

DEVELOPMENT ON DUAL USE ISSUES IN PAKISTAN

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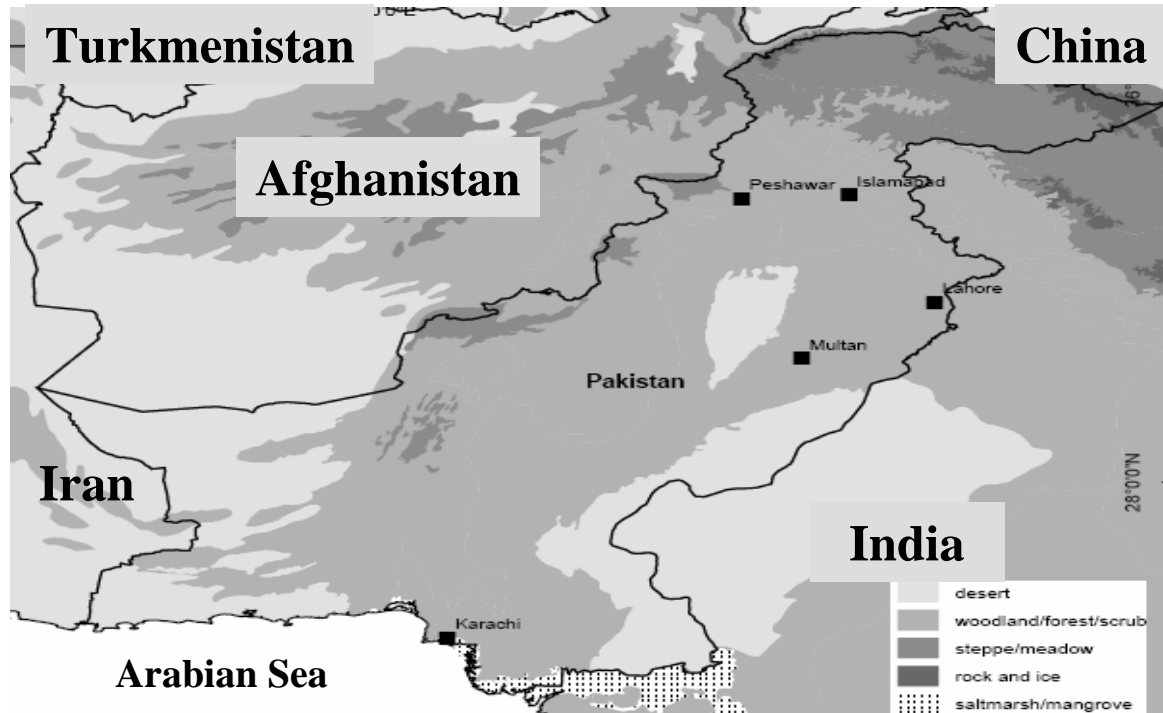
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Content

- ❖ Country Profile
- ❖ Present Status of Life Sciences
- ❖ Pakistan position on International Conventions/Treaty etc.
- ❖ Recent Developments on dual use.



Profile

Population
Arable Land (AL)
% employed in Agri.
Agri. as % GDP
Agricultural GDP
Ratio of AL/Population

Pakistan

165 million
22 million ha
42.2
22 %
96.1 billion
0.13

Pakistan: Life Sciences Status

- ❖ Less than < 2% acquire higher education
- ❖ 122 Universities (Public & Private Sector)
- ❖ > 40 – Life Sciences Department
- ❖ 28 Biotechnology Centres
- ❖ 25-Medical Colleges
- ❖ 06-Health Sciences Universities
- ❖ 02 Animal Health & Veterinary Universities
- ❖ 102-Research Institutes

- ❖ No P-III facility exist in the country.
- ❖ P-II facility in (2-3) Centres

Source: Zafar, Y(2007) JoAOAC JoAOAC 90(5): 1500-1507
Masood, E (1997) Nature, 376:631-638

28 Biotech. Centres in Pakistan



Pakistan: International Treaties position

A. SIGNATORY/RETIFIED

BWC or BTWC

IPPC

CBD

WTO (TRIPS)

B. SIGNATORY ONLY

CPB

C. NOT SIGNED

NPT

PTC

Regulatory bodies: Pakistan

- ❖ **BWC** Foreign Officer, Govt. of Pakistan
- ❖ **CBD** National Biosafety Directorate
Ministry of Environment, Govt. o
Pakistan
[http:// www. environment.gov.pk](http://www.environment.gov.pk)
- ❖ **TRIPS** IPO – Pakistan
[http:// www. ipo.gov.pk](http://www.ipo.gov.pk)
- ❖ **Nuclear Power** PNRA, Govt. of Pakistan
- ❖ **IPPC** MinFAL, Govt. of Pakistan

Recent developments of Biosecurity in Pakistan

1. National Training Seminar on Biosafety and Biosecurity Initiative, Islamabad

June 18-19, 2007

Biosecurity Engagement Programme,
US Department of State:

Dr. Janson Rao	Senior, Director BEP
Dr. Joe Kozlovac	VSDA
Dr. Ren Salerno	Saudia Labs
Dr. Bob Hawley	ABSA
Dr. Stephen Clark	EPA
Dr. Shahan U. Kazmi	PARC, Pakistan

2. Visit of US Delegation to Pakistan

July 11, 2007

OBJECTIVE

To assess and advise on Biosecurity Issues.

TEAM MEMBER

Maj. General Stephen Vaughn

Joint Programme
Executive Officer

Mrs. Katherine Reeves

Mr. Phillip Greenbaum

Chief Analyst and
Asst to Maj.Gen.Stephen

Michael Vincen

Sr. Scientist

Captain Robert William Barnhill

ADC

Colonel Gene Mc Conville, Army Attache

US Embassy Islamabad

Maj. John Van kan, Asst Army Attache

US Embassy Islamabad

3. Regional One Day Seminar on Biosafety & Biosecurity

September, 2007

Venue:

- ❖ Agha Khan Medical University, Karachi
- ❖ Attended by nearly 100 medical doctors/technicians

4. Biosafety & Biosafety Training at Graduate/Undergraduate levels

Venue:

November 01, 2007 HEC, Islamabad

Guest:

Dr. Terrence Taylor, Director, International Council for the Life Science (ICLS), Washington, DC, USA

Organization: NCGLS/HEC, Islamabad www.ncgls.hec.gov

Participant: 20 Govt officials/academicians/Researchers

Consensus:

- ❖ Development of Biosafety and Biosecurity curricula.
- ❖ Capacity building by organizing training courses and workshops.
- ❖ Establishments of regional training centres of Biosafety
- ❖ Enhancing public private partnership in this regard.

Transparency, comprehensively applied and actively enforced, is an indispensable method of protection against the abuse of biotechnology

Prof. John Steinbruner, University of Maryland

Source: New Scientist, 15th November, 2006