UNITED NATIONS WORKSHOP ON POPULATION PROJECTIONS FOR AFRICAN COUNTRIES

Pretoria, South Africa

29 October – 2 November, 2012

Monday, October 29, 2012		
09:00 – 10:00	**Opening session**	Stats. SA, UNSD
	Session 1: Introduction	T. Buettner
10:00 – 11:00	1. Introduction 2. The need for and the utility of population projections	
11:00 – 11:30	***Coffee break***	
11:30 – 12:30	3. Population projections for Africa: Background and challenges 4. Getting ready: Software, data, internet	
12:30 – 1:30	***Lunch break***	
	Session 2: Background and First Steps	Ben Jarabi
1:30 – 3:00	1. The basic balance equation of Demography (i) Closed populations and components of change (ii) Open populations and (international) migration 2. Projections of total population by mathematical formulae (i) Linear versus exponential growth (ii) Intrinsic growth rate based on two population counts (iii) Projection of a total population using an intrinsic growth rate 3. Hands-on Exercise: A simple projection of total population	
3:00 – 3:300	***Coffee break***	
3:30 – 5:00	4. Population projections: The Cohort-Component Method (i) The balance equation (ii) The mathematics of the cohort-component method (iii) Hands-on Exercise: A simple cohort-component projection	
	Tuesday, October 30, 2012	
	Session 3: Establishing the Base Population	Ben Jarabi
9:00 – 10:30	1. Overview of base population 2. Main factors responsible for distorted or incomplete data (i) Coverage errors (ii) Content errors (errors in age reporting by sex) (iii) Corrective actions: Methods to detect, measure and correct distorted base populations	
10:30 – 11:00	***Coffee break***	
11:00 – 12:30	3. Hands-on exercises (i) Correcting a distorted sex ratio in a population	

	(ii) Correcting a distorted age distribution in a population (iii) Move a population to a specific date	
12:30 – 1:30	***Lunch break***	
	Session 4: Projecting the levels of mortality, fertility and migration	T. Buettner
1:30 – 3:00	1. Historical trends in life expectancy, fertility and (international) net-migration 2. Approaches to projecting life expectancy at birth (i) UN Model of life expectancy change (5 double logistic models, (ii) U.S. Census Bureau approach PASEX: E0LGST, E0PRJ (iii) Hands-on exercise: Projecting life expectancy over time.	
3:00 – 3:30	***Coffee break***	
3:30 – 5:00	3. Approaches to projecting total fertility (i) UN Model of total fertility change (3 double logistic models), (ii) U.S. Census Bureau approach PASEX: TFRLGST, (iii) Hands-on exercise: Projecting total fertility over time. 4. Approaches to projecting the level of net- migration (i) Challenges and approaches to the projection of international migration, (ii) Hands-on exercise: Simple projection of net-migration.	
Wednesday, October 31, 2012		
	Session 5: Projecting the age patterns of mortality, fertility and migration	T. Buettner
9:00 – 10:30	1. Observing or borrowing: Sources of information about age patterns of mortality and fertility 2. Projecting the age pattern of mortality (i) Tools for the modeling of age patterns of mortality: • Model Life Tables (MORTPAK: Coale-Demeny, UN) • INDEPTH life tables • Relational model life table systems • Lee-Carter model (ii) Hands-on exercise: Projecting mortality age patterns:	
10:30 – 11:00	***Coffee break***	
11:00 – 12:30	3. Projecting the age pattern of fertility (i) Tools for the modeling of age patterns of fertility: • Coale's Model Fertility Schedule, • Brass' polynomials • UN Beta distribution and model schedules (ii) Hands-on exercise: Projecting fertility age patterns • UN approach: Model patterns of fertility • US Census Bureau approach: [RUPEX] 4. Projecting age patterns of migration. (i) Assumptions for projecting the age patterns of migration. (ii) Hands-on Exercise: Generating age patterns of migration	
12:30 – 1:30	***Lunch break***	
	Session 6: Introduction to Population Projections	Ben Jarabi
1:30 – 3:00	1. Recap: the main population projection methods 2. Methods, input requirements, and results for the main population types (i) National populations (ii) Sub-national, sectoral populations (iii) Small populations	
3:00 – 3:30	***Coffee break***	

3:30 – 5:00	3. Lab time: (i) Preparation of projections for own countries with national data (ii) Questions and answers	
Thursday, November 1, 2012		
	Session 7: Population projections for national populations	T. Buettner
9:00 – 10:30	1. Population projections for national populations (Presentation). (i) Using RUPEX/Spectrum (to be determined depending on operating system): • Data input, • Projection parameter settings • Executing the projection • Obtaining, saving the results (ii) Hands-on exercise: Preparing a cohort-component projection (cont.) (iii) Trouble shooting	
10:30 – 11:00	***Coffee break***	
11:00 – 12:30	2. Evaluation of projections results 3. Accounting for uncertainty -- Choosing alternative projections scenarios. 4. Hands-on exercise: Preparing and comparing different projection variants 5. Lab time	
12:30 – 1:30	***Lunch break***	
	Session 8: Population projections for sub-national, sectoral or small populations	Ben Jarabi
1:30 – 3:00	1. Examples of sub-national and sectoral population projections 2. Components of change for sub-national or sectoral populations: data sources and requirements 3. Methods suited for sub-national projections: bottom-up or top-down, cohort component versus ratio methods 4. Methods suited for sectoral projections: Participation-Ratio Method and Cohort-Progression Method	
3:00 – 3:30	***Coffee break***	
3:30 – 5:00	Lab time: Population projections for sub-national, sectoral or small populations	
Friday, November 2, 2012		
	Session 9: Presenting results	T. Buettner
9:00 – 10:30	1. How to present the results of population projections 2. Presentation of country projections by participants	
10:30 – 11:00	***Coffee break***	
11;00 – 12:30	3. Presentation of country projections by participants (Cont'd) 4. Questions and answers	
12:30 – 1:30	***Lunch break***	
	Session 10: Final Matters	UNSD
1:30 – 3:00	1. Comment and recommendations by participants 2. Completion of Workshop Evaluation by the participants 3. Closing	