chaired by Senator Professor Sajid Mir. The committee was given a briefing over the ongoing projects of Pakistan Council of Renewable Energy Technology (PCRET) and it deliberated upon the means and ways to overcome ongoing load shedding in the country through these projects.

Tarar told the senators that PCRET is an important research institute and ongoing load shedding menace could be overcome by taking advantage from the



ISLAMABAD: Senate Standing Committee on Science and Technology Chairman Senator Professor Sajid Mir presiding over a meeting of the committee at Pakistan Council of Renewable Energy Technology. APP

inventions and research works of this institution. Provinces should play their role in this regard by fully utilising the available resources to overcome energy shortage. He further stressed the need that the Ministry of Water and Power should work together with PCRET to find solutions to these challenges.

The secretary said that there is lack of coordination among national institutions and with the help of research institutions, energy crisis in Pakistan could be solved. The Senate Standing

Committee on Science and Technology could also play its pivotal role in this regard.

PCRET Director General Khalid Islam claimed that it could help in reducing energy shortage if government and private sector extend their help to the institution. The DG briefed the committee over the ongoing PCRET projects for solving the energy crisis in the country.

He said that basic job of this institute is to solve country's problems by giving promotion to research works. Currently the

country is confronted with energy crisis and to solve this problem, this institution has done a lot of research work in four different segments including solar energy, macro-hydral energy, biogas energy and wind-power energy. If government and private sector extend their support to PCRET, energy crisis could be solved to a great extent in this regard.

He further said that the country is rich in natural resources; however it is the need of the hour to utilise these resources in a better way. He said that power could be produced through solar biogas and hydral way in Punjab. Canal system in Punjab is very good and power could be produced and provide to different cities by setting hydral turbine on them. Electricity could be produced through wind system in Balochistan, Sindh and Khyber Pakhtunkhwa, while electricity could be produced in through biogas in Bhains Colony in Karachi.

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ماہیکر پارٹیل اپا ویلڈ انٹنس سے 200 گھنٹہ کو کون کبھی مل رہی ہے

سولہ اور ونڈ انرجی مینگی ہے، بائیو گیس اور مائیکرو ہائیڈرل پلانٹس کے منصوبے کا میاب رہے، وفاقی سیکرٹری سائنس

اسلام آباد (ساجد چوہدری اپنے نامہ نگار سے) بیٹنٹ کی قائمہ کمیٹی برائے سائنس و ٹیکنالوجی کو بتایا گیا کہ پاکستان کونسل آف ریسرچ اینڈ ایجوکیشنل ایڈوانسمنٹ (پکریٹ) بائیو گیس پلانٹس اور مائیکرو ہائیڈرل پاور پلانٹس کے ذریعے 20 سے 2 سو گھنٹہ کو کبھی مل رہی ہے۔ کمرشل بائیو گیس پلانٹس کے حوالے سے سبزہ کے انرجی اور لائیو سٹاک کے شعبے پکریٹ سے مل کر مشترکہ منصوبہ بنا رہے ہیں تو وزارت سائنس اس میں بھر پور مدد دے گی۔ قائمہ کمیٹی کا اجلاس منگل کو چیئر مین کمیٹی پروفیسر ساجد میر کی زیر صدارت پکریٹ کے کانفرنس ہال میں ہوا جس میں ممبران کمیٹی فرخ عاقل، الماس پروین، کریم احمد خلیفہ، مفتی عبدالستار اور دستگیر بلال الرحمن وفاقی سیکرٹری سائنس و ٹیکنالوجی اظلاق احمد تارڑ سمیت وراہت اور پکریٹ کے حکام نے شرکت کی۔

چیئر مین قائمہ کمیٹی پروفیسر ساجد میر نے وزارت اور پکریٹ کے حکام پر زور دیا کہ ریسرچ کے عملی نتائج کو عام آدمی سمیت پرائیویٹ سیکٹر، بزنس کمیونٹی اور اظہار سڑک بزنس تک پہنچایا جائے۔ انہوں نے کہا کہ صوبوں کے انرجی حکاموں تک پکریٹ کی ریسرچ کے نتائج پہنچنے چاہئیں اس حوالے سے صوبوں کے ساتھ باہم رابطہ کو فروغ دیا جائے۔ چیئر مین قائمہ کمیٹی نے کہا کہ انرجی کے قبائل ذرائع کا زیادہ استعمال کیا جائے۔ انہوں نے کہا کہ کمیٹی اس حوالے سے اپنی سفارشات قناس اور متعلقہ وزارت کو بھجوانے کی۔ ہم سرمایہ کاروں سے خود بھی بات کریں گے کہ پکریٹ سے رابطہ کیا جائے۔ پروفیسر ساجد میر نے کمیٹی کی طرف سے چاروں صوبوں کو خط لکھنے کی ہدایت کی پکریٹ کی صلاحیتوں سے بھر پور فائدہ اٹھایا جائے۔ پرنس ڈیم بنانے سے

اس طرح کے اقدامات بھی اٹھائے جاسکتے ہیں۔ اس سے قبل وفاقی سیکرٹری سائنس و ٹیکنالوجی اظلاق احمد تارڑ اور ڈائریکٹر جنرل پکریٹ خالد نے کمیٹی کو ادارے کی کارکردگی اور منصوبوں کے بارے میں بریفنگ دی۔ وفاقی سیکرٹری اظلاق احمد تارڑ نے کمیٹی کو بتایا کہ ملک میں انرجی کراؤن ہے اکثر سوال اٹھتا ہے کہ پکریٹ کا اس حوالے سے کیا کردار ہے اس ادارے کے بائیو گیس اور مائیکرو ہائیڈرل پاور پلانٹس کے منصوبے کا میاب رہے ہیں۔ سولہ وڈ پری مینگی ٹیکنالوجی ہے اس میں دنیا میں چین کی سرمایہ کاری کی جاتی ہے۔ پکریٹ کی صلاحیت اس حوالے سے اتنی زیادہ نہیں کہ ان پر زیادہ کام ہو سکے وفاقی سیکرٹری نے کہا کہ حکومت کو سولہ ٹیبلٹ ویل پر 50 فیصد سبسڈی دے باقی صفحہ 8 نمبر 8

چیئر مین قائمہ کمیٹی

رہی ہے اس پر زیادہ توجہ دینے کی ضرورت ہے وفاقی سیکرٹری نے پکریٹ حکام پر زور دیا کہ بائیو گیس پلانٹ کے سٹیٹڈ ریٹنڈور کرانے جائیں۔ ڈائریکٹر جنرل پکریٹ خالد اسلام نے ادارے کے جاری منصوبوں اور ادارے کی کارکردگی کے بارے میں کمیٹی کو بریفنگ دیتے ہوئے بتایا کہ چند ماہ میں ادارے نے بیس شیڈوں میں بہت زیادہ کام کیا ہے۔ انہوں نے بتایا کہ اس ادارے کا بنیادی کام ریسرچ کے شعبے کو فروغ دینا ہے۔ اس کے علاوہ کئی مسائل کو حل کرنا ہے جو موجودہ پکریٹ کے بحران کے حل کے سلسلے میں اس ادارے نے ریسرچ کے چار مختلف شعبوں سولہ انرجی، مائیکرو ہائیڈرل، بائیو گیس اور وڈ پاور انرجی میں خاطر خواہ ریسرچ کی ہے۔ اگر حکومت اور پرائیویٹ ادارے تعاون کریں تو پکریٹ بحران کو حل کر سکتی ہے۔ انہوں نے کہا کہ پکریٹ کا مہم فریڈم بہت اچھا ہے جس پر ہائیڈرل ٹرانز انکریٹنگ مشینوں کو کئی فراہم کی جاسکتی ہے۔ کراچی کی پکریٹس کالونی سے بائیو گیس کے ذریعے بجلی پیدا کرنے میں مدد ملی جاسکتی ہے۔

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توانائی کے قابل تجدید ذرائع پر توجہ دی جائے، قائمہ کمیٹی

شسی توانائی پر چلنے والے ایئر کنڈیشننگ کی تیاری پر کام کیا جا رہا ہے، کمیٹی کو بریفنگ

اسلام آباد (اسے پی پی) سینیٹ کی قائمہ کمیٹی برائے سائنس و ٹیکنالوجی نے سائنس اور ٹیکنالوجی کے شعبہ میں جدت کو ملک کی سماجی و اقتصادی ترقی کیلئے لازمی قرار دیتے ہوئے کہا ہے کہ توانائی بحران کے تناظر میں قابل تجدید توانائی کے ذرائع کو ترقی دی جائے، جبکہ ریسرچ کلچر کو فروغ دینے کیلئے متعلقہ ادارے لوگوں میں آگاہی پیدا کرنے کیلئے بھی اقدامات کریں، کمیٹی کا اجلاس پروفیسر ساجد میر کی زیر صدارت (باقی صفحہ 5 نمبر 19)

قائمہ کمیٹی

بقیہ نمبر 19

ہوا، پی پی آر ای ٹی کے ڈائریکٹر جنرل خالد اسلام نے کمیٹی کو بتایا کہ اس وقت بجلی کا بحران سب سے بڑا مسئلہ ہے جسے حل کرنے کیلئے ادارہ نے ریسرچ کے مختلف شعبوں سولر انرجی، میکرو ہائیڈرو پاور، ہائیڈرو پاور اور ونڈ پاور انرجی میں خاطر خواہ ریسرچ کی ہے اگر حکومت اور پرائیویٹ ادارے تعاون کریں تو بجلی بحران کو کسی حد تک کم کیا جاسکتا ہے، کونسل ملک میں شسی توانائی پر چلنے والے ایئر کنڈیشننگ کی تیاری پر کام کر رہی ہے، جو ٹیکسٹائل کے مراحل میں ہے، شسی توانائی دنیا میں بڑی تیزی کے ساتھ مقبول ہو رہی ہے، پروفیسر ساجد میر نے کہا کہ موجودہ دور میں توانائی اور بالخصوص قابل تجدید توانائی کے ذرائع کو ترقی دینے کیلئے تحقیق پر توجہ مرکوز کی جائے۔

SENATE SECRETARIAT

MINUTES OF THE MEETING OF THE SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY ON 27TH JUNE, 2013, AT PAKISTAN SCIENCE FOUNDATION, ISLAMABAD.

A meeting of the Senate Standing Committee on Science and Technology was held on 27th June, 2013 at 11:30 a.m. in Pakistan Science Foundation, Islamabad. Senator Professor Sajid Mir was in the Chair.

2. The Following members attended the meeting:-

- | | |
|--------------------------------|--------|
| 1. Senator Karim Ahmed Khawaja | Member |
| 2. Senator Almas Parveen | Member |
| 3. Senator Hidayat Ullah | Member |

3. The agenda before the Committee was as under:-

- i) Briefing on the working and performance of the Pakistan Science Foundation.
- ii) Inspection of the inventions and projects of the Foundation.
- iii) Any other item with the permission of the chair.

4. The meeting started with recitation from the Holy Quran by Mr. Akhlaq Ahmad Tarar, Secretary, Ministry of Science and Technology.

5. At the outset, the Chairman Committee welcomed the members and participants of the meeting. He impressed upon the importance of Science and Technology in a progressive world. Thereafter, Professor Dr. Manzoor H. Soomro took the floor.

6. A detailed presentation was given by the Chairman Pakistan Science Foundation. The committee was briefed about the statutory functions, structure and achievements, of the Pakistan Science Foundation. It was said that the main objective was Pakistan Science Foundation is to promote and support scientific research activities and to popularize science culture in the country. He highlighted some of the programs running under the umbrella of the Pakistan Science Foundation which were: Research Support Program, R&D Industry Program, Natural Sciences Linkages Program under Pak-U.S endowment fund, Science Popularization Program, inquiry-based Science Education Program. The foundation is working on enhancing its collaborative ties with national and international scientific organizations.

7. The Committee was informed about the working of Pakistan Science Foundation subsidiary organizations such as Pakistan Museum of Natural History and Pakistan Scientific & Technical Centre. It was added that every year Z.A Hashmi R&D Award was presented to a scientist for his/her outstanding performance in the field of science and technology.

8. Meanwhile, the Secretary, Ministry of Science & Technology said that lack of sufficient funding was the major hindrance in the development and promotion of research projects in the country. The financial crunch being faced by the Pakistan Science Foundation is hampering its overall performance. At this point, the Chair assured the Secretary about his Committees support in streamlining financial issues of the Pakistan Science Foundation.

9. While highlighting the importance of science and technology, the Committee stressed upon enhancing media's role in promoting science culture in the country. The chair stated that the Pakistan Science Foundation research contributions should be known to the public. In this regard, improved media campaigning for the support of Pakistan Science Foundation and awareness / promotion of Science & Technology is highly needed. It was recommended that the Pakistan Science Foundation should establish science museums and science centers at provincial level in collaboration with Provincial Education Ministries. There is a need to have strong International linkages through international traveling expos and study tours which will ultimately benefit the country's research activities at all levels especially in the field of science and technology. Before concluding the meeting, the Chairman Committee categorically stated that during meetings working tea should be offered (if necessary) instead of formal lunch.

10. After detailed deliberations the Committee made following recommendations:

- i) The R&D sectors at Provincial level should enhance their liaison and cooperation with Ministry of Science and Technology.
- ii) It was recommended to build Natural History and Science Museums in all provinces.
- iii) The Ministry of Science and Technology along with the Pakistan Science Foundation should work in close collaboration for the promotion of science and technology in the country.
- iv) Adequate funding should be provided for the development of Pakistan Science Foundation.
- v) There is a need to have strong International linkages through international traveling expos and study tours which will ultimately benefit the country's research activities at all levels especially in the field of science and technology.
- vi) The Pakistan Science Foundation research contributions should be known to the public. In this regard, improved media campaigning for the support of Pakistan Science Foundation and awareness / promotion of Science & Technology is highly recommended.
- vii) In future, during Committee meetings, only working tea would be permissible.

11. The meeting ended with a vote of thanks to and from the Chair.

Sd/-

(**Zarghoona Shabbir**)
Secretary Committee

Sd/-

(**Prof. Sajid Mir**)
Chairman, Standing Committee

SENATE SECRETARIAT (PR-Cell)

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ملکی ترقی کا اہم ادارہ ریسرچ کے شعبوں کی بہتری پر ہے سینئر ساجد میر

ملک میں سماجی امداد کو فروغ دینے کیلئے تعلیمی اداروں میں تعاون قائم کیا جائے

سائنس فاؤنڈیشن ہال میں سمیٹ کی قائمہ کمیٹی برائے سائنس اینڈ ٹیکنالوجی کا اجلاس

اسلام آباد (خصوصی رپورٹر) پاکستان سائنس فاؤنڈیشن ایک اہم ادارہ ہے اور ملک کی ترقی کا اہم ریسرچ کے شعبوں کی ترقی پر منحصر ہے ریسرچ

اور آزاد خیاب میں پاکستان میوزیم آف نیچرل ہسٹری اور سائنس میوزیم کے ادارے وزارت برائے سائنس اینڈ ٹیکنالوجی، وزارت برائے تعلیم اور تعلیمی اداروں کے تعاون سے قائم کیے جائیں تاکہ ملک میں سائنسی ایجادات کو فروغ دے کر ملک کو ترقی کی راہ پر گامزن کیا جاسکے۔ ان خیالات کا اظہار سمیٹ کی قائمہ کمیٹی برائے سائنس اینڈ ٹیکنالوجی کے چیئر مین پیپلز پروڈیوسر ساجد میر نے پاکستان سائنس فاؤنڈیشن کے ہال میں سمیٹ کے اجلاس کی صدارت کرتے ہوئے کیا۔ کمیٹی کے اجلاس میں پیپلز ڈاکٹر کریم احمد خواجہ، الماس پروین اور ہدایت الخلاق احمد تارڑ، چیئر مین پاکستان سائنس فاؤنڈیشن طارق حمزوی، سیکرٹری پاکستان سائنس فاؤنڈیشن عطاء الحسن اور ڈی جی پائلٹ محمد اکرم شیخ اور دیگر اعلیٰ حکام نے شرکت کی۔ چیئر مین پاکستان سائنس فاؤنڈیشن طارق حمزوی نے کمیٹی کو ادارے کی کارکردگی اور فنکشن بارے میں تفصیلی آگاہ کرتے ہوئے کہا کہ پاکستان سائنس فاؤنڈیشن 1973 میں قائم ہوا اور اس ادارے کا کام سائنس کی ترویج و ترقی اور سائنس دانوں کو اعلیٰ تحقیقی کاموں کیلئے گرانٹس فراہم کرنا ہے۔ پاکستان سائنس فاؤنڈیشن کا سربراہ چیئر مین ہوتا ہے اور روزمرہ کے امور IPSF یگزینو کمیٹی کے سپرد ہوتے ہیں اور اسکے ممبران کی تعداد تین ہے۔ یہ ادارہ اپنے سائنسی اور تحقیقی کام اپنے سائنس ونگ کے علاوہ پاکستان سائنٹیفک اینڈ ٹیکنالوجی انفارمیشن سنٹر اور پاکستان میوزیم آف نیچرل ہسٹری کے ذریعے سرانجام دیتا ہے اس ادارے کی تحقیق کا بنیادی مقصد تعلیمی کی سماجی و معاشی ضروریات کو مد نظر رکھنے ہے۔ سائنسی سرگرمیوں کی مالی معاونت کرنا اور انہیں ترقی دینا ہے۔ بچوں کو سائنسی تعلیم کی طرف مائل کرنے کیلئے سائنسی پروگرام شروع کرنا ہمارے کئی ترجیحی ہے اور اس وقت بی ایس ایف کے 9 سائنس کاروان پچیس پورے ملک کے سکولوں کے لئے سائنسی فرمائشوں اور مہلوں کا اجتام کر رہے ہیں۔ جن میں 21 لاکھ سے زائد بچے شرکت کر چکے ہیں یہ ادارہ US؛ پارٹنٹ آف انجینیر کے تعاون سے زرعی تحقیقات اور خوراک کی کمی کو پورا کرنے کیلئے ایک فنڈ قائم کر چکا ہے۔ جس سے ملک میں زرعی سائنسدانوں کو تحقیق کیلئے فنڈ فراہم کر رہے ہیں۔ کسی بھی ملک کیلئے صنعتی ترقی کا کردار اہم ہوتا ہے اور یہ ادارہ صنعتی ترقی کے شعبوں کی معاونت کرنے کیلئے خصوصی توجہ دے رہا

ہے۔ ہمارا ادارہ پائلٹ سٹیٹ کاروں کو سائنس اور ٹیکنالوجی کی معلومات فراہم کرنے والا ملک کا سب سے بڑا ادارہ ہے اور اس ادارے نے پاکستان کے مختلف شعبوں میں اپنے دفاتر بھی قائم کیے ہوئے ہیں جن کا بنیادی مقصد سائنسی اور تحقیقی معلومات فراہم کرنا ہے اور تعلیمی اور غیر تعلیمی سائنسی معلومات فراہم کرنے والے اداروں سے روابط قائم کرنا اور قومی سطح پر لائبریریوں سے تعاون اور وسائل کا تبادلہ کرنا ہے۔ سیکرٹری سائنس اینڈ ٹیکنالوجی الخلاق احمد تارڑ نے کہا کہ حکومت سائنس اور ریسرچ کے اداروں سے صحیح تعاون کرے اور اگر ملک نے ترقی کرنی ہے تو ان اداروں کے فنڈز کی فراہمی وقت پر کرنی پائی جائے اور فنڈز کی کمی کی وجہ سے سائنس کے شعبے بگڑ سببوں سے زیادہ متاثر ہو رہے ہیں۔ ان شعبوں کی ترقی کیلئے ضروری ہے کہ پانچویں پلاننگ کی ان اداروں میں سرمایہ کاری کرائی جائے اور حکومت بجٹ میں ان اداروں کا خاطر خواہ حصہ رکھے۔ انہوں نے کہا کہ حکومت کے بہت سے ادارے مالی طور پر مسائل کا شکار ہیں کچھ اداروں کے پاس تو لازماً فنڈز موجود ہونے کے باوجود وہ نہیں ہیں۔ کمیٹی نے متفقہ طور پر فیصلہ کیا کہ ملک کی ترقی کیلئے انتہائی ضروری ہے کہ سائنس اور ریسرچ کے شعبوں کو فروغ دیا جائے وفاق اور صوبائی سطح پر ان اداروں کی معاونت کیلئے خصوصی توجہ دی جائے۔

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(PR-Cell)

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Senate body calls for marketing of S&T research

Staff Report

ISLAMABAD: The Senate's Standing Committee on Science and Technology (S&T) appreciated the initiatives of Pakistan Science Foundation (PSF) and expressed full satisfaction at the performance of the foundation. The committee chairperson Senator Prof Sajid Mir expressed the desire that the foundation may take steps for marketing the research so that the society could take benefit of it.

The committee met at the PSF on Thursday. Senator Mir chaired the meeting attended by the committee members and the committee secretary Zarghoona Shabbir. Ministry of Science and Technology (MoST) Secretary Akhlaq Ahmad Tarar and other senior officials were also present. PSF Chairman Prof Dr Manzoor H Soomro briefed the committee on the PSF statutory functions, structure and achievements, especially the foundation's Research Support Programme, R&D Industry Programme, Natural Sciences Linkages Programme (NSLP) under Pak-US Endowment Fund, Science Popularisation Programme, Inquiry-based Science Education Programme and national and international collaboration with different scientific organisations etc. He also briefed the commit-



ISLAMABAD: Senate Standing Committee on Science and Technology Chairman Senator Professor Sajid Mir presiding over a meeting of the committee at head office of Pakistan Science Foundation. APP

tee on the working of PSF subsidiary organisations Pakistan Museum of Natural History and Pakistan Scientific and Technological Centre.

The committee recommended that the end users and the industry may be involved from very beginning in the research projects for efficient results. Senator Sajid Mir inquired about the amount of award given by the PSF. The PSF chairman informed the committee that the foundation has instituted ZA Hashmi R&D Gold Medal Award, awarded every year to one scientist for his outstanding achievements in the field of science and technology. He said the award comprises a gold medal and Rs 100,000 cash.

The MoST secretary informed the committee about

financial problems being faced by the S&T organisations in general and PSF in particular, which is hampering the performance. He requested the committee to take up this issue at the forum of Upper House. The committee chairperson assured of his support in this regard.

The committee evinced keen interest in Pakistan Museum of Natural History's research, documentation, display and educational programmes and desired to pay a visit to this facility of great importance. The committee recommended that the PSF in collaboration with provincial education ministries should establish science museums and centres in the provinces. The committee also called for role of media in popularisation of science in the country.

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صوبوں میں نیچرل سائنسز اور سائنس میوزیم بنانے پر جائزہ کار کمیٹی

ریسرچ کا فائدہ انڈسٹری اور عام آدمی تک پہنچانا چاہئے، اداروں کے بجٹ میں اضافہ کیلئے بھرپور کوشش کی جائیگی، چیئرمین کمیٹی

ایسے منصوبے شروع ہی نہ کئے جائیں جن کی آگے ڈیڑھا نڈ نہ ہو، ریسرچ برائے ریسرچ سے گریز کیا جائے، وفاقی سیکرٹری

اسلام آباد (ساجد چوہدری اپنے نامہ نگار سے) سینٹ کی قائمہ کمیٹی برائے سائنس و ٹیکنالوجی نے چاروں صوبوں میں نیچرل سائنس میوزیم اور سائنس میوزیم بنانے پر زور دیتے ہوئے چاروں صوبائی وزارتوں برائے ایجوکیشن و سائنس اینڈ ٹیکنالوجی سے کہا ہے کہ اس حوالے سے وزارت سائنس و ٹیکنالوجی اور پاکستان سائنس فاؤنڈیشن سے رہنمائی حاصل کریں تاکہ سائنس و ٹیکنالوجی کو فروغ مل سکے۔ کمیٹی نے اپنی سفارشات میں کہا کہ صوبائی ادارے ریسرچ اینڈ ڈیولپمنٹ میں وفاقی وزارت سائنس و ٹیکنالوجی کے ساتھ اپنے روابط کو بڑھائیں۔ کمیٹی آئندہ مالی سال وزارت سائنس و ٹیکنالوجی اور اس کے ماتحت اداروں کے بجٹ میں اضافہ کیلئے بھرپور کوششیں کرے گی۔ قائمہ کمیٹی کا اجلاس جمعرات کو چیئرمین پروفیسر ساجد میر کی سربراہی میں سائنس فاؤنڈیشن کے آڈیٹوریم میں شروع ہوا تو چیئرمین پاکستان سائنس فاؤنڈیشن پروفیسر ڈاکٹر منظور حسین سومرو نے کمیٹی کو ادارے کی کارکردگی اور جاری منصوبوں کے بارے میں تفصیلی بریفنگ دی اور کہا کہ ادارے کو فنڈز کم ملتے ہیں۔ چیئرمین قائمہ کمیٹی پروفیسر ساجد میر نے ادارے پر زور دیا کہ

ریسرچ کا فائدہ انڈسٹری اور عام آدمی تک پہنچانا چاہئے اور جو کام وزارت کے ذمہ دارے کر رہے ہیں اس کو میڈیا کے ذریعے عام آدمی تک پہنچایا جائے۔ سینیٹر کریم خواجہ نے تجویزی کردہ تمام صوبوں میں نیچرل سائنس میوزیم کے قیام کیلئے قرارداد پاس کی جائے اس سے قبل وفاقی سیکرٹری سائنس و ٹیکنالوجی اخلاق احمد تارڑ نے قائمہ کمیٹی کو بتایا کہ ان کی وزارت اور ذمہ داروں میں فنڈنگ کی کمی بہت بڑا مسئلہ ہے۔ ہم مسلسل پلاننگ اور فنڈس ڈویژن سے فنڈز کیلئے کوششیں کر رہے ہیں۔ گزشتہ سال پی سی ایس آئی آر کے لوگ تنخواہیں نہ ملنے پر سڑکوں پر آگئے تھے۔ انہوں نے کہا کہ بھارت میں ہمارے پی سی ایس آئی آر ادارے کی طرز کا ایک ادارہ ہے جس کا گزشتہ مالی سال کا بجٹ تقریباً 50 ارب روپے پاکستانی بننا ہے مگر ہمارے اس ادارے کا آئندہ مالی سال کیلئے ڈیڑھ بلین کا بجٹ رکھا گیا ہے۔ وفاقی سیکرٹری نے کہا کہ اگر ملک نے ترقی کرنی ہے تو سائنس و ٹیکنالوجی کا بجٹ بڑھانا ہوگا جن ملکوں نے ترقی کی ہے ان کا آرائیڈ ڈی کا بجٹ جی ڈی پی کا 1 تا 4 فیصد حصہ ہوتا ہے مگر پاکستان میں یہ جی ڈی پی کا 0.5 فیصد حصہ ہے۔ اس کو بڑھانے کی ضرورت ہے۔ وفاقی سیکرٹری اخلاق احمد تارڑ نے سینیٹر ہدایت اللہ کی اس بات کو کہ پی ایس ایف ایسے منصوبوں پر بلین روپے ضائع نہ کرے جن کا کوئی فائدہ نہ ہو کو آگے بڑھاتے ہوئے پی ایس ایف کے چیئرمین کو ہدایت کی کہ آئندہ کوئی بھی منصوبہ شروع کرنے سے قبل اس کے استعمال کرنے والے کو ضرور ہاڈر کر لینا چاہیے۔ ریسرچ برائے ریسرچ پر زور نہ دیا جائے اور جس چیز کی آگے ڈیڑھا نڈ نہ ہو اس منصوبے کو شروع ہی نہ کیا جائے۔ انہوں نے واٹر ٹینجٹ کی طرف زور دینے کی ہدایت کی۔ انہوں نے کہا کہ ادارے کے اس طرح کے پراجیکٹس کا کسی یونیورسٹی میں ٹیوشے پروفیسر کو تو فائدہ مل جائے مگر اس کا سوسائٹی کو کوئی فائدہ نہیں پہنچے گا۔ انہوں نے ہدایت کی کہ پلاسٹک کے لفافوں کو ٹھکانے لگانے اور ڈسپوزیٹ کرنے کے خاتمے جیسے مسائل پر کام کیا جائے۔ وفاقی سیکرٹری نے ہدایت کی کہ بذریعہ میڈیا ریسرچ کے کاموں کو عام تک پہنچانے کیلئے منصوبہ تشکیل دیا جائے۔ وزارت بھرپور مدد کرے گی۔ اجلاس میں ممبران کمیٹی سینیٹر کریم خواجہ، ہدایت اللہ، الماس پروین، ایڈیشنل سیکرٹری سائنس و ٹیکنالوجی خاور نجیب اموان اور پی ایس ایف کے افسران بھی موجود تھے۔

SENATE SECRETARIAT

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قائمہ کمیٹی کے اجلاس میں کھانے کی روایت

ختم کی جائے، ساجد میر کی ہدایت

اسلام آباد (اپنے نامہ نگار سے) سینیٹ کی قائمہ کمیٹی برائے سائنس و ٹیکنالوجی کے چیئرمین پروفیسر ساجد میر نے وفاقی سیکرٹری سائنس و ٹیکنالوجی اخلاق احمد تارڑ سے کہا ہے کہ قائمہ کمیٹی کے اجلاس کے دوران کھانے کی روایت ختم کی جائے۔ یہ ہدایت انہوں نے جمعرات کو پاکستان سائنس فاؤنڈیشن میں اس ادارے کے حوالے ہائی صفحہ 5 نمبر 13

ساجد میر ہدایت
سے ہونے والے کمیٹی کے اجلاس کے خاتمہ پر وہیں جب ان سے کہا گیا کہ کھانا تیار ہے، پروفیسر ساجد میر نے کہا کہ کھانا میٹنگ کا حصہ نہیں ہونا چاہیے۔ انہوں نے وفاقی سیکرٹری سے کہا کہ وہ اس حوالے سے اپنے اداروں کے سربراہوں کو کہہ دیں۔

SENATE SECRETARIAT

MINUTES OF THE MEETING/VISIT OF THE SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY ON 24TH OCTOBER, 2013 AT PAKISTAN MUSEUM OF NATURAL HISTORY, ISLAMABAD.

A meeting / visit of the Senate Standing Committee on Science and Technology held on 24th October, 2013 at 11:00 a.m. at Pakistan Museum of Natural History, Islamabad. Senator Prof. Sajid Mir was in the Chair.

2. The Following members attended the meeting:-

- | | |
|-------------------------------------|-------------------|
| 1. Senator Karim Ahmed Khawaja | Member |
| 2. Senator Mrs. Farah Aqil | Member |
| 3. Senator Hidayat Ullah | Member |
| 4. Senator Mufti Abdul Sattar | Member |
| 5. Mr. Zahid Hamid | Ex-Officio Member |
| Minister for Science and Technology | |

3. The meeting started with recitation from the Holy Quran by Senator Mufti Abdul Sattar.

4. The Senate Standing Committee on Science and Technology visited the display and research repositories of PMNH, followed by a presentation on PMNH activities and achievements by DG, PMNH in audio visual hall.

5. The Director General, PMNH Dr. Ata Ul Mohsin, and other senior officials of PMNH gave a detailed guided tour of the facility to the committee members. Starting at a miniature model of the museum the Committee Members were told that the museum building was supposed to have eight blocks but the construction has been completed only for two blocks so far. And these two are the administrative blocks and hence are designed accordingly, which means that they are not suitable for display purposes resulting in improper displays of the specimens.

6. The Committee Members were then given a firsthand experience of the intuitive touch screen user interface of the computers. It was informed that such user-friendly interface helps the children to use the system themselves and they can choose very easily if they want to learn about rocks, minerals, plants or animals. These systems were donated by UNESCO and they are a great educational tool for the children.

7. About *Gharyal* specimen the members were told that *Gharyal* could grow up to 6 meters in length and this species is already extinct from Pakistan. The Members were told that displays of such extinct specimen help the children understand that our actions have dire consequences on the environment and its inhabitants. The members were further shown specimens of Blind Indus Dolphin and Green Sea Turtle. Members were also briefed about the Cave Life and Pako Gallery sections of the museum. It was told that U.S and French universities collaborate with PMNH for fossil collection and research.

8. The committee members were also briefed about the Balochitherium, which is supposed to be the largest land mammal after dinosaurs, and it is three times the size of an elephant. The Members were further taken to the Earthquake room, Gems Gallery and Children Discovery Center. They were apprised about the impact of such displays on children in having better understanding of what they study in the books.

9. Thereafter, the members were taken to the Bio Gallery. This section was of particular interest to the committee members because on the one hand it summarized the breathtaking beauty and diversity of the natural environment of our homeland and on the other hand it also showed the diverse effects of our actions. Senator Prof. Sajid Mir stressed on the fact that environmental preservation is vital for sustainable development, and environmental deterioration has much more long-term socio-economic side-effects than one might think. Bio Gallery provides information to visitors about flora and fauna of Pakistan. This Gallery has been divided into two sections. One section provides information about different animals, birds and plants found in different regions, ranging from Alpine heights to Seashores, of Pakistan. In this gallery different species of animals, birds and plants have been displayed in their natural habitat through three-dimensional dioramas. This section is subdivided into eight regions i.e. Alpine Region, Sub-Alpine Region, Coniferous forests of Kaghan, Swat, Chitral, Dir and Galiat, Potwar Region, plains, desert and coastal areas. The second section elucidates the problem of biodiversity of Pakistan. Three-dimensional Dioramas in this section highlight problems of air, noise, soil and water pollution, problems of deforestation, fire, soil erosion, problems of over-fishing, over-hunting and over-grazing, problems of water logging & desertification

10. The committee members were told that Pakistan has become the seventh most populous country in the world. On top of it, Pakistan's population is still increasing at 3% per annum. This unchecked increase in population is creating several problems, the most important of which is environmental pollution. Rapid urbanization, poor system of waste disposal, increase in industrial effluents, discharge of poisonous chemicals and smoke through factories and traffic, are all destroying our soil, water and air. This is not only diversely affecting human health and welfare but also posing serious threats to the survival of animal and plant life around us.

11. The committee members took keen interest in this section of the museum and appreciated that the children were learning about such things here, as these things are of great importance for sustainable development in the country. Different levels of sea and ocean environment were also shown and its significance was described. Members were told that currently the fishing zone for Pakistan is 200 Nautical Miles from the coast, and Pakistan has submitted an application to the U.N for the zone to be increased to 300 Nautical Miles. Moreover, the members were taken to the Rocks section of the museum. They were informed that Pakistan has reservoirs of all three kinds of rocks, i.e. Igneous, Metamorphic and Sedimentary. Furthermore, Pakistan has vast resources of almost all the minerals found in the igneous rocks.

12. Displays of Solar System, Earth Globe, Volcano, Dinosaurs, and Climate Change were shown. Towards the end of the tour the members were taken to the display of the Whale Shark, which is the world's largest fish, and it is the largest display of its kind. The Members were told that it is a shark but due to its huge size and eating patterns similar to that of a whale, it is called Whale Shark.

13. After the visit, DG, PMNH gave a presentation on its history, functioning, objectives and achievements. He said the Museum is actively engaged in research on natural sciences,

conservation of natural resources of Pakistan and public education. He said the Museum has unique displays including life size replica of Balochitherium and unique display of huge whale shark specimen. He said no other museum of the world has such a big specimen. The members were informed that the Museum is attracting over 100,000 visitors per year and playing very important role in imparting formal and informal education. He appreciated media role in disseminating information on the museum facilities.

14. Dr. Mohsin said 33 scientists are working in the museum and they have collected over 600,000 natural history specimens. However, he added, out of the huge collection they have displayed very few specimens due to lack of space.

15. PSF Chairman, reinforcing the same point, urged the committee to allocate funds for these purposes. Senator Prof. Sajid Mir said that the recommendation be forwarded to make the funds available as soon as possible. Senator Karim Ahmed Khawaja stated that he had already visited PMNH and was very pleased. After which he went to his district and spent Rs.7.5 million on the establishment of a similar facility. He also said that help from PMNH in the establishment of the facility would be greatly appreciated. The Minister assured him of possible help and guidance in this regard. Senator Prof. Sajid Mir pointed out that PMNH should also work on increasing public awareness about the activities of the museum. For this purpose he suggested that the museum should make the best use of both print and electronic media, moreover, social media could also be used for these purposes. The committee was told that now the museum has its own media cell and since the establishment of the media cell a significant increase in the number of visitors can be seen.

16. The Committee Members were also briefed about the Man and Biosphere Program, which is a very popular program at global level. Director PMNH also told the Committee that PMNH is also a member of International Council of Museums. This membership greatly increases the opportunities for national and international collaborations of the museum.

17. The members of the Committee appreciated the efforts of PMNH to develop such a state-of-art displays and attracting the visitors. The Federal Minister for Science and Technology thanked the committee for sparing time to visit PMNH and presented books published by PMNH to every member of the Committee.

18. In the end, Senator Prof. Sajid Mir said that he and his Committee appreciated the work done at PMNH. In this regard, best possible support would be extended to them.

19. After detailed deliberations the Committee made following recommendations:

- i) It was recommended that the financial issues which are hindering the development of Pakistan Museum should be resolved soon.
- ii) Steps should be taken to construct the remaining blocks of its building, according to the original plan.
- iii) The Committee recommended that the Pakistan Museum of Natural History should make the best use of both print and electronic media to increase the awareness of the Museum's activities.

20. The meeting ended with a vote of thanks to and from the Chair.

Sd/-

Sd/-

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میوزیم آف نیچرل ہسٹری کی عمارت کیلئے فنڈز کا اجرا یقینی بنایا جائے گا

ہمارے پاس 6 لاکھ سے زائد مختلف چیزوں کے نمونے ہیں لیکن جگہ کی کمی کے باعث ڈیپوٹیشن کر کے ڈائریکٹر جنرل پی ایم این ایچ قاسمی کا پیپر میں کی رپورٹ میوزیم کا دورہ اراکین کو مختلف جانوروں پر مشتمل نمونوں اور سمندری اشیاء سمیت نوادرات کے حقیقی نمونے دکھانے کے لیے اسلام آباد (ساجد چوہدری اپنے نامہ نگار سے) سینٹ میوزیم میں عوام کی دلچسپی بڑھانی جائے تاکہ یہ ادارہ ہماری نئی نسل میں سائنس اور تعلیم کے فروغ کیلئے اپنی خدمات جاری رکھ سکے۔ جمعرات کو قاسمی نے چیئر مین پروفیسر

اشیاء سمیت نوادرات کے حقیقی نمونے بھی دکھانے کے لیے ڈائریکٹر جنرل پی ایم این ایچ عطاء الحسن نے قاسمی کو بریفنگ دے دی ہے تاکہ میوزیم کی عمارت فنڈز کی کمی کی وجہ سے گزشتہ کئی سالوں سے مکمل نہیں ہو سکی ہے جبکہ کمی کمی ہے۔ ہمارے پاس 6 لاکھ سے زیادہ مختلف چیزوں کے نمونے موجود ہیں مگر جگہ نہ ہونے کی وجہ سے ان کا ڈیپوٹیشن کر سکتے۔ ہمارے پاس عوام کی معلومات کیلئے بہت بڑا ذخیرہ موجود ہے۔ اس ادارے میں 33 سائنسدان کام کر رہے ہیں مگر بجٹ بہت کم ہے۔ سٹیٹس فرج حاصل لے کر اس کی کمی کی کمی کی جا رہی ہے حالانکہ پہلے منصوبہ بندی کی جانی چاہتی تھی کہ جگہ کی زیادہ ضرورت ہے۔ اس کا جواب چیئر مین قاسمی نے پروفیسر ساجد میر سے مل کر دیا ہے کہ ان کے پاس بلان تھا۔ اس پر ڈائریکٹر جنرل عطاء الحسن نے قاسمی کو بتایا کہ اسے 800 ملین روپے کے پراجیکٹ کا کام پائی ہے۔ B بلاک بنے تھے۔ چیئر سے بلاک کے بلڈنگ بن چکے تھے کہ فنڈز ختم ہو گئے اور اس کے بعد اس منصوبے کیلئے فنڈنگ ہی نہیں ہو سکی۔ ڈیپوٹیشن ہال ابھی تک نہیں ہوا پائی ہیں۔ بریفنگ جاری تھی کہ کچھ دیر کیلئے مکمل بند ہو گئی۔ تاہم ڈی پی سی نے اپنی بریفنگ جاری رکھی۔ چیئر مین قاسمی نے پاکستان میوزیم کے کام کو سراہتے ہوئے کہا کہ قاسمی ادارے کے فنڈز کے اجراء کیلئے بھرپور کوشش کریں۔ وفاقی وزیر داہد حامد نے پاکستان میوزیم آف نیچرل ہسٹری کے حکام کو ہدایت کی کہ وہ منصوبے کا ریموڈر پی پی سی دن بتائیں تاکہ اس کیلئے فنڈنگ کرائی جاسکے۔ انہوں نے کہا کہ عامی فنڈنگ کیلئے پائیس کو اور جائیداد سے راپٹ کیا جاسکے اور کہا کہ قاسمی کی سفارشات پر عملدرآمد کیا جاسکے۔ سٹیٹس فرج کو کم خرچہ ہے۔ جو بڑی کمی ہے اور اس کے لیے آگے ہیں تو یہ ادارہ ہماری نسل کیلئے کام کر رہا ہے۔ اس کیلئے ہی فنڈنگ کا مسئلہ نہیں ہونا چاہیے۔ اجلاس میں سٹیٹس فرج حاصل ہدایت اللہ مطلق میڈیا سٹرکچر کے علاوہ ایگزیکٹو سیکرٹری نجیب خاں اور ایم جی ایس سیکرٹری ہ چیئر مین پی سی آر ڈی اے طارق مجازی چیئر مین پی ایس ایٹھ ڈائریکٹر جنرل ایچ پیو کے علاوہ دیگر سائنس دان کی موجودگی تھی۔

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اسلام آباد قائمہ کمیٹی کے چیئرمین ساجد میر اور ارکان کو پاکستان میوزیم آف نیچرل ہسٹری میں بریفنگ دی جا رہی ہے

سینیٹ قائمہ کمیٹی کا دورہ پاکستان میوزیم آف نیچرل ہسٹری

عالمی معیار کی تحقیق سے 60 ہزار نوادرات اور نمونے میوزیم کی زینت بنے، ڈی جی میوزیم

اسلام آباد (نامہ نگار خصوصی) سینیٹ کی قائمہ کمیٹی برائے سائنس و ٹیکنالوجی کے ارکان نے چیئرمین سینیٹر ساجد میر کی قیادت میں پاکستان میوزیم آف نیچرل ہسٹری کا دورہ کیا، کمیٹی کو بتایا گیا کہ صدیوں سے 33 لاکھ نوادرات اور نمونے میوزیم نے عالمی معیار کی تحقیق کی 60 ہزار نوادرات اور نمونے میوزیم کی زینت بنے۔ میوزیم کے ڈائریکٹر جنرل ڈاکٹر عطا الحسن نے بتایا کہ اسلام آباد، راولپنڈی اور ملک بھر میں سائنسی تعلیم اور نمونوں کی ترویج کیلئے میوزیم اور 33 لاکھ نوادرات اور نمونے میوزیم کی قدر خدمات انجام دیں۔ 60 ہزار نوادرات اور نمونے میوزیم کی زینت بنے ایک لاکھ سے زائد افراد ہر سال میوزیم کا دورہ کرتے اور معلومات سے مستفید ہوتے ہیں۔ انہوں نے کہا میوزیم صرف دو بلاکس پر مشتمل ہے منصوبے میں آٹھ بلاکس کی تعمیر کا وعدہ کیا گیا لیکن سموزوں جگہ کی عدم دستیابی کے باعث انتہائی محدود تعداد میں نوادرات و نمونوں کو نمائش کے لئے رکھا گیا ہے۔ قائمہ کمیٹی نے میوزیم کی کارکردگی کو سراہا اور اُمید ظاہر کی کہ ادارے کا عملہ سائنسدان اور افسران جانشینی کے ساتھ کام جاری رکھیں گے۔ وفاقی وزیر زہرا جامہ، چیئرمین قائمہ کمیٹی سینیٹر ساجد میر اور ارکان نے میوزیم کیلئے جدید تکنیکی سہولیات مزید بلاکس کی تعمیر اور تحقیقی سہولیات کیلئے فنڈز اور ہجرت تعاون کی تعمین وہاں کرائی۔

SENATE SECRETARIAT

MINUTES OF THE MEETING OF SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY

A Meeting of the Senate Standing Committee on Science and Technology was held on 8th January, 2014 at 11:00 A.M. in Committee Room No. 4, Parliament House Islamabad, under the Chairmanship of Senator Prof. Sajid Mir.

2. The following members of the Committee attended the meeting:-

- | | |
|-------------------------------------|-------------------|
| 1. Senator Adnan Khan | Member |
| 2. Senator Karim Ahmed Khawaja | Member |
| 3. Senator Mrs. Naseema Ehsan | Member |
| 4. Mr. Zahid Hamid Khan | Ex-Officio Member |
| Minister for Science and Technology | |

3. The Agenda before the Committee was as under:-

- i) Briefing on the working and performance of the COMSATS Institute of Technology (CIIT)
- ii) Any other item with permission of the Chair.

4. The meeting started with recitation from the Holy Quran by Honorable Chairman Committee Science & Technology. The Chairman Committee Senator Professor Sajid Mir said welcome to the members committee, Zahid Hamid Khan, Federal Minister for Science and Technology, Federal Secretary, Rector COMSATS and other officers who attended the meeting. The Chairman Committee also regretted for delay in the start of Committee meeting. Thereafter the Chairman Committee requested to Rector CIIT, to give briefing on the agenda item.

5. The Rector of COMSATS Dr. S. M. Junaid Zaidi, with the permission of the Chair, gave detailed briefing on the working and performance of COMSATS Institute of Information and Technology (CIIT) which included inter alia structure, Campuses, mission/vision, dual degree programs, year wise student enrolment, graduates/PhDs produced, total faculty, student financial aid/services, national awards, national and international linkages, virtual campus and its smooth governance.

6. The Rector of CIIT briefed the Committee that they adopted 100 children from across the country whose parents were killed in terrorism or were orphaned due to earthquake and flood and are kept in Pakistan Sweet Home, Abbotabad. They would be given education up to BS level and there expenditure would be carried out by the faculty members. It was also decided that to impart them gymnastic training, a coach from Romania would be hired. The Committee applauded the efforts of CIIT on humanitarian grounds.

7. The Rector informed the Committee that CIIT had unique honor to win 1st Federation of Pakistan Chambers of Commerce & Industry Achievement Award for its outstanding services in the category of Education & Training and this was the first award to any HEI in Pakistan. Besides this award the CIIT ranked 1st in Pakistan in Computer Science/IT, 2nd in Pakistan in

International Research Publications and 4th in Pakistan in Larger Universities League while it earned an overall three stars rating out of five star and a perfect score of five out of five in teaching, facilities and engagement, announced in Seoul on November 01, 2013.

8. The Committee was further briefed that the COMSATS was the brain child of Nobel Prize Winner, Professor Dr. Abdus Salam and was established in April 1998 as a Centre of Excellence of the Commission on Science and Technology for Sustainable Development in South and was chartered in August 2000. Highlighting its progress, the Rector informed that there were 8 Campuses and Research Centers while its students enrolment jumped from 277 to 27,029 and its faculty members increased from 15 to 2393 whereas its Academic Programs ballooned from 3 to 86. Moreover the Operating Budget increased from Rs. 64 million to Rs. 4065 while its Development Budget expanded from Rs. 36 million to Rs 1076 million. Replying to query from Committee on sources of funding, the Rector informed that CIIT received grants from HEC through M/O Science and Technology besides generating funds from its own sources i.e., fees charged from students. The Rector also highlighted that it was there stated policy not to deny admission merely on the basis of student's inability to pay fees and since its inception, Rs 1300 million have been dispersed among students as financial assistance.

9. The Rector CIIT further informed that since its inception, the number of Campuses increased to eight located at Islamabad, Wah, Attock, Lahore, Vehari, Sahiwal and Abbotabad including Virtual Campus established in Islamabad in 2012. Senator Karim Ahmed Khawaja asked from the Minister that the most of the Campuses are in Punjab and one in Khayber Pakhtunkhwa while no branch was opened in the Province of Sind and Baluchistan. The Federal Minister for Science and Technology informed that the Ministry had also requested to Chief Minister Sind and Baluchistan, to provide land for the establishment of CIIT and if provided than it would be established accordingly. On the issue of Virtual Campus, Senator Adnan Khan asked from the Rector that whether it worked at par with Allama Iqbal Open University or less than that University. The Committee was informed that at the moment the strength of Allama Iqbal University was much larger and the number of courses offered to the students were more than CIIT because AIOU was serving for the last so many years but the courses offered to virtual students are more advance than those offered by AIOU and was hopeful that the strength of the students would be 100000 within 2 years.

10. The Rector CIIT informed that at the moment 80 PhDs degrees were issued but assured the Committee that from 2015 to onward, the number of PhDs would be more than 1000 per year which would not only help out in fulfilling the demand of Pakistan but would also meet the requirement of CIIT which needed 1700 PhDs urgently at the moment. Moreover the University had established Faculty Development Academy for training its faculty members so as to update their knowledge commensurate to latest requirements and also to impart teaching methodology to fresh PhDs who were previously supposed to start teaching without professional training. Senator Adnan Khan said that in the current geo-political scenario there was constant threat of Cyber Crimes so the COMSAT should also contribute in checking Cyber Crimes.

11. The Rector also highlighted the jobs offered to the students in different sectors including IT/Telecom, Business, Government Services, Banking and Higher Education. The Committee was informed that in certain cases the students having higher GPA were even offered job before their completion of final semesters. The Committee was also informed that more than 60% students passed out from CIIT managed to get job within year.

12. After detailed discussions the Committee recommended as follow:-

- i) The Committee applauded the performance of COMSATS.
- ii) The network of COMSATS may be expanded to other provinces of Pakistan.
- iii) Donor agencies may be contacted for more funding to COMSATS

13. The meeting ended with a vote of thanks to and from the Chair.

Sd/-

(**Malik Arshad Iqbal**)
Secretary Committee

Sd/-

(**Prof. Sajid Mir**)
Chairman,
Standing Committee on Science & Technology

SENATE SECRETARIAT
(PR-Cell)

Name of Newspaper:

Pakistan Observer

Place of Publication

Islamabad.

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9-1-14

Liver transplant centre at Dow University



ISLAMABAD—Liver Transplant centre will be established soon at Dow University Karachi with the cooperation of Turkey, equipped with most modern medical facilities. Rector CIIT Dr Junaid Zaidi said this while briefing the Senate Standing Committee for Science and Technology, which met here Wednesday under the Chairmanship of Senator Professor Sajid Mir. Dr Junaid said establishment of liver transplant center at Dow University will facilitate people and they will be able to get treatment at affordable cost. Briefing, the Rector CIIT said Nobel Laureate Dr. Abdus Salalm had given the concept of COMSATS, adding CIIT has won first achievement award by Federation of Chamber and Commerce and Industry (FPCCI) for its services in the field of research. The COMSATS Institute of Information Technology (CIIT) aims to produce more than 1,000 PHDs annually by 2015 and work is finalized in this regard, he added. According to ranking of Higher Education Commission (HEC), CIIT stands at number 1 in Computer Sciences and Information Technology, while 4th in international research, he said, adding in five star ranking, COMSATS enjoys 3rd star ranking. Giving presentation, Rector CIIT DR Junaid said Chief Minister Punjab Shahbaz Sharif has awarded Laptops to 622 position holders of this institute. "We started our journey in 2000 with one campus and 277 students, which is now expanded to eight campuses and more than 27,000 students are getting education in different disciplines". Dr. Junaid said "We are included in first 100 universities of the developing countries". He told the committee about the Pakistan Sweet Home project of the institute and said more than 100 children who lost their parents in different terrorists blasts, are residing here. They are given the best facilities regarding education and medical and plan is to open another Sweet Home in Vehari, he added. Giving details about virtual campus of CIIT, Rector said "It was launched in June 2012 and currently 2,749 students are enrolled, adding the number of students will be raised up to 1 lac by 2015 as we plan to expand facilities". —APP



۱۹-۱-۹۹

قائمہ کمیٹی سائنس و ٹیکنالوجی کا ماسٹریٹس یونیورسٹی پر اعتماد کا اظہار

وزارت کو ادارے کے فنڈز سے متعلق بل قومی اسمبلی میں پیش کرنے ہدایت

اسلام آباد (آئی این پی) کمیٹی کی قائمہ کمیٹی برائے سائنس و ٹیکنالوجی نے ماسٹریٹس یونیورسٹی کی کارکردگی پر اعتماد کا اظہار کرتے ہوئے وزارت سائنس و ٹیکنالوجی کو ہدایت کی کہ ادارے کے فنڈز سے متعلق بل قومی اسمبلی میں پیش کیا جائے، وفاقی وزیر سائنس و ٹیکنالوجی نے کمیٹی کو یقین دلایا کہ ادارے کے جن

منصوبوں کیلئے فنڈز درکار ہیں انکی فنڈنگ رپورٹ وزارت کو بھجوائے جانے پر فنڈز کیلئے بل قومی اسمبلی میں پیش کروایا جائے گا، سینیٹر نسیم الہی نے اجلاس میں ماسٹریٹس میں ڈاکٹر عبدالسلام کے نام سے بلاک تعمیر نہ کرنے پر شدید احتجاج کیا، قائمہ کمیٹی کا اجلاس چیئر مین سینیٹر پروفیسر ساجد میر کی زیر صدارت پارلیمنٹ ہاؤس میں (باقی صفحہ 5 نمبر 11)

۱۱۔ ۱۱۔ ۱۱

ہوا، اجلاس میں ماسٹریٹس یونیورسٹی کی کارکردگی پر غور کیا گیا، ریکٹر ماسٹریٹس یونیورسٹی جنید زیدی نے کمیٹی کو ادارے کی کارکردگی پر بریفنگ دیتے ہوئے کہا کہ ماسٹریٹس یونیورسٹی مکمل طور پر خود مختار ادارہ ہے اور ادارے کو چلانے کے لئے حکومتی اداروں سے کسی قسم کے فنڈز نہیں لئے جاتے، سینیٹر کریم احمد خواجہ ریکٹر نے کمیٹی کو بتایا کہ لاہور میں ماسٹریٹس یونیورسٹی واحد ادارہ ہے جو مختلف قسم کے ڈیٹیل ڈگری کے پروگرام کروا رہا ہے جس کی فنڈنگ حکومت پاکستان کر رہی ہے۔

SENATE SECRETARIAT

(PR-Cell)

NAME OF NEWSPAPER:

JANG

PLACE OF PUBLICATION:

Rawalpindi

DATE OF ISSUE:

9-1-14

کامسٹنس انسٹیٹیوٹ آف آئی ٹی میں سائبر کرائمز کے کنٹرول کا شعبہ قائم کیا جائے

سندھ یونیورسٹی کو ڈاکٹر عبدالسلام کے نام سے منسوب کرینٹیج تجویز کمیٹی قائم کی گئی کا اجلاس

اسلام آباد (اپنے نامہ نگار سے) کمیٹی کی قائمہ یعنی برائے سائنس و ٹیکنالوجی نے کامسٹنس انسٹیٹیوٹ آف انفارمیشن ٹیکنالوجی پر زور دیا ہے کہ سائبر کرائمز کے کنٹرول کی تحقیق کا شعبہ قائم کیا جائے اور کامسٹنس کے سندھ یونیورسٹی کو ڈاکٹر عبدالسلام کے نام سے منسوب کرنے کی تجویز دی۔ کمیٹی کا اجلاس بدھ کو پارلیمنٹ ہاؤس میں چیئر مین یعنی پروفیسر ساجد میر کی زیر صدارت ہوا جس میں ممبران یعنی سینیٹرز کریم اسے خواجہ نسیم احسان بلال الرحمن کے علاوہ وفاقی وزیر سائنس و ٹیکنالوجی زاہد حامد وفاقی سیکرٹری سائنس و ٹیکنالوجی کامران علی قریشی سمیت وزارت کے افسران نے شرکت کی۔ کامسٹنس کے حوالے سے ہونے والے قائمہ کمیٹی کے اجلاس میں کمیٹی نے متفقہ طور پر کامسٹنس انسٹیٹیوٹ آف انفارمیشن کی تعلیم و تحقیق اور طلبہ و اساتذہ کو تعلیم و تربیت کی سہولیات کے حوالے سے کارکردگی پر پاکستان کا فخریہ تعلیمی ادارہ فریڈا اور کمیٹی نے امید ظاہر کی کہ کامسٹنس اقوام عالم میں پاکستان کے علمی و تحقیقی ایجنٹ کو مزید اجاگر کرنے میں مددگار ثابت ہوگا۔ ریکٹر کامسٹنس ڈاکٹر ایس ایم جنید زیدی نے کمیٹی کو بریفنگ دیتے ہوئے بتایا کہ کامسٹنس کے قیام کا تصور پاکستان کے پہلے عالمی نوبل انعام یافتہ ڈاکٹر عبدالسلام نے 1980ء میں پیش کیا تھا۔ کمپیوٹر سائنس اور آئی ٹی ریسرچ میں کامسٹنس میں کا پہلا نمبر سے جبکہ بین الاقوامی ریسرچ میں تیسرا اور ایچ آئی ٹی کی ریسرچ میں چوتھی بڑی یونیورسٹی کا اسی ادارے کو درجہ حاصل ہے۔

SENATE SECRETARIAT

(PR-Cell)

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EXPRESS

PLACE OF PUBLICATION:

Islamabad

DATE OF ISSUE:

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کا مسیٹس ملک کا علمی و تحقیقی امیج مزید اجاگر کریگا، قائمہ کمیٹی

وزارت اطلاعات کے بجٹ میں 30 فیصد کٹوتی کے اقدامات بارے تفصیلات طلب

اسلام آباد (خصوصی نمائندہ) سینٹ قائمہ کمیٹی برائے سائنس اینڈ ٹیکنالوجی نے کامیٹس توام عالم میں پاکستان کے علمی و تحقیقی امیج کو مزید اجاگر کرنے میں مددگار ثابت ہوگا، کمیٹی کا اجلاس چیئرمین سینیٹر پروفیسر ساجد میر کی صدارت میں ہوا، ریکٹر کامیٹس ڈاکٹر جنید زیدی نے بریفنگ دیتے ہوئے بتایا کہ 2015 تک پی ایچ ڈی طلباء کی تعداد 1000 میں تفصیلات طلب کر لی ہیں۔

کردی جائیگی۔ وفاقی وزیر زاہد حامد نے کہا کہ سندھ اور بلوچستان میں بھی یونیورسٹی کمپس قائم کرنے کیلئے بھرپور مالی معاونت فراہم کریں گے۔ اسی کی قائمہ کمیٹی برائے اطلاعات و نشریات نے وزارت اطلاعات کے بجٹ میں 30 فیصد کٹوتی کے اقدامات کے بارے میں تفصیلات طلب کر لی ہیں۔

SENATE SECRETARIAT

MINUTES OF THE MEETING OF THE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY HELD ON 15th JANUARY, 2014 AT 10:30 A.M. IN COMMITTEE ROOM NO. 4, PARLIAMENT HOUSE, ISLAMABAD

A meeting of the Standing Committee on Science and Technology was held on 15th January, 2014 at 10:30 am in Committee Room No.4, Parliament House, Islamabad. The following members attended the meeting:

- | | | |
|----|-------------------------------------|-------------------|
| 1. | Senator Prof. Sajid Mir | Chairman |
| 2. | Senator Mufti Abdul Sattar | Member |
| 3. | Senator Karim Ahmed Khawaja | Member |
| 4. | Minister for Science and Technology | Ex-Officio Member |
| 5. | Senator Hari Ram | Special Invitee |
2. The agenda before the Committee was as under:-
- i) Briefing on the working and performance of the Pakistan Engineering Council.
 - ii) Any other item with permission of the Chair.
3. The meeting started with recitation from the Holy Quran by Senator Mufti Abdul Sattar.
4. Chairman Committee Prof. Sajid Mir welcomed the Minister Science and Technology, the Secretary, the Additional Secretary, the Committee Members and all other participants of the meeting.
5. The Minister Science and Technology thanked the Chairman Committee for providing him and his team a chance to brief the honorable members on the working and performance of Pakistan Engineering Council. A brief introduction was done by the PEC team. Thereafter, Engineer Khadim Hussain took the floor. He said as per PEC ACT 1976, the PEC governing body has a total of 65 members;

| | | | |
|-----|-------------------|----|---------------------------------------|
| (a) | Chairman | 01 | By election |
| (b) | Sr. Vice Chairman | 01 | By election |
| (c) | Vice-Chairmen | 04 | By election - one from each province. |
| (d) | Member | 40 | By election |
| (e) | Registrar | 01 | By designation |
| (f) | Member | 18 | By nomination |

| | |
|--------------|-----------|
| Total | 65 |
|--------------|-----------|

6. On inquiry by the Chairman, Engineer Khadim Hussain added that the elected members are elected by the 160,000 registered engineers of Pakistan. The management structure of PEC is committee based, and different committees are constituted to perform different functions. For instance, the Accreditation Committee is responsible for the accreditation process of different programs in various universities. Similarly, the CPD Committee works on Continuing Professional Development activities, which are a way to keep the knowledge of our engineers up to date. The management structure also incorporates various departments, e.g. I.T Department, Finance Department etc.

7. The PEC performs following functions:

- i) Registration of Engineers, Consulting Engineering Firms, Constructors and Operators
- ii) Accreditation of engineering programs
- iii) Ensuring and managing CPD
- iv) Establishing standards for engineering contracts, costs and services
- v) Assistance to the Federal Government as a Think Tank
- vi) Providing forum for arbitrations, pertaining to disputes in construction and consultancy contracts
- vii) Promotion of engineering profession in totality.

8. The Chairman Committee inquired about the qualification criteria for registering consulting engineering firms. Engineer Khalid Hussain said that the firm has to be owned by an engineer with a minimum required experience of 10 years. The Chairman further inquired about the arbitration function of PEC i.e. the process under which disputes come to PEC for arbitration. It was said that usually the disputes are forwarded to PEC through courts. Experts are provided to the parties upon which both parties show confidence. He arbitrates the disputes and his decision is binding. The arbitration is conducted in accordance with the Arbitration Act. Additionally, the Ministry also refers cases to PEC for arbitration.

9. It was also informed that about 249 engineering programs from 95 universities across the country have been accredited so far. Regarding international linkages of PEC it was said that PEC has affiliations with the following bodies:

- i) Associate Member ,World Federation of Engineering Organization (WFEO) - 2009
- ii) Member, Federation of Engineering Institutions of Islamic Countries (FEIIC) - 2009
- iii) Corresponding Member of Commonwealth Engineer's Council (CEC) – 2009
- iv) Member of Network of Accreditation Bodies of Engineering Education of Asia (NABEEA) - 2009
- v) Provisional Signatory of Washington Accord (WA) – 2010
- vi) Provisional Member of IPEA, (Int. P Eng.) – 2011

10. The Members were apprised about the importance of Washington Accord Membership. It was said that taking full membership of the Washington Accord is a vital element in the future vision of PEC, as getting this membership would mean that engineers accredited by Pakistan Engineering Council would be recognized in 15 countries and Pakistan engineers would be able

to avail jobs in those countries. Moreover, Engr. Abdul Qadir Shah, Chairman, PEC has been elected as Deputy President of the Federation of Engineering Institutions of Islamic Countries (FEIIC) in its 12th Meeting of General Assembly held on 22-25 December 2013 at Madina, Saudi Arabia.

11. While discussing the registration process, the Committee was informed that a person is registered as an Engineer who acquires accredited engineering qualification. There are two types of registered engineers in Pakistan: **1) Registered Engineer**, a person who holds a Bachelor degree in engineering discipline/program duly accredited with PEC or any International professional body like ABET, ECUK, JABEE, FEANI, Engineers Australia, and Engineers Canada. **2) Professional Engineer**, a registered engineer having five years of professional experience, whether working privately or in the employment of an engineering public organization, and has passed the prescribed engineering practice examination (EPE) becomes professional engineer. The bifurcation is according to the international standards and in accordance with the standards of the Washington Accord. There are 70,762 Registered Engineers, and 89,628 Professional Engineers in Pakistan, totaling up to 160,390. While replying to Chairman's query he said that the ratio of engineers to population is as follows in some of the countries:

7 : 1000 in Japan
3.5 : 1000 in U.S
2.5 : 1000 in U.K
1.5 : 1000 in India
0.8 : 1000 in Pakistan

Actually around engineers pass out and the trend is increasing.

The Chairman asked if B.Tech diploma holders are considered equal to engineering graduates. Engineer Khadim Hussain replied that the two are not equal. Moreover, the matter was taken to court as well and the court also decided the same.

12. Regarding CPD activities being performed by PEC, the Committee was apprised that renewal of engineer's registration is subject to acquiring CPD. CPD is being implemented through PEC and Professional Engineering Bodies (Universities and professional organizations/institutions). In 2013, PEC conducted 131 such activities which included Seminars, Training Workshops and Short Courses.

The Council is involved in establishing standards for engineering contracts, cost and services, and so far PEC has developed 19 such standards and guidelines. It also provides technical assistance to various government and private organizations (free of cost for government organizations). Moving forward, he told the Committee that they are also working towards energy efficiency and renewable energy. After the energy audit of PEC building they were able to decrease the usage by 4 times, from 44KV to 10KV. The Chairman asked if it was possible to do the same for all the government buildings. The Minister Science and Technology replied that it is possible and they are working on PC-1 regarding the same issue.

13. The Committee was further apprised that the Energy Code developed by PEC can result in up to 15% reduction in energy consumption. It is encouraging universities to introduce energy related specialized programs. Moreover, PEC got a grant from Japan and installed Pakistan's First On-Grid Solar Electricity System of 178 Kilo Watts installed each at PEC and Planning Commission. Now it meets most of its energy needs through solar energy and for the rest depends upon IESCO. Additionally on the weekends the energy produced is put on the grid, and using Smart Meter is subtracted from the amount taken from the grid, thus netting the total amount, which has resulted in about 40% reduction. The Minister, Science and Technology

added that this system was very expensive when installed, around Rs. 50 Crore, however, now the cost has reduced and the increased cost of energy production in general has also made this system a more feasible option.

14. The PEC Think Tank committee on energy, headed by Engineer Ahsan Iqbal is working on the Pakistan Energy Vision 2035, which is in final stages. The Committee observed various technical standards and codes that PEC has developed; including the Seismic Provision, Energy Provision and Fire Safety Provision that have been added to the Building Code of Pakistan. Regarding service structure for engineers, the Committee was told that currently there is no well-defined structure and sometimes it happens that an engineer inducted in Grade 17 retires after he hardly reaches Grade 18 and in some cases diploma holders are senior office holders but they hardly have any authority, so much so that they are not even authorized a “technical sanction”. Therefore, we need Professional Engineers for such offices. PEC has submitted a proposed service structure to government and it is under consideration.

15. The Committee was informed that PEC is active on social media to stay connected with the engineering community. Job Shop has also been developed for the engineers. Now engineers can register and renew their licenses from any branch offices of the branch offices of PEC, earlier they could do so only at the Head Office. The Council also publishes alerts in media, informing people about engineering programs that are and aren't accredited by PEC so that people who wish to pursue engineering can make the right decision.

16. Moving forward, the Committee was briefed about future goals of PEC. It was told that one of the key objectives of PEC is to gain full membership of the Washington Accord. The Chairman Committee asked what was needed to achieve the target. It was said that PEC needs to increase its CPD activities, quality improvement of the university programs and Washington Accord's set benchmarks needed to be met. Moreover, the Council is striving hard to elevate Pakistani universities up to the international standards. Currently in Pakistan, out of the 95 accredited universities only 4 to 5 are up to the mark. Calendar year 2015 is the target that PEC has set for itself to achieve the goal. If Pakistan gets Washington Accord's membership, it will also be eligible for International Professional Engineers Agreement (IPEA) membership.

17. The Chairman PEC told the Committee that PEC is planning to open its offices in Jeddah to facilitate 4,000 Pakistani engineers working there. The Chairman Committee along with other Members appreciated the PEC team for the strenuous efforts they having been putting in to get the desired objectives.

18. The meeting ended with a vote of thanks to and from the Chair.

Sd/-
(**Zarghoona Shabbir**)
Secretary Committee

Sd/-
(**Prof. Sajid Mir**)
Chairman,
Standing Committee on Science & Technology

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تمام سرکاری اداروں میں متبادل انرجی پروگرام شروع کیا جائے سینٹ کمیٹی

ساجد میر کی زیر صدارت اجلاس پی ای سی کی کارکردگی انجینئرنگ کے فروغ کی پالیسی کا جائزہ لیا گیا۔

اسلام آباد (اپنے نامہ نگار سے) سینٹ کی قائمہ کمیٹی سائنس و ٹیکنالوجی نے کہا ہے کہ تمام سرکاری اداروں میں متبادل انرجی پروگرام شروع کیا جائے۔ بدھ کو پروفیسر ساجد میر کی زیر صدارت اجلاس میں پاکستان انجینئرنگ

کونسل کی کارکردگی اور انجینئرنگ کے شعبے کے فروغ کی پالیسی کا جائزہ لیا گیا۔ وفاقی وزیر سائنس و ٹیکنالوجی زاہد حامد نے بتایا کہ نواز حکومت سولہ انرجی منصوبوں پر کام رہی ہے۔ سیکرٹری پاکستان انجینئرنگ کونسل خادم حسین بھٹی نے بتایا کہ اس ادارے میں 178 گھنٹہ صلاحیت کے حامل آن گریجویٹس سولہ لگا گیا ہے اور متبادل انرجی پروگرام کے تحت اپنی پالیسی فیصد بجلی کی کھپت بچانی ہے۔

SENATE SECRETARIAT

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قائمہ کمیٹی کی تمام سرکاری اداروں میں آڈٹ انرجی پروگرام شروع کرنے کی سفارش

موجودہ حکومت توانائی کے مسئلہ پر قابو پانے کے لئے شمسی توانائی کے منصوبوں پر بھی کام کر رہی ہے، وفاقی وزیر زاہد حامد

سروس سٹرکچر منظوری کیلئے وزارت خزانہ کو ارسال کیا ہے، منظوری کیلئے کمیٹی مدد کرے، پاکستان انجینئرنگ کونسل کا مطالبہ

اسلام آباد (نوائے وقت نیوز) ملک میں توانائی گزشتہ روز پارلیمنٹ ہاؤس میں ہوا۔ اجلاس میں رہے ہیں۔ توانائی کے بحران کے حل کے حوالے سے کے بحران پر قابو پانے کیلئے کمیٹی کی قائمہ کمیٹی برائے پاکستان انجینئرنگ کونسل کی کارکردگی اور انجینئرنگ سائنس اینڈ ٹیکنالوجی نے تمام سرکاری اداروں میں آڈٹ انرجی پروگرام شروع کرنے کی سفارش کی ہے جبکہ وفاقی وزیر سائنس اینڈ ٹیکنالوجی زاہد حامد نے کمیٹی کو بتایا کہ موجودہ حکومت توانائی کے مسئلہ پر قابو پانے کے لئے شمسی توانائی کے منصوبوں پر بھی کام کر رہی ہے۔ کمیٹی کا اجلاس سینیٹر پروفیسر ساجد میر کی زیر صدارت گزشتہ روز پارلیمنٹ ہاؤس میں ہوا۔ اجلاس میں رہے ہیں۔ توانائی کے بحران کے حل کے حوالے سے پاکستان انجینئرنگ کونسل کی کارکردگی اور انجینئرنگ کے شعبے کے فروغ کی پالیسی کا جائزہ لیا گیا۔ سیکرٹری وائٹ کی صلاحیت کے حامل آن گریڈ سوسائٹیز کا پامیا پاکستان انجینئرنگ کونسل خادم حسین بھٹی نے کمیٹی کو بتایا ہے اور انرجی آڈٹ پروگرام کے تحت اپنی چالیس فیصد بجلی کی کھپت بچائی ہے۔ اجلاس میں قائمہ کمیٹی نے تمام سرکاری اداروں میں آڈٹ انرجی پروگرام لگانے کی سفارش کی جس پر وفاقی وزیر زاہد حامد نے کہا کہ اس منصوبے پر کام ہو رہا ہے۔



16-1-14

انجینئرز کے سروں سٹرکچر کی بہتری کیلئے تعاون کریں گے قائم کمیٹی

اسلام آباد (نامہ نگار خصوصی) سینیٹ کی قائم کمیٹی برائے سائنس اینڈ ٹیکنالوجی اجلاس میں پاکستان انجینئرنگ کونسل (پی ای سی) نے انجینئرز کے سروں سٹرکچر کی بہتری کیلئے تعاون کریں گے قائم کمیٹی کی تشکیل کے حوالے سے وزارت خزانہ کو ارسال کردہ سرری کی منظوری کیلئے تعاون مانگ لیا جس پر کمیٹی نے مکمل تعاون کی یقین دہانی کرا دی۔ کونسل نے (باقی صفحہ 5 نمبر B)

اعلان کیا کہ سعودی عرب میں 4 ہزار سے زائد انجینئرز اور دیگر ممالک میں ہزاروں انجینئرز کے مسائل کے حل کیلئے رابطہ دفاتر قائم کئے جا رہے ہیں جبکہ کمیٹی نے زور دیا کہ ملک بھر میں تمام سرکاری اداروں کا "توانائی آڈٹ پروگرام" تیز کر لیا جائے جس پر وفاقی وزیر سائنس و ٹیکنالوجی نے کمیٹی کو بتایا کہ منصوبہ تیزی سے آگے بڑھ رہا ہے اور موجودہ حکومت کسی توانائی کے منصوبوں کو ترجیح دے رہی ہے۔ بدھ کو چیئر مین سینیٹر پروفیسر ساجد میر کی زیر قیادت قائم کمیٹی کا اجلاس ہوا تو اس موقع پر انجینئر کے تحت پاکستان انجینئرنگ کونسل (پی ای سی) سے متعلق تفصیلات طلب کی گئیں جس پر کونسل (پی ای سی) کے سیکرٹری خادم حسین بھیٹی نے کمیٹی کو ادارے کی کارکردگی و پالیسی پر تفصیلی بریفنگ دیتے ہوئے بتایا کہ کونسل کا قیام پی ای سی ایکٹ 1976 کے تحت عمل میں ادارے کے امور چلانے کیلئے گورننگ باڈی تشکیل دی گئی جس کے اراکین کی تعداد 65 ہے ان میں سے 40 ممبران کا انتخاب اور 18 کی نامزدگیاں ہوتی ہے خادم حسین بھیٹی نے کمیٹی کو یہ بھی بتایا کہ سعودی عرب میں اس وقت 4 ہزار سے زائد انجینئرز کام کر رہے ہیں ان کے مسائل کے حل کیلئے سعودی عرب سمیت دیگر ممالک میں رابطہ دفاتر قائم کئے جا رہے ہیں۔ توانائی کے بحران کے حل کے حوالے سے سیکرٹری پی ای سی نے کمیٹی کو بتایا کہ ادارے نے 178 کلو واٹ کے صلاحیت کے حامل آن گرڈ سولر سٹلم

لگا یا گیا اور زرعی آڈٹ پروگرام کے تحت اپنی 40 فیصد بجلی کی بچت کی ہے۔ اس موقع پر قائم کمیٹی نے سرکاری اداروں میں توانائی آڈٹ پروگرام شروع کرنے کی سفارش کی جس پر وفاقی وزیر سائنس و ٹیکنالوجی زاہد خاں نے کہا کہ ہر سرکاری ادارے کے توانائی آڈٹ پروگرام کو آگے بڑھانے کیلئے منصوبے پر کام کا آغاز ہو چکا ہے اور بتایا کہ موجودہ حکومت کسی توانائی منصوبوں پر کام کو تیزی سے آگے بڑھانے کیلئے کام کر رہی ہے۔ پاکستان انجینئرنگ کونسل کے حکام نے قائم کمیٹی سے سفارش کی کہ کونسل کے سروں سٹرکچر کی منظوری کیلئے وزارت خزانہ کو ارسال کی ہوئی سرری کی منظوری کیلئے کمیٹی کونسل کیساتھ تعاون کرے جس سے انجینئرز کی کارکردگی کی بنیاد پر ان کے گریڈز میں ترقی کے مسائل حل ہو سکیں گے جس پر انجینئر میں کمیٹی نے مکمل تعاون کی فراہمی کی یقین دہانی کرائی۔

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سرکاری اداروں میں آڈٹ انرجی پروگرام شروع کیا جائے، سینٹ کمیٹی

وفاقی حکومت سولہ انرجی کے منصوبوں پر کام کر رہی ہے، وفاقی وزیر زاید حامد کا خطاب

اسلام آباد (خصوصی نمائندہ) سینٹ کی قائمہ کمیٹی برائے سائنس اینڈ ٹیکنالوجی کے چیئرمین سینئر پروفیسر ساجد میر نے قائمہ کمیٹی کے اجلاس کی صدارت کرتے ہوئے کہا کہ ملک کے تمام سرکاری اداروں میں آڈٹ انرجی پروگرام شروع کیا جائے جبکہ وفاقی وزیر سائنس اینڈ ٹیکنالوجی زاید حامد نے کہا کہ نواز حکومت سولہ انرجی منصوبوں پر کام کر رہی ہے۔ قائمہ کمیٹی اجلاس میں پاکستان انجینئرنگ کونسل کی کارکردگی اور انجینئرنگ کے شعبے کے فروغ کی پالیسی کا جائزہ بھی لیا گیا، سیکرٹری پاکستان انجینئرنگ کونسل نے بریفنگ میں توانائی بحران کے حل کے حوالے سے بتایا کہ اس ادارے میں 178 کھوٹ کے صلاحیت کے حامل ان گریڈ سولر سٹم لگایا گیا ہے اور انرجی آڈٹ پروگرام کے تحت اپنی 40 فیصد بجلی کی کھپت بچائی ہے، قائمہ کمیٹی نے تمام سرکاری اداروں میں آڈٹ انرجی پروگرام لگانے کی سفارش کر دی جس پر وفاقی وزیر زاید حامد نے کہا کہ اس منصوبے پر کام ہو رہا ہے، پاکستان انجینئرنگ کونسل حکام نے سفارش کی کہ گئے سروس سٹرکچر کی منظوری کیلئے وزارت خزانہ کو مراسلہ ارسال کیا ہوا ہے جسکی منظوری کیلئے کمیٹی آئی مدد کرے جس پر چیئرمین کمیٹی نے مکمل سپورٹ کرنا یقین دلایا۔ پاکستان انجینئرنگ کونسل کے سیکرٹری خادم حسین بھٹی نے بتایا کہ اس ادارے کا قیام پارلیمنٹ کے پاس کر دینی ای سی اے ایکٹ 1976 کے تحت عمل میں آیا جا چکا بنیادی مقصد انجینئرنگ کے شعبے کو فروغ دینا اور عملدرآمد میں بہتر معیار قائم کرنا تھا، ادارے کے معاملات کو چلانے کیلئے ایک گورننگ باڈی تشکیل دی گئی جسکے ممبران کی تعداد 65 ہے جس میں ملک بھر کے انجینئرز حصہ لیتے ہیں۔

SENATE SECRETARIAT

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حکومت سرکاری اداروں میں ازجی سسٹم لگائے، قائمہ کمیٹی

کمیٹی کی پاکستان انجینئرنگ کونسل کے انجینئرز کو جلد از جلد سرورس سٹریٹجی دینے کی ہدایت

اسلام آباد (آئی این پی) سیٹ کی قائمہ کمیٹی ہمارے
سائنس اینڈ ٹیکنالوجی نے سفارش کی ہے کہ وفاقی حکومت
تمام وزارتوں اور سرکاری اداروں میں سی آئی ٹی لگانے پر
والے آڈٹ ازجی سسٹم لگائے جس سے 40 فیصد تک
کل تعداد ایک لاکھ (باقی صفحہ 5 بقیہ نمبر 32)

60 ہزار 390 ہے جن میں سے 89 ہزار 628 پروفیشنل
انجینئرز اور 70 ہزار 762 رجسٹرڈ انجینئرز ہیں۔ ہر سال
12 ہزار انجینئرز ڈگری حاصل کرتے ہیں اس وقت
پاکستان کے 4 ہزار سے زائد انجینئرز سعودی عرب میں
خدمات انجام دے رہے ہیں۔ قائمہ کمیٹی سائنس اینڈ
ٹیکنالوجی کا اجلاس بدھ کو یہاں پارلیمنٹ ہاؤس میں کمیٹی
کے چیئرمین پیٹریسٹ ساجد میر کی زیر صدارت منعقد ہوا۔
اجلاس میں وزیر سائنس و ٹیکنالوجی کامران علی قریشی،
چیئرمین انجینئرنگ کونسل حامد حسین، کمیٹی دیگر اعلیٰ حکام نے
شرکت کی۔ انجینئرنگ کونسل کے سیکرٹری نے کمیٹی کو کونسل کی
کارکردگی اور کام کرنے کے طریقہ کار بارے تفصیلی
بریفنگ دی۔

SENATE SECRETARIAT

MINUTES OF THE MEETING / VISIT OF THE SENATE STANDING COMMITTEE ON SCIENCE AND TECHNOLOGY HELD ON 26TH MAY, 2014 AT NATIONAL INSTITUTE OF OCEANOGRAPHY (NIO), KARACHI.

A meeting / visit of the Senate Standing Committee on Science and Technology was held on 26th May, 2014 at 11:00 a.m. at the National Institute of Oceanography (NIO), Karachi. Senator Prof. Sajid Mir was in the Chair.

2. The Following members attended the meeting:-

| | |
|---------------------------------|--------|
| Senator Mufti Abdul Sattar | Member |
| Senator Dr. Karim Ahmed Khawaja | Member |
| Senator Mrs. Almas Parveen | Member |
| Senator Mrs. Farah Aqil | Member |
| Senator Hidayat Ullah | Member |
| Senator Mrs. Naseema Ehsan | Member |

3. The agenda before the Committee was as under:-

- i) Research Laboratories and ongoing indigenous and International Projects being carried out by the National Institute of Oceanography (NIO) at Karachi.
- ii) Any other item with the permission of the Chair.

4. The meeting started with recitation from the Holy Quran by Senator Mufti Abdul Sattar.

5. The Chairman welcomed the participants. After brief introduction of the participants, the Director General NIO took the floor.

6. Dr. Monawwar Saleem, Acting Director General NIO with the permission of the Chair highlighted the establishment of NIO Karachi in 1982 with reference to the Pakistan's maritime zone, and it's coast-line extended up to 1000 km where the Institute has a scope and jurisdiction to work. His brief introduction on NIO covered the Vision, Objectives, Functions viz-a-viz resources available with Institute in terms of manpower, laboratories, field the stations, and funding through annual development programmes and the recurring budget provided to NIO through the Ministry of Science and Technology. He informed the Committee that targets being pursued by NIO have been re-aligned according to the 11th Five Year Plan and Vision 2025 documents of the Planning Division.

7. A copy of the presentation by DG NIO is at Annexure-II. While reviewing different programmes of NIO, the members of Committee expressed keen interest in resource potential of the ocean and its exploitation through R&D. The Committee was informed that creeks in the Indus delta provide for high energy waves in the sea and this potential can be exploited for power generation. Preliminary studies have therefore been undertaken in the past by NIO on tidal waves, presence of gas hydrates in the Pakistan maritime zone can also be used for power

generation, following experimentations and R&D in technologically advanced countries like Japan and China.

8. The Standing Committee stressed on better coordination mechanisms for sharing of data, and information between various agencies working at federal and provisional levels. In this respect NIO is already working closely with institutions like Pakistan Navy, Metrological Department and other provisional agencies. A number of issues of practical nature pertaining to coastal areas, like: flow of sewage water into the sea, land subsidence, sea water intrusion, water quality, oil spillage, sea level & temperature rise with threat to marine life etc. were point out by the members as of high importance. These were discussed by the members in detail. The main concern expressed by the members was on feasible solutions and suitable remedial measures that require focus in the development program being executed by the relevant agencies. It was noted that NIO,s role as per its mandate is mainly to observe, conduct studies and make recommendation.

9. Deliberating on the NIO international linkages, the Committee was informed that major cooperation in the recent years has been with China, under which a number of exchanges of experts were possible between NIO and the Second Institute of Oceanography (SIO), China. Under an MoU signed by the Ministry of Science and Technology with Chinese State Oceanic Administration (SoA), in May 2013, Establishment of a Ground Station for Marine Remote Sensing is being pursued. Collaboration of NIO with State Key Laboratory Estuarine and Coastal Research (SKELC), East China Normal University is being pursued for scientific collaboration, capacity building of the NIO by training its scientists in China. The Director General was assisted during the presentation by scientists of NIO present during the meeting.

10. The Standing Committee was informed that R&D in Oceanography was an expensive proposition for which Pakistan lacks in resources. In view of this, international collaborations and partnerships are of critical significance for NIO towards it's vision in achieving it's targets. The NIO has no sea going research vessel which is highly needed to pursue the Research Programme of the NIO.

11. The Standing Committee was briefed on the current PSDP projects at NIO. Objectives and background with status of implementation and budgetary constraints in implementing were highlighted in the briefing. It was noted that work potential of the Institute is being constrained by lack of human resources and a continuing brain drain. Special emphasis is therefore required on HRD and Capacity Building of the Institute while improving promotion and incentive mechanisms that are conducive to merit, performance and contribution to NIO. The improvement of the working environment for the scientists was also discussed.

12. The Standing Committee was briefed on the Pakistan Continental Extension Programme (CSEP), that has been implemented by the NIO with approval of ECNEC at a cost of Rs.500 million. Dr. Asif Inam, Project Director explained different phases of the projects; involving desk studies, trainings, data acquisition, surveys etc. undertaken through collaborations and links with international partners; leading to submission. The Committee was informed that Pakistan is signatory to the UN Convention on Law of the Sea – 1982, and has also ratified it since 1997. This entitled Pakistan to prepare and submit it's case to the UN Commission on Limits of the Continental Shelf (CLCS), claiming extension of Pakistan limits of it's Continental Shelf on the basis of geophysical evidences and in accordance with the Law of the Sea. NIO was successful on submitting Pakistan claim to the UN body before the given deadline in April, 2009. After a formal presentation of the case before the UN Commission in New York in august 2013, Pakistan has been defending its submission before a sub-commission of the CLCS; as such Pakistan's claim is heading towards its logical acceptance by the Commission on the basis of intensive work conducted by NIO in coordination with other stakeholders in

Pakistan and with international partners. This will entitle Pakistan to add an area of 50,000 sq km in the existing EEZ of Pakistan providing a great potential of exploiting marine sources for boosting Pakistan's economy in the future. The Committee was informed that UNCLOS-1982 is a great achievement of the United Nations as the Law emerged over a period of 50 years through a collective human wisdom, while working together by all coastal states at the forum of the UN.

13. The Committee was briefed on the national program of LBOD project implemented by WAPDA with assistance from NIO. Mr. Syed Moazam Ali highlighted NIO's involvement in the hydraulics studies in the project.

14. After detailed deliberations the Committee made following recommendations:

- i) Studying the potential of Tidal Energy from the creek waters, should be further investigated; a fresh study on this be undertaken by NIO.
- ii) Improve the coordination and collaboration mechanisms between various agencies working in the maritime areas of Pakistan.
- iii) The project on seas going research vessel needs to be revived as it is highly needed to pursue Research Programmes of the NIO.
- iv) Services reforms in NIO for the recognition services of the working scientists on merit when considering them for promotions and incentives.

15. The Committee members then visited the various sections and Laboratories of the Institute. Mr. Syed Mohsin Tabrez explained the activities and function of the National Oceanographic Data Centre (NODC), the national repository for the ocean data. Dr. Nuzhat Khan briefed on the working and scope of the Chemistry section. A state of the art laboratory on water analysis has recently been established under PSDP project. Dr. Asif Inam introduced the Geology section. Ms. Saira Ishaq and Dr. Samina Kidwai briefed the Committee of the on-going activities in the Biological Section. Mr. D. A. Razzaq briefed the members of the NIO specific Library holdings and the constraints. The Committee visited the NIO museum where Dr. Naeem Ahmed explained the working of various Physical oceanography instruments. Finally the Committee went to the roof top of the Institute to see around installations in the adjoining area of NIO located at the coastline very near to the Ocean.

16. The Chairman along with other Committee members thanked the Director General NIO and his team of Scientists for their dedicated work on national importance and assured complete support of the Senate Standing Committee on Science and Technology in putting across the NIO achievements, its functions, scope and the Recommendations of the Committee to all concerned.

17. The meeting ended with a vote of thanks to and from the Chair.

Sd/-
(**Zarghoona Shabbir**)
Secretary Committee

Sd/-
(**Prof. Sajid Mir**)
Chairman,
Standing Committee on Science & Technology