



# Report

## Workshop on Population Projection

May 23 - 27, 2016, Islamabad



Compiled by:  
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National Institute of Population Studies  
Ministry of National Health Services Regulation & Coordination  
Islamabad

**Report**  
**Workshop on “Population Projections”**  
**May 23-27**  
**Organized at NIPS**  
**in collaboration of Population Council and UNFPA**

## **INTRODUCTION AND BACKGROUND**

National Institute of Population Studies (NIPS), since it was created in 1986, have focused exclusively on methodological research, cross sectional surveys and impact studies to produce research based recommendations for strategic policy planning.

NIPS also aims at providing capacity building training on research methodology, demographic techniques, computer software for data analysis and techniques of writing research papers by doing in-depth analysis of complex data collected by NIPS through Pakistan Demographic and Health Surveys including household characteristics, maternal and child health, socio economic, family planning and reproductive health issues.

Executive Director, NIPS was leading the working group on Population Projection for the 10th Five Year Plan (2010-2015) created by Planning Commission in 2009.

Keeping in view the need of the time and mandate of NIPS a permanent Working Group on population projections has been constituted with the consent of all stakeholders.

Following the past practice, the members of previous working group on population projection were called and agenda of the proposed population projection was discussed. The importance of projection in the absence of actual census was acknowledged by all stakeholders. It was also decided in the working group that NIPS will provide five days training workshop on population projection. The provincial staff of concerned departments i.e. Population Welfare, Bureau of Statistics, Planning and Development, Health and staff of NIPS will be benefited from this training workshop. The concerned organizations, departments and concerned Ministries have already consented to spare their technical staff for learning population projection.

In pursuit of agreed agenda a 5-day training workshop was organized from May 23-27 May 2016 (Programme at Annex-1). The training workshop was attended by senior level technical staff from provinces who have been involved in planning process (List of participants at Annex-2).



Two participants from Pakistan Bureau of Statistics, one from M/o NHSR&C, three from Punjab, four from Sindh, three from Khyber Pakhtunkhaw and eight from Islamabad. However, the representative from Balochistan could not attend the training workshop. The workshop was organized with the following objectives:-

The main objective of the workshop was to build the capacity of the relevant National and Provincial professionals regarding:

- The significance and importance of population projections in developing plans and policies in the population, health and development sector
- Generating National and Provincial Population projections,
- Gain “hands on” experience in use of analytical tools for data analysis
- Utilizing data and projections and convert it into evidence for effective plans and policies

**Three Sessions for each day were designed as under:-**

**Day-1**

- From Policies to Program: Projections as a Bridge
- Historical Perspective: Responding to Changing Demographic Scenarios
- Population Projections in 2016: Current day Requirement and Data Gaps
- Understanding Population Projections

**Day-2**

- NIPS Projections (Previous & Current).
- Introduction and Indicators from MICS and other sources
- Different available data sources: Introduction and Indicators from PDHS
- Introduction of Spectrum
- Installation of Spectrum

**Day-3**

- How to enter input data in DemProj module
- How to get results from DemProj module
- Practical Exercises
- Grouping the Results and Producing Outputs

#### **Day-4**

- Introduction of RAPID module
- How to enter input data in RAPID module
- Practical Exercises

#### **Day-5**

- Provincial Group Presentations
- Closing Session
- Certification

### **Expected outcomes of the workshop**

At the end of the workshop, the participants were supposed to be:

- Well conversant with the importance of population projections in developing plans and policies in the population, health and development sector
- Well acquainted in calculating national and provincial projections, data analysis and its interpretations.
- Have sufficient “hands on” experience in use of analytical tools for data analysis
- Able to utilize the available information and convert it into evidence for effective plans and policies.

### **Participants Expectations**

The expectations were found to be in line with the objectives of the workshop. Participants were encouraged to monitor the workshop process and draw the attention of the facilitator if some expectations were not being addressed.

### **Resource Persons**

Highly qualified professionals with practical experience and best practices were invited to make presentations on topics of the programme and guide the participants on practical exercises.

They included:

- |    |                      |   |
|----|----------------------|---|
| 1. | Dr. Arshad Mahmood   | - Deputy Chief of Party, Health Systems Strengthening Component USAID’s MCH Program |
| 2. | Dr. Ali Muhammad Mir | - Director Research, PC   |
| 3. | Ms. Azra Aziz        | - Sr. Fellow/Director (R&S)   |
| 5. | Dr. Aysha Sheraz     | - Research Fellow   |
| 6. | Mr. Zafar Zahir      | - Research Fellow   |
| 7. | Mr. Khan Muhammad    | - Programme Manager, PC   |
| 8. | Mr. Maqsood Sadiq    | - Senior Programme Officer, PC  |

## **Workshop Process**

The programme involved individual presentations and group exercises as well as input from the coordinators, and presentations from source persons, specialized in their own particular fields of population. There were many opportunities to raise questions or concerns throughout the Workshops. The following approaches were used

- Lectures/presentations
- Discussions
- Group work
- Practical Exercises and
- Sharing of group work



## **Day 1: INTRODUCTIONS AND TRAINING OVERVIEW**

### **Opening of Workshop**

The Workshop was opened on May 23, 2016 at about 9.30 am by Dr. Mukhtar Ahmad, Executive Director of the National Institute of Population Studies (NIPS), who welcomed the participants. He emphasized the importance of the workshop since it will go to impact on the development of the provinces. He therefore, called on trainees to participate fully and actively in the workshop so as to derive the maximum benefit from it and realize the workshop objectives. He also informed that the workshop is being organized jointly by the Population Council, Islamabad and UNFPA. Dr. Mukhtar Ahmad welcomed and thanked the provincial participant for showing concern in learning population projection for future planning at provincial levels. He also gave a brief background of the need to organize workshop. Mr. Zafar Zahir - the workshop coordinator, also took turns to address the participants. The participants have allowed introducing themselves and stating their expectations from the training workshop.

### **Lecture One: From Policies to Programmes: Projection as a Bridge**

The session was delivered by Dr. Ali Muhammad Mir. It was to give participants a quick



overview of how the projection could be used to develop policies based on future demands for food, water, energy, housing, labour force, economy, climate change, services with regard to FP need and help set targets for policies and monitor progress.

### **Lecture Two: Historical Perspective: Changing Demographic Scenario**

The second session was dedicated to understand the demographic Transition Theory and its relations with population and development. Dr. Arshad Mahmood also deliberated on the proximate determinants of fertility and today's requirement and data gapes for projecting population in 2016.

### **Lecture Three: Understanding Population Projections: Concepts and Methodology**

The third session was designed to give common understanding of all the terms and concepts required as background for making population projections. Ms. Azra Aziz gave brief descriptions of components of population change and explained the meaning and calculation procedure of crude birth rate, death rate, age structure, population distribution, sex ratio, natural increase, growth rate, dependency ratio, TFR, MMR, internal and international migration, urbanization, open population, closed population, doubling time. She also deliberated on mathematical models of population projection especially cohort component method was explained with practical examples as this is the mostly used in population projections.

## **Day 2 : NIPS PROJECTION**

### **Lecture Four: Overview of Previous and Current Projections**

First session of day 2 was devoted for the background of projections carried out in 2009 and requirement of current projections. Mr. Zafar Zahir gave an overview of the Planning

Commission's population projections prepared by NIPS in 2009 under the chairmanship of former Executive Director NIPS. He emphasized on the input requirement for making projection. He mentioned that the following input indicators of the latest data sets are required for the projection:

- Base year population (1998 Census)
  - Total population
  - Age distribution by sex
  - Rural-urban distribution
- Fertility rate (TFR) (PDHS 2006-07, 2012-13)
- Mortality rate (PDS 1997,1999, 2007)
- PSLM 2013-14
- MIC Surveys (Punjab 2014; Sindh 2014, Khyber Pakhtunkhaw 2008, Balochistan 2010, FATA 2010)

#### **Lecture Five: MICS PRESENTATIONS: Introduction and Indicators from MICS**

Provincial Representatives from Punjab, Sindh and Khyber Pakhtunkhaw presented Multiple Indicators Cluster Survey (MICS) findings conducted in their provinces by Bureau of Statistics.



#### **Lecture Six: Different Available Data Sources: Introduction and indicators from PDHS**

Dr. Aysha Sheraz presented all sources of population and demographic data that can be utilized for the projection. She also presented key findings of PDHS 2012-13 for the learning of provincial participants.

## **Lecture Seven: Introduction to Population Projection Software (Spectrum)**

Mr. Khan Muhammad gave presentation on the Spectrum, very powerful, friendly software used for projection. He explained main features of the software. This software contains “Demproj” which is used to prepare population projection. He also gave introduction of software “RAPID” which is used to present population growth and its linkages with socio economic sectors.



## **Day 3, 4 : ENTER DATA INTO COMPUTER (Demproj, RAPID)**

Next two days were fully devoted for the hand on practice and making projection for different provinces. All participants were guided on one-o-one bases to make them understand the projection process. Four groups were formed to make presentations for the closing session. Before the closing session, each group made mock presentation by the group presenter for guidance and feed back from the fellow participants.

## **Day 5 : GROUP PRESENTATIONS AND CLOSING SESSION**

### **Workshop Conclusions**

In the closing session Dr. Hassan Mohtashami, Representative, UNFPA; Dr. Zeba A. Sathar, Country Director, Population Council was invited as chief guests. In the beginning of the closing session presentations on Population Projection were made for each province. NIPS’ young participants made presentation on Balochistan because no representative from this province attended the workshop.





In the concluding session of the workshop the key features of the workshop were summarized by Ms. Seemin Ashfaq, Director (Communication) Population Council. The workshop closed with concluding remarks from the Executive Director, NIPS, Dr. Zeba A. Sathar, Country Director, Population Council and Dr. Hassan Mohtashami, Representative, UNFPA.

Executive Director, NIPS welcomed the guests and thanked all participants for showing keen interest in learning and making comprehensive presentations. He once again emphasized on joint efforts of provinces for the national and provincial projections to meet the need of the day till the census is conducted. Both the chief guests deliberated and appreciated the commitment and presentation of the participants and wish them success in better planning in their respective provinces. At the end Chief guests presented certificates to the participants and a group photo was taken to record the memorable event.

## **Training Materials**

Soft copies of all handouts and presentation of workshop documentations were provided to the participants. Hand-outs were prepared and given to participants to take home as resource reference which will hopefully constantly refresh them on the knowledge and skills acquired during the workshop.

## **Certification**

Participants who successfully participated in all the sessions of the training were presented with certificates of participation.

## **WORKSHOP EVALUATION BY PARTICIPANTS**

At the end the workshop participants were asked to comments on the training.

## Workshop on “Population Projections”

May 23 - 27, 2016, Islamabad

DAY ONE (Monday, May 23)	DAY TWO (Tuesday, May 24)	DAY THREE (Wednesday, May 25)	DAY FOUR (Thursday, May 26)	DAY FIVE (Friday, May 27)
9:30-10:00 <b>Opening Session</b> <ul style="list-style-type: none"> <li>• Tilawat</li> <li>• Welcome Remarks by Dr. Mukhtar Ahmed, Executive Director NIPS</li> <li>• Workshop Overview by Mrs Seemin Ashfaq Director Communications Population Council</li> <li>• Introduction of Participants</li> </ul>	9:00-11:00 <b>Population Projections in 2016: Today's Requirement and Data Gaps (AM)</b>	9:00-10:30 How to enter input data in DemProj module (KM & MS)	9:00-10:30 Introduction of RAPID module (KM & MS)	9:00-10:00 <ul style="list-style-type: none"> <li>• Presentation by Baluchistan</li> <li>• Presentation by KP</li> </ul>
	Tea Break 11:00- 11:15			
10:00- 11:00 From Policies to Program: Projections as a Bridge (AMM)	11:15- 13:30 Introduction and Indicators from MICS (Provincial Representatives)	10:30- 11:30 Practical Exercises (KM & MS)	10:30- 11:30 How to enter input data in RAPID module (KM/MS)	10:00- 11:30 <ul style="list-style-type: none"> <li>• Presentation by Punjab</li> <li>• Presentation by Sindh</li> <li>• Q&amp;A</li> </ul>
Tea Break 11:00- 11:15	Lunch Break 13:30-14:30	Tea Break 11:30- 11:45		
11:15 -12:45 Historical Perspective: Changing Demographic Scenario (AM)	14:30 -15:30 Different available data sources: Introduction and Indicators from PDHS (AS)	11:45 - 13:30 <ul style="list-style-type: none"> <li>• How to get results from DemProj module.</li> <li>• Practical Exercises (KM &amp; MS)</li> </ul>	11:45-13:30 <ul style="list-style-type: none"> <li>• Practical Exercises on RAPID module (KM &amp; MS)</li> <li>• Q&amp;A (MS&amp;KM)</li> </ul>	11:45-13:30 <b>Closing Session</b> <ul style="list-style-type: none"> <li>• Welcome Remarks and Overview of workshop</li> <li>• Introduction of Participants</li> <li>• Group Presentations</li> <li>• Remarks by Dr. Mukhtar Ahmed, Executive Director NIPS</li> <li>• Remarks by Dr Zeba A. Sathar, Country Director Population Council,</li> <li>• Closing Remarks by Dr Hassan Mohtashami, Representative UNFPA</li> <li>• Certificate Distribution</li> <li>• Group Picture</li> </ul>
12:45- 15:30 Understanding Population Projections (AA)		Lunch Break 13:30-14:30		
Lunch Break 13:30-14:30				
Session Continued Understanding Population Projections	15:30 – 17:00 <b>Introduction to Population Projection Software</b> <ul style="list-style-type: none"> <li>• Introduction of Spectrum.</li> <li>• Installation of Spectrum (MS &amp; KM)</li> </ul>	14:30- 17:00 <ul style="list-style-type: none"> <li>• <b>Grouping the Results and Producing Outputs.</b></li> <li>• Practical Exercises (KM &amp; MS)</li> </ul>	14:30 -17:00 Practical Exercises (KM & MS)	
15:30- 17:00 NIPS Projections (Previous & Current). (ZZ)				

**List of Resource Persons and Participants of Training on  
“Population Projection”, 23-27 May, 2016**

Sr. No.	Name	Designation	Organization	Address	Contact Cell/Landline	E-mail
	<b><i>Resource Persons</i></b>					
1	Dr. Arshad Mahmood	Deputy Chief of Party	JSI-USAID			<a href="mailto:drarshadmahmood@yahoo.com">drarshadmahmood@yahoo.com</a>
2	Dr. Ali Muhammad Mir	Director (Research)	Population Council	H # 7, Street # 62, F-6/3, ISB		
3	Ms. Seemin Ashfaq	Director (Communication)	Population Council	H # 7, Street # 62, F-6/3, ISB		
4	Mr. Khan Muhammad	Programme Manager	Population Council	H # 7, Street # 62, F-6/3, ISB	0333-7836676	<a href="mailto:kmohammad@popcouncil.org">kmohammad@popcouncil.org</a>
5	Mr. Maqsood Sadiq	Sr. Program Officer	Population Council	H # 7, Street # 62, F-6/3, ISB	0345-5152961	<a href="mailto:msadiq@popcouncil.org">msadiq@popcouncil.org</a>
	<b><i>Participants</i></b>					
6	Mr. Abdul Waheed	Director	M/o NHR&C Population Wing	10-Shaheed-e-Millat Sectt. Islamabad	0300-5533368	<a href="mailto:dir_fat@yahoo.com">dir_fat@yahoo.com</a>
7	Mr. Naseer Ahmad	Chief Statistical Officer	Pakistan Bureau of Statistics	21-Mauve Area G-9/1, Islamabad	0300-9462425 051-9106570	<a href="mailto:mr.naseer@gmail.com">mr.naseer@gmail.com</a>
8	Mr. Muhammad Riaz	Assistant Census Commissioner	Pakistan Bureau of Statistics	Statistics House, 21-Mauve Area, G-9/1, Islamabad	0334-5006042 051-9106536	<a href="mailto:pbscoord@gmail.com">pbscoord@gmail.com</a>
9	Ms. Kaneez Amna	Statistical Officer	Pakistan Bureau of Statistics	H# 818, St#4, Dhok Chaudryan Rawalpindi.	0332-5246701	<a href="mailto:amnafarook001@gmail.com">amnafarook001@gmail.com</a>

10	Mr. Ashfaq Ali Shah	Additional Secretary	Population Welfare Department, Govt. of Sindh	39-Z/1, Block-6, PECHS, Karachi	0345-2552751	<a href="mailto:ashfaqpwds@yahoo.com">ashfaqpwds@yahoo.com</a>
11	Mr. Yasir Shaikh	Demographer	Population Welfare Department, Govt. of Sindh	39-Z/1, Block-6, PECHS, Karachi	0300-9209952	<a href="mailto:yasirshaikhpwds@yahoo.com">yasirshaikhpwds@yahoo.com</a>
12	Mr. Shah Nawaz Jiskani	Additional Director	Bureau of Statistics, Govt. of Sindh	Bureau of Statistics Complex, Plot G-13, Block-8, Kekshan Clifton, Karachi	021-99251252 0300-3402477	<a href="mailto:snjiskani@gmail.com">snjiskani@gmail.com</a>
13	Mr. Muneer Hussain Qureshi	Programmer	Bureau of Statistics, Govt. of Sindh	Bureau of Statistics Complex, Plot G-13, Block-8, Kekshan Clifton, Ch. Khaliq-uz-Zaman Road, Karachi	0300-2201563	<a href="mailto:muneerqureshi@gmail.com">muneerqureshi@gmail.com</a>
14	Mr. Amjad Ahsan	District Demographer	District Population Welfare Office, Rawalpindi, Population Welfare Department, Govt. of Punjab	H# 859/6-Q, Street # 10, Dheri Hassan Abad Rawalpindi	0300-5589102 051-9258791	<a href="mailto:amjad.demographer@gmail.com">amjad.demographer@gmail.com</a>
15	Mr. Issac Shahzad	Statistical Officer	Punjab Bureau of Statistics, Govt. of Punjab	Bureau of Statistics Punjab 65-Trade Centre Block, M.A Johar Town, Lahore, Ayub chowk, Lahore.	0301-4422607 042-99232904	<a href="mailto:isaacshahzad@live.com">isaacshahzad@live.com</a>
16	Mr. Tauqir Shahzad	District Demographer	District Population Welfare Office Jhelum, Population Welfare Department, Govt. of Punjab	District Population Welfare Office Near DCO House, Bilal Town, Jhelum	0544-734515	<a href="mailto:malik1199@yahoo.com">malik1199@yahoo.com</a> <a href="mailto:Malik1199@gmail.com">Malik1199@gmail.com</a>
17	Mr. Hussain Ahmad	Deputy Demographer	Population Welfare Department, Govt. of Khyber Pakhtunkhwa	District Population Welfare Office, Irum Colony, Mardan	0937-9230035 0346-9302696	<a href="mailto:h_pwds@yahoo.com">h_pwds@yahoo.com</a>

18	Mr. Abdullah	Statistical Assistant	Bureau of Statistics, Govt. of Khyber Pakhtunkhwa	Benevolent Fund Building, Peshawar Cantt.	0333-9127348	<a href="mailto:abdullahj7@gmail.com">abdullahj7@gmail.com</a>
19	Mr. Multan Khan	Stenographer	Bureau of Statistics, Govt. of Khyber Pakhtunkhwa	Benevolent Fund Building, Peshawar Cantt.	0344-9833158	<a href="mailto:multankhanbos71@gmail.com">multankhanbos71@gmail.com</a>
20	Ms. Azra Aziz	Director (R&S)	National Institute Population Studies (NIPS), Islamabad	12-A, Capital Centre, G-8 Markaz, Islamabad	0336-5033304 9262756	<a href="mailto:azra_aziz@yahoo.com">azra_aziz@yahoo.com</a>
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22	Zafar Zahir	Associate Fellow	NIPS	12-A, Capital Centre, G-8 Markaz, Islamabad	0336-5033312	<a href="mailto:rhizafar@gmail.com">rhizafar@gmail.com</a>
23	Ms. Rabia Zafar	Associate Fellow	NIPS	12-A, Capital Centre, G-8 Markaz, Islamabad	0336-5033314	
24	Zia-ul-Islam	System Analyst	NIPS	12-A, Capital Centre, G-8 Markaz, Islamabad		
25	Fasizl Zeb	Assistant Programmer	NIPS	12-A, Capital Centre, G-8 Markaz, Islamabad		
26	Ms. Shifa Fatimah	Research Associate	NIPS	12-A, Capital Centre, G-8 Markaz, Islamabad	0323-9111620	<a href="mailto:shifa.fatima@gmail.com">shifa.fatima@gmail.com</a>
27	Ms. Sadaf Zafar	Research Associate	NIPS	12-A, Capital Centre, G-8 Markaz, Islamabad	0301-5048471	<a href="mailto:sadafmalik18@yahoo.com">sadafmalik18@yahoo.com</a>
28	Ms. Maryam Ahmad	Research Associate	NIPS	12-A, Capital Centre, G-8 Markaz, Islamabad		
29	Ms. Sehrish Khan	Research Associate	NIPS	12-A, Capital Centre, G-8 Markaz, Islamabad	0334-5754088	<a href="mailto:sahr_khan86@yahoo.com">sahr_khan86@yahoo.com</a>
30	Ms. Maheen Khan	Internee	NIPS	12-A, Capital Centre, G-8 Markaz, Islamabad		