

## 모로코의 통계·경제교육원(INSEA) 세미나 참가 결과 보고

\* Institute National de Statistique et d'Economie Appliquee (INSEA)

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### □ 출장 개요

- 세미나 명칭: 통계: 과거의 업적, 현재의 한계, 미래의 도전
- 주관기관: Haut Commissaire au Plan, [www.hcp.mahcp.ma](http://www.hcp.mahcp.ma)
- 출장자: 교육운영과 박경애, 통계정책과 은순현
- 출장기간 : 2011. 12. 13(화) ~ 12. 20(화)
- 세미나 기간 : 2011. 12. 15(목) ~ 12. 16(금)
- 세미나 장소 : 모로코 라바트의 INSEA Conference Hall

### □ 출장 목적

- 모로코 HCP로부터 HCP 주관 ‘모로코 통계경제교육원(INSEA) 50주년 기념 세미나’에 우리 청의 통계교육 및 인적역량강화, 국가통계 작성체계 등 발표 요청 받음
- 이에 통계청의 교육프로그램과 국가통계 작성체계를 INSEA 50주년 기념 세미나’에서 발표함으로써 한국 통계청의 통계 역량을 세미나 참가자에게 홍보하고, 양국 통계청의 유대관계 유지를 통한 국제 통계협력을 강화하고자 함

### □ 출장 일정

- 12.13: 인천공항(AF267) → 프랑스CDG공항(환승 5시간대기)  
→모로코 라바트 도착(AF1358)
- 12.14: 세미나 준비

- 12.15~16: 세미나 참가
- 12.17: 세미나 정리 및 문화유산 탐방
- 12.18: 라바트공항(AF2459, 이륙 30분 지연) →  
프랑스 CDG공항 도착
- 12.19~20: 프랑스 CDG공항 (AF264, 이륙 1시간30분 지연)  
→인천공항 도착

## □ INSEA 50주년 세미나 참가자

### ○ 정부, 국제기구, 언론, 학계 등 약 300명

UN 아프리카 지부(World Bank, UNDP, UNFPA 등) 인사  
모로코 정부 인사, 학계, 언론인, INSEA 동문, 학생 등

### ○ HCP (INSEA) 국외 초청 인사 (9명)

Mr. Alain Charraud (프랑스 ENSAI)

Mr. Jacques Anas (프랑스 COE-REXECODE)

Mr. Tim Clode (프랑스 OECD)

Mr. Benoit Riandey (프랑스 INED)

Mr. Jean Pierre Puig (프랑스 INSEE)

Mr. Jean-Jacques Droesbeke (벨기에 자유대학 교수)

Mr. Jean-Louis Tamby (캐나다 통계청)

Ms. Kyung Ae Park (한국 통계청 통계교육원)

Mr. Mr. Sun-Hyun Eun (한국 통계청)

### ○ Contact Point

Abderrahmane Haouch, Chef de Cabinet du Haut Commissaire  
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## □ INSEA 50주년 세미나 주요 내용

### ○ 축하 및 환영사 (15일 오전)

- 정부, 국제기구, 졸업생, 학생 대표 등 약10명의 연설 등  
. 50주년 우표, 국내외 역할, 실업, 불평등, 자료접근 등

### ○ 세션 1: 통계생산의 경제사회 측면 (15일 오전 및 오후)

- 웰빙과 사회진보 측정 (OECD의 Mr. Clode)  
. GDP한계 극복을 위한 현재 및 미래의 웰빙 측정 노력
- 프랑스 통계 시스템 관리의 문제점 (INSEE의 Mr. Puig)  
. 통계의 질과 신뢰성, 조정과 통계의 독립성
- 현 경제위기의 경기예측 지표 (프랑스의 Mr. Anas)  
. 실물, 금융, 여론조사간 차이, Markovic, Probit 접근 소개
- 모로코의 경기 예측 지표 (모로코의 Mr. Akkaoui)  
. 3개월, 6개월 단기예측과, 국민계정 장기예측법
- 모로코 정책을 위한 경제시뮬레이션 (모로코의 Mr. Allalat)  
. 2012년 예측, 석유가격과 정책, 부문별 micro-simulation
- 모로코의 객관적인 지표와 인식 (모로코의 Mr. Taamouti)  
. 실업, 인플레이션, 빈곤의 객관적 지표와 체감 지표 차이
- 인구의 웰빙 측정 도구 (모로코의 Mr. Soudi)  
. 실업, 빈곤, 건강, 주택, 사회적웰빙, 사회통합, 지속가능성
- 여론조사의 규율와 통제 (INED의 Mr. Riandey)  
. 정책시뮬레이션, 통제/시민을 위한 여론조사, 투명성

## ○ 세션 2: 통계생산 시스템과 국제 규범(16일 오전)

- 창조적 통계의 역사 (벨기에의 Mr. Droesbeke)  
. 가설, 추정 등 인물중심 통계의 발전사
- 모로코 HCP의 주요 성과 (모로코의 Mr. Taamouti)
- 캐나다 가구조사의 경험 (캐나다통계청의 Mr. Tambay)  
. 경제활동조사의 표본, 무응답, 비밀보호 등 질 문제
- **한국 국가통계 시스템 (한국통계청의 은순현)**

## ○ 세션 3: 사회경제변화에 대응한 통계교육 (16일 오전)

- **한국 통계교육원의 통계역량강화를 위한 교육프로그램 (한국 통계청 통계교육원의 박경애)**
- 프랑스의 통계교육 (ENSAI의 Mr. Charraud)  
. 프랑스와 모로코의 공동학위 (학사, 석사, 박사, 교환 등)
- INSEA의 50년: 향후 방향(INSEA의 Mr. Boubkraoui)  
. 연대별 발전사, 연구필요성, 종교와 과학의 분리 주장

## □ 한국 통계청의 발표 내용

### 1. 한국의 국가통계 시스템(은순현)

- 통계청 소개: 미션, 비전, 역사, 자원, 조직
- 국가통계시스템: 분산형 시스템,
  - 통계청 역할(통계생산자와 조정자)
  - 통계정보 제공

- 선진통계를 위한 전략
  - 전략 목표
  - 현 시스템의 관심
  - 핵심전략 (대응성, 효율성, 정확성, 편리성)

## 2. 한국 통계교육원의 통계교육 프로그램 (박경애)

- 통계역량강화를 위한 통계교육원의 훈련 프로그램
  - 통계교육원의 미션과 2011년 주요 성과
  - 한국 통계청의 인적자원 관리 현황 및 계획
  - 교육수요 파악, 교육훈련 실시 및 결과 평가
  - 전문가 양성과정 등 교육의 질적 강화 노력
  - 통계교육원의 e-Learning 과정 및 운영방법
  
- 국제 통계교육 프로그램
  - ODA 사업 정책과 통계교육 관련 주요 프로젝트
  - SIAP 프로그램 현황
  - KOICA지원 교육 프로그램의 국가별, 지역별, 과제별 현황
  
- 2012년 계획
  - 전문성 교육 강화 및 대학원 설립 목표 지향 노력
  - U-Learning 서비스 및 국제교육 강화
  
- 수집 자료
  - Cinquantenaire de L'Institut National de Statistique et d'Economic Applique (INSEA 50년, CD)

## □ 관찰 및 시사점

- 모로코 INSEA 학생의 한국에 대한 관심 증대로 한국과 모로코의 통계교육 관련 협력이 한국의 아프리카 진출을 위한 교두보 역할을 촉진시킬 것으로 기대
  - 아랍어와 프랑스어가 공식 언어이므로 의사소통 문제 상존
  - INSEA는 프랑스의 지원으로 경제예측방법과 경제통계 우수
  - 모로코가 OECD 세계포럼 아프리카 지역회의 개최 예정지(2012. 4)로서 삶의 질과 사회진보에 대한 관심 지대
  - 한국 통계교육원의 e-Learning과 U-Learning 대하여 모로코뿐만 아니라 유럽 참가자들도 지대한 관심 표명
  
- 모로코(INSEA) 학생들이 한국의 ODA사업 및 KOICA지원 교육 프로그램에 관심이 많고, 한국 유학.연수.방문 희망 의사 강함
  - 한국 통계교육원의 국제적인 브랜드 통계교육과정 개설 필요
  - 한국 통계교육원에서 매년 3~4차례 실시하고 있는 외국인과정 개설 및 운영과 관련하여, 영어실력, 영문교재 및 운영 노하우의 부족문제가 도출되고 있는 바, 국제적 통계교육센터로 도약하기 위해서 국제적 협력관계 증진 및 통계 역량강화 노력 필요
  
- 모로코 INSEA는 학위과정 중심이며, 프랑스 ENSAI, INSEE 등과의 협력관계로 국제적인 교육기관으로 자리매김
  - 한국의 통계교육은 전문가 과정을 제외하고, 거의 모든 과정이 일주일 이내의 단기 과정으로 편성되어 있어, 피교육생들에게 체계적인 통계전문성을 제고함에 한계가 있는 바, 과정 수는 줄이고, 교육기간은 늘리는 방안 검토 필요.

# Training Programs for Statistical Competency Development in STI, Korea



Dec. 15~16. 2011, Morocco



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- Obligatory Courses and Performance Management
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- E-learning Courses

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# 1.1. History and Training Activities of STI

- STI is an affiliate of Statistics Korea
- 1991: Established Statistical Training Center for the purpose of training professionals
- 2009: Moved to new building, Statistics Center
- 2011: 20<sup>th</sup> Anniversary of STI

	2005	2006	2007	2008	2009	2010	2011*
# of courses	58	66	72	89	108	143	150
# of times offered	160	171	175	256	270	401	353
# of trainees	7,343	8,810	9,981	11,996	14,741	16,278	17,202

\*1) As of 10.31.

2) 63% of all trainees are local offices, 8% from KOSTAT headquarter, 18% from other government agencies, and 11% general public including private agency.

## 1.2. Vision, Mission and Strategies of STI

**Lead Korea to become a statistical powerhouse**

**Cultivate statistical professionals  
Promote recognition of statistics**

Cultivate  
Statistical  
professionals

Strengthen  
training  
for users

International  
-ization  
of statistical  
training

Expanding  
training  
infrastructure

**Regular and Ad hoc Programs for KOSTAT staff, Staff of  
other agencies, General Public, and Foreigners**

## 1.3. Major Performance in 2011

### Expansion of statistical professional training

- ◆ Evening / weekend courses
- ◆ Courses for interviewers of Regional Statistics Officers
- ◆ Nine long-term courses for specialists
- ◆ Seminars for professionals (1~2 days)
- ◆ Action learning oriented discussion and case studies

### Strengthen statistical training for statistical producers

- ◆ Custom-tailored courses for statistical agencies
- ◆ Provision of textbooks, lecturers and consultation on training programs to statistics compiling agencies

## 1.3. Major Performance in 2011

### Strengthen statistical training for statistical users

- ◆ **Expansion of statistical training for general public**
  - **Social survey analysts, STATA**
  - **Training for elementary school teachers and press reporters**
- ◆ **Promote statistical awareness**
  - **Training for school students**
  - **Statistics research schools(elementary, middle)**
  - **Administration of statistics application contests for children and middle school students**
  - **Training for interviewers of private sector**

## 1.3. Major Performance in 2011

### Internationalization of statistical training

- ◆ Management of courses and projects with Korea International Cooperation Agency(KOICA)
- ◆ Custom-tailored training course
- ◆ Participation at international conferences

### Expansion of statistical training infrastructure

- ◆ Advancement of training management System
  - IMSE (Integrated Management of Statistical Education)

# 1.4. Training Management System

IMSE(Integrated Management of Statistical Education)

<http://sti.kostat.go.kr/eng>



## **2. IDENTIFICATION OF TRAINING NEEDS**

### **2.1. Recruitment and Development of KOSTAT Staff**

- **Recruitment: Two-tiered system**
  - **Regular: Government Exam.**
  - **Special : Special areas, Ph.D.**
- **Changes from rotation to CDP for all staff and nurturing specialists**
  - **Plans CDP**
  - **Special posts and areas are designated to improve professionalism of individuals and organizations**

## **2.2. Obligatory Courses and Performance Management**

- **Obligatory course system for all KOSTAT staff**
  - **Newly hired staff is required to finish the designed courses prior to their replacement within the organization**
  - **Transfers from local offices to the headquarters**
  - **Existing members have to take obligatory courses as well as elective courses for promotion to higher level**
- **Performance measurement encourages staff to take STI training courses**
  - **100 hours of training per year**



## **2.3. Surveys and Professional Networks**

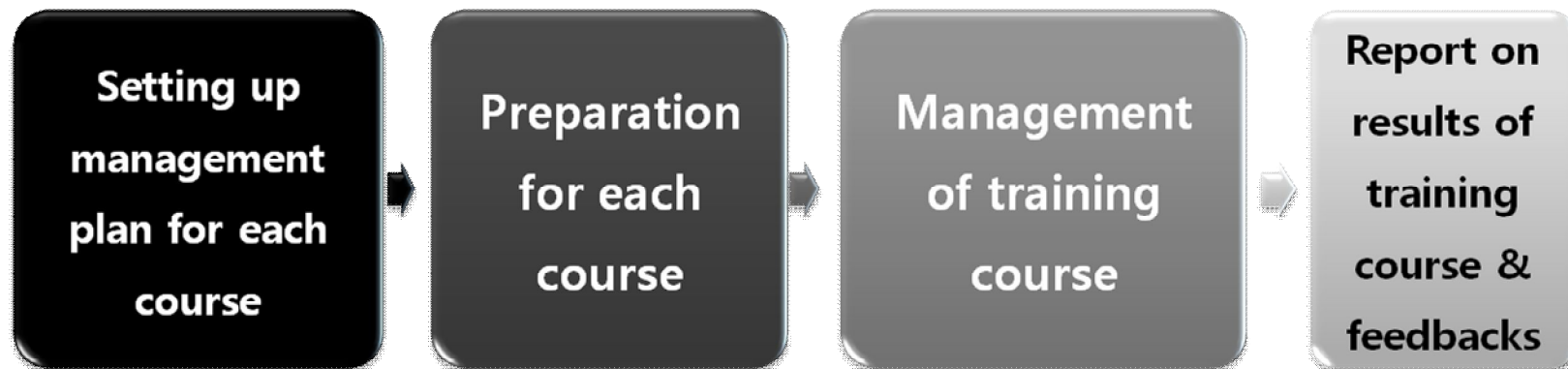
- **All kinds of surveys from KOSTAT and Other agencies**
  - **For each course**
  - **Curriculum Design**
  - **Training Course Completion Survey**
  - **Creative ideas on websites**
- **Professional networks within KOSTAT**
  - **OJT, Self-help Courses, Seminars, Study groups, etc**
  - **Monthly evaluation meetings within STI**
- **Professional formal and informal networks with outsiders**
  - **Professors, researchers, officials etc**
  - **Various agencies, academic community, schools**
  - **Good way to find good instructors**

## 2.4. Work Flow Chart of Training

### ❖ Training Planning

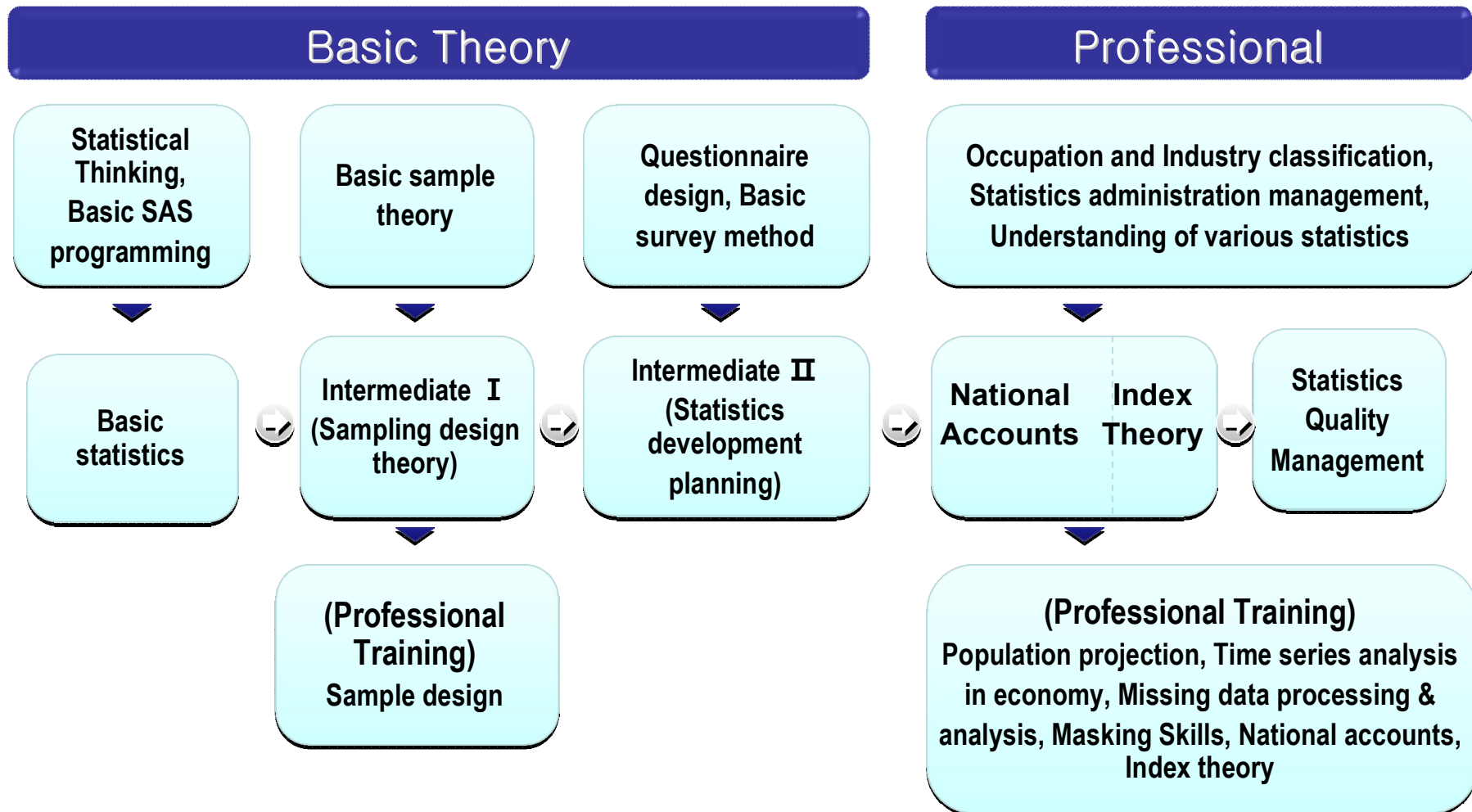


### ❖ Training management



## 2.5. Learning Pathway

### ❖ Curriculum by different levels

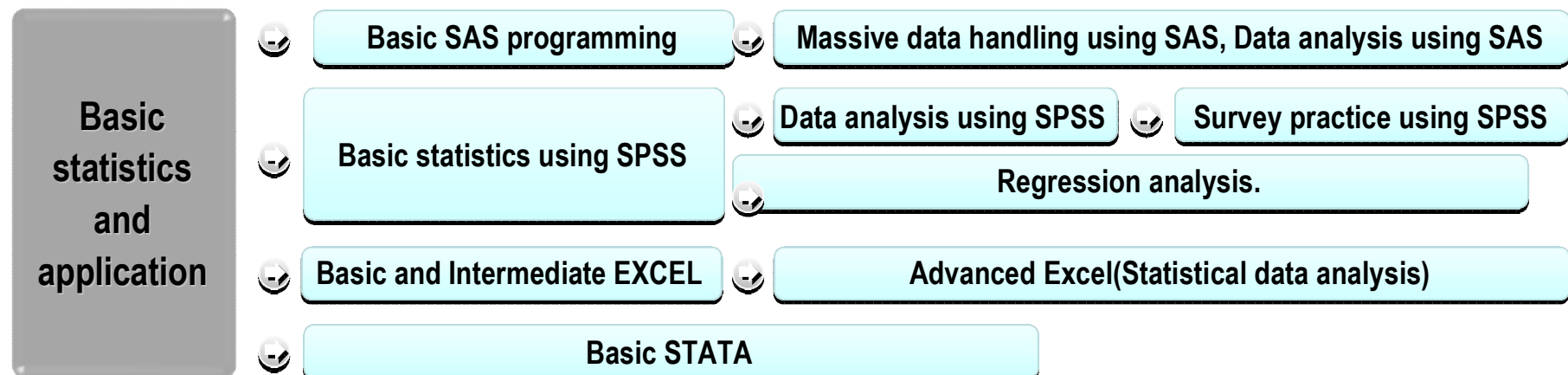


## 2.6. Learning Pathway

### ❖ Curriculum by statistical process



### ❖ Guide for statistical package



# 3. STATISTICAL TRAINING PROGRAMS

## 3.1. All Courses in 2011

Classification		Courses	
General (3)		3	New Comers; Managers
Special (7)		7	For Korean Students; For foreigners(4)
Professional (105)	Common	6	Leadership; Speech & Comm. Skills
	Statistics	45	Basic, mid-Level, advanced
	Packages	13	STATA; SAS; SPSS
	IT	7	DB; EXCEL; Power Point; Oracle
	E-learning	32	Survey Guidelines; Sampling; SAS
	Language	2	English, Chinese

## 3.2. Courses for KOSTAT Specialists

- Long-term course: 16 weeks, 3 hours per week
- Small number of selected trainees: 8-10
- Strict diagnosis and evaluation: achievement(70%), application capability (30%)
- Incentives for job assignment

Classification		Courses	
Professional (9)	Statistics (Methodology)	5	Sample Design I & II, Missing Data Analysis, Masking Skills, Survey Planning (Questionnaire Design)
	Society	1	Population projections
	Economy	3	Time Series Analysis in Economy, SNA, Index Theory

## 3.3. E-learning Programs

- **History**

- **2005: 2 courses, 378 trainees**
- **2006: 4 courses, 2806 trainees, LMS**
- **2007: 15 courses, 4070 trainees**
- **2010: 32 courses, 9743 trainees**
- **2011: 32 courses, about 14,000 trainees**

- **% of e-learning trainees among all trainees:**

**50% (2008) → 66% (2009) → 60% (2010)**

- **% of KOSTAT local officials among all e-learning trainees: 50% (2008) → 54% (2009) → 75% (2011)**

- **e-Learning Center (<http://elearn.nso.go.kr>):**

- **Open class, Open lecture, Statistical course, e-book**

## 3.4. E-learning Courses, 2011

- 17 survey guidelines are open for staff of KOSTAT local offices
  
- 13 statistics courses are open to all
  - . 7 Basic: Statistical Thinking, Basic Survey Methodology, Occupational Classification, Industrial Classification, Basic Sampling, Basic Statistical Knowledge, Preparation for Social Survey Analyst
  
  - . 6 Advanced: SAS programming, Data Analysis using SPSS, Data Analysis using EXCEL, Regression Analysis, Time Series Data Analysis, Financial Statements.
  
- 2 knowledge courses are open to all:  
Statistics Act, Officer Integrity



## **3.5. E-learning Survey Guidelines for KOSTAT Local Officials, 2011**

<b>Courses</b>	<b>Units</b>
<b>Consumer Price Survey</b>	<b>9</b>
<b>Manufacturing Production Capacity and Operation Ratio Survey</b>	<b>6</b>
<b>Service Industry Trend Survey</b>	<b>10</b>
<b>Fishery Household Economy Survey</b>	<b>11</b>
<b>Economically Active Population Survey</b>	<b>6</b>
<b>Current Mining and Manufacturing Survey [Mining, Industry]</b>	<b>10</b>
<b>Household Trend Survey</b>	<b>9</b>
<b>Farm Household Economy Survey</b>	<b>21</b>
<b>Vital Statistics (Registration) Survey</b>	<b>6</b>
<b>Crop Production Survey</b>	<b>8</b>
<b>Agricultural Land Survey</b>	<b>7</b>
<b>Fishery Production Trend Survey</b>	<b>7</b>
<b>Livestock Survey</b>	<b>7</b>
<b>Farm Household Sales and Purchase Price Survey</b>	<b>6</b>
<b>Rice Price Survey</b>	<b>5</b>
<b>Livestock Production Cost Survey</b>	<b>8</b>
<b>Current Fish Culture Survey</b>	<b>6</b>

## 3.6. Procedure for E-Learning

### • Course Announcement

- Distribute letters & course information on the 10<sup>th</sup> of prior month

### • Course Registration (training expenses free of charge)

- Register course during specified period using website
- Maximum 1 course per month

### • Approval Training

- After approval, STI sends email and SMS

### • Training

- E-Learning website>My e-learning>Study
- Submission of the task or test

### • Completion of the course

- Pass or Fail is determined applying progress/ attendance(60%) and evaluation (40%).

# 3.7. E-learning Management System

- registration, approval, studying, evaluation and completion

# 3.8. Making Contents Using FLASH

The screenshot shows a web browser window titled "통계교육원 - 황현식". The main content area is titled "통계적 사고방식" (Statistical Thinking) and features a navigation menu on the left. The menu includes sections for "01. 통계와 통계학 (Introduction)", "들어가기" (Introduction), "학습하기" (Learning), "정리하기" (Summary), "평가하기" (Evaluation), and "생각하기" (Thinking). The "학습하기" section is expanded, showing two topics: "1. 통계학의 정의, 왜 필요한가?" and "2. 통계학의 적용과 분야".

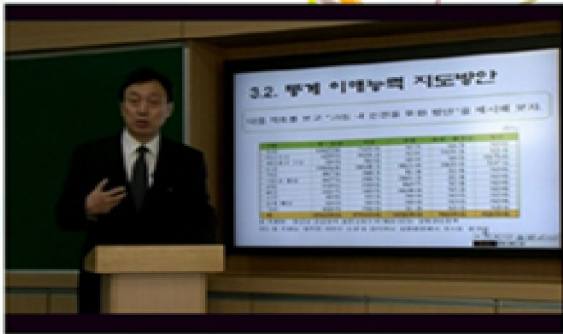
The main content area displays a cartoon illustration of a man and a woman standing in a coffee shop. A small, white, tooth-like character wearing a red shirt with a blue  $\Sigma$  symbol is standing next to them. The coffee shop has a counter with a "Coffee" sign and a menu board. The floor is made of yellow bricks.

At the bottom of the interface, there is a progress bar and a control panel. The progress bar shows the current position at 01:24 / 01:39. The control panel includes buttons for "지막보기" (End of Page), "01 / 15", and a close button.

# 3.9. Making Contents using Multimedia Tool: E-Learning (Open-Lecture)

통계교육원 - Windows Internet Explorer  
 http://elearn.nso.go.kr/stilms/lcms\_e/item/control.jsp?a=content&item\_no=4250

통계교육원 이러닝센터 중학생 통계교육 지도방안



## 3.2. 통계 이해능력 지도방안

다음 자료를 보고 "가정 내 안전을 위한 방안"을 제시해 보자.

구분	방·침실	거실	부엌	욕실·화장실	계단	건(%)
수락	146(22.4)	74(12.8)	9(5.5)	6(6.3)	0(0.0)	
미끄러짐	62(9.5)	65(11.2)	3(1.8)	53(55.2)	1(2.4)	
계단에서 구름	0(0.0)	0(0.0)	0(0.0)	0(0.0)	32(78.0)	
둔상	238(36.4)	245(42.3)	41(24.8)	24(25.0)	7(17.1)	
꺼임	48(7.4)	24(4.1)	4(2.4)	2(2.1)	0(0.0)	
이물질 흡입	49(7.5)	49(8.5)	24(14.5)	2(2.1)	0(0.0)	
관통	53(8.1)	52(9.0)	16(9.7)	3(3.1)	0(0.0)	
화상	11(1.7)	34(5.9)	66(40.0)	5(5.2)	0(0.0)	
감전	1(0.2)	1(0.2)	0(0.0)	0(0.0)	0(0.0)	
물에 빠짐	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	
기타	45(6.9)	35(6.0)	2(1.2)	1(1.0)	1(2.4)	
<b>계</b>	<b>653(100.0)</b>	<b>579(100.0)</b>	<b>165(100.0)</b>	<b>96(100.0)</b>	<b>41(100.0)</b>	

※ 자료원 : 응급실 손상환자 표본심층조사('06.8-'07.5), 질병관리본부  
 주) 본 자료는 '취학전 어린이 손상'을 감시하는 표본병원에서 조사된 결과임

LIST

- [26:05] 3.2. 통계 작성능력 지도방안
- [28:22] 3.3. 통계 이해능력 지도방안
- [30:50] 3.2. 통계 이해능력 지도방안**
- [31:57] 3.3. 통계 이해능력 지도방안
- [32:33] 3.3. 통계 이해능력 지도방안
- [32:58] 3.3. 통계 이해능력 지도방안
- [33:33] 3.3. 통계 이해능력 지도방안
- [34:00] 3.3. 통계 이해능력 지도방안
- [36:32] 3.4. 통계 활용능력 지도방안

00:17 / 33 PLAYING ...

00:01:01 / 00:44:39

완료 인터넷 100%

## **3.10. Strategies: Contents**

- **Strengthening contents**
  - **Considering educational technology when developing e-learning contents ( IT development and outsourcing)**
  - **Organizing teams for writing manuscripts**
  - **Strengthening quality management of contents**
- **Servicing various contents through the cooperation with another training institutions**
  - **COTI (Central Officials Training Institute), KNOU (Korea National Open University), Cyber University**

## 3.11. U-Learning Service



## 4.1. Organization of KOSTAT's International Training Activities

- Into 2 Categories: Supported Training Programs and ODA Training Projects

### Supported Training Programs

- SIAP Programs
- KOICA Supported Programs

### ODA Training Projects

- Capacity Building Projects for Compiling MDGs Indicator
- Project on Building Statistical Infrastructure
- Training Programs



## 4.2. ODA Policy and Projects

### • Policy on ODA

- **Determine KOSTAT's relative strengths and develop statistical capacity building projects based on it**
- **Offer outcome-oriented programs according to the needs of recipient countries**

### • Major ODA projects

- **Capacity building projects for compiling MDG indicators**
- **Project on building statistical infrastructure**
- **Training programs**
  - **Statistical survey system using IT**
  - **One-stop statistics DB management system**
  - **E-learning system**

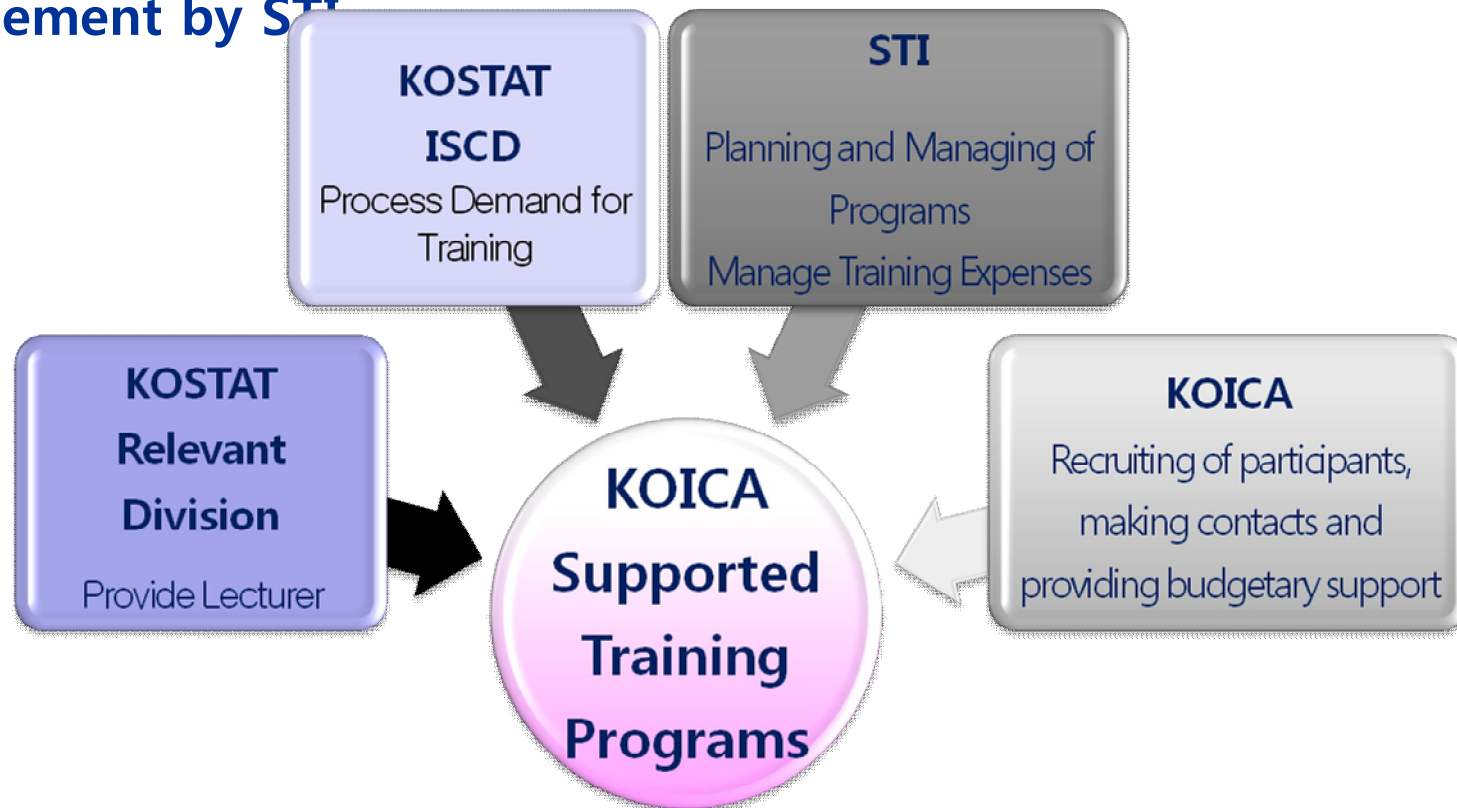
## 4.3. Training Programs are Managed by International Statistical Cooperation Div.(ISCD) and Statistical Training Institute (STI)

	ISCD (Serving as Liaison)	STI
Training Programs through International Cooperation	Planning and Management of Programs	Program administration and provision of facilities • Range of support varies across programs, and some activities overlap
SIAP Training Program	Planning and Management of Programs	Program administration and provision of facilities
KOICA-Supported Training Programs	General Management including demand assessment	Planning and Management of Programs

- **KOICA Programs:** 20 sessions including practical business of statistics, national government DB set up, public sector data management (2005–11, Transferred to STI in 2008)
- **SIAP Programs:** 15 sessions including quality management, disability and health statistics, research methods for official statistics (1999~2011 July, 1–2 times per year)

## 4.4. Role of STI

- **KOICA-Invited Training Programs are Entrusted under Management by STI**

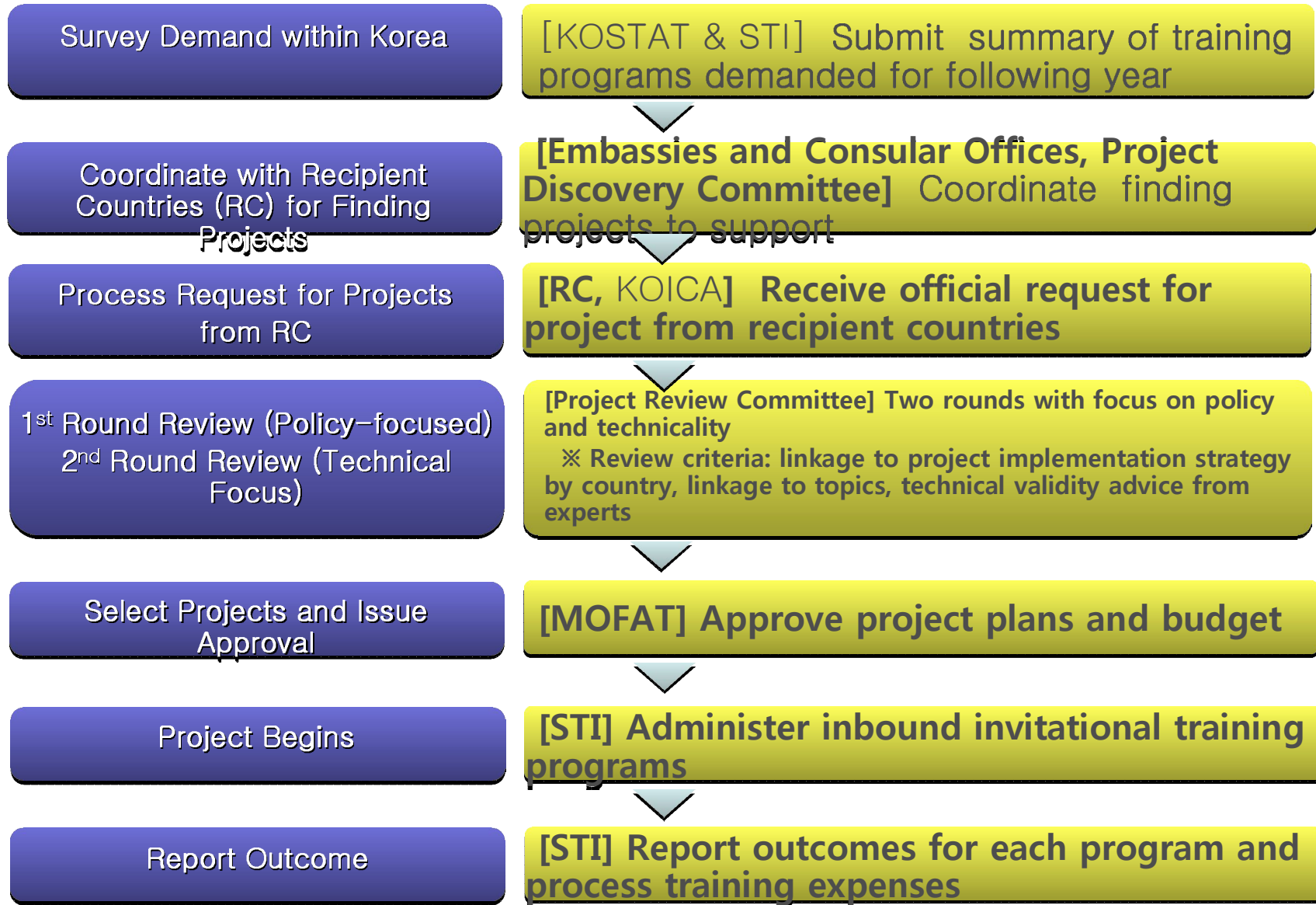


STI: Indicate qualification for trainees

KOICA Local Office: Announce recruitment and process application, and notify agencies

Recipient Country : Administer selection process and apply

## 4.5. Selection Process for KOICA Supported Programs



## 4.6. KOICA Supported Training Programs

### ➤ Number of Programs and Trainees by Year (2005-2011)

	Total	2005	2006	2007	2008	2009	2010	2011
Programs	20	2	2	2	5	2	3	4
Trainees	311	34	27	29	69	24	57	71

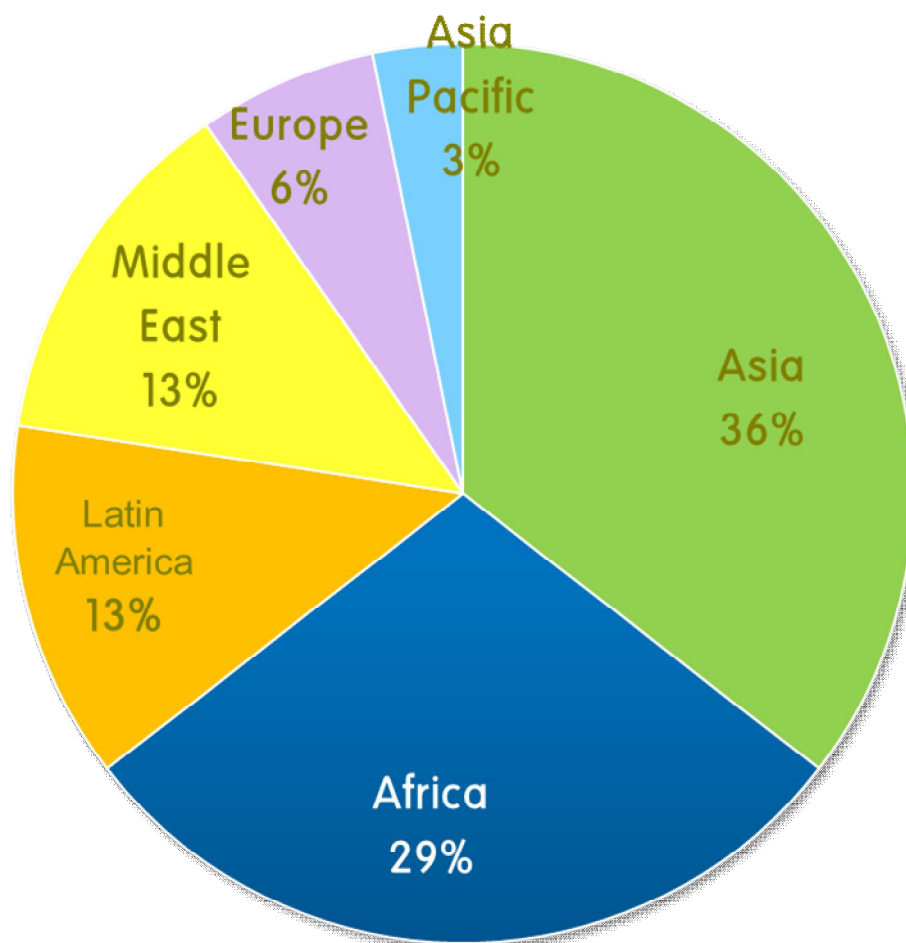
	Total	Developing Countries	Iraq	Afghanistan	Egypt	Mongolia	Bangladesh
Programs	20	6	10	1	1	1	1
Trainees	311	90	169	20	15	10	7

## 4.7. KOICA Supported Training Programs

### ➤ Number of Trainees by Program (2005-2011)

Program Contents	Number of Programs	Number of Trainees
Statistical Methodologies	9	128
Practices of Statistics	4	63
Compiling National Basic Statistics	2	32
Basic Skills for Official Statistics	1	21
Statistical Management	1	20
Constructing National Government DB	1	17
Public Sector Data Management	1	20
Regional Statistical Office Staff Capacity Building	1	10
<b>Total</b>	<b>20</b>	<b>311</b>

## 4.8. KOICA Supported Programs: Distribution of Participating Countries by Region, 2005-11



Region	# of Countries	# of times Participated
<b>Total</b>	<b>31</b>	<b>55</b>
<b>Asia</b>	<b>11</b>	<b>22</b>
SE Asia	6	13
NE Asia	1	1
SW Asia	2	2
Central Asia	2	6
<b>Africa</b>	<b>9</b>	<b>15</b>
Latin America	4	6
Middle East	4	9
Europe	2	2
Asia Pacific	1	1

## 4.9. KOICA Supported Training Programs

### ➤ Number of Programs by Country, 2005-11

Country	# of Programs	Country	# of Programs	Country	# of Programs
<b>Asia</b>		<b>Africa</b>		<b>Latin America</b>	
East Timor	1	Nigeria	1	Guatemala	1
Laos	1	Rwanda	2	Jamaica	1
Maldives	1	Senegal	2	Paraguay	1
Mongolia	1	Zambia	1	Peru	3
Vietnam	1	Chad	1	<b>Middle East</b>	
Moldova	1	Cameroon	1	Sudan	2
Afghanistan	1	Cote D'Ivoire	1	Jordan	1
Uzbekistan	3	Congo	4	Egypt	5
Indonesia	5	Tanzania	2	Palestine	1
Kazakhstan	3	<b>Europe</b>		<b>Asia Pacific</b>	
Cambodia	4	Moldova	1	Papua New Guinea	1
Thailand	1	Ukraine	1	<b>Total</b>	55



## 5. Plans in 2012

- Expand long-term statistical programs for KOSTAT specialist to develop statistical competency

- More courses, Quality control, textbooks

- U(Ubiquitous)- Learning

- Contents development and LMS advancement

- Establish Official Statistics Institute to offer master's degree to support self-motivated study of participants and to develop the pool of specialists

- Train interviewers(enumerators) for private sector and unemployed

- Strengthen international training & cooperation (ODA)

Thank you

STATISTICAL TRAINING INSTITUTE



**Statistics  
Korea**

# **National Statistical System In Korea**

**Dec. 2011**

**Eun, Sunhyun**



# Professor / Lecturer



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**Department: Statistics Korea**  
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**E-mail: [eunsh@korea.kr](mailto:eunsh@korea.kr)**



# Contents

**1**

**About KOSTAT**

**2**

**National Statistical System**

**3**

**Strategies for Advance of Statistics**



# 1. Mission & Vision

## MISSION

Lead advancement of official statistics  
And produce reliable statistics

## VISION

Highly advanced Statistics Korea opens  
the future with the general public

## KOSTAT Strategies

Strengthen  
infrastructure  
of official statistics  
to produce  
high-quality statistics



Enhance customer  
satisfaction  
with user-centered  
statistical services



## 2. History and Resources

### History

- The Bureau of Statistics in 1948 (4 divisions, 1,000 officials)
- BOS was moved to the Economic Planning Board in 1961 to support a series of the 5-year Economic Development Plans
- Become an independent organization in 1990 (3 Bureaus, 14 divisions, 11 local offices, 1,122 persons)
- Upgraded to Vice Ministerial level in 2005
- Found the Statistical Research Institute in 2006 (3 divisions)
- Establish the Survey Management Bureau (4 divisions) in 2007
- Founding Agriculture and Fisheries Production Statistics Division in 2008
- Restructure into 5 Regional Offices and 49 Local Branch Offices in 2009

### Resources

- Manpower: 2,257 persons (6 bureaus)
  - HQ: 549
  - Local offices: 1,637
  - STI: 28
  - SRI: 43
- Budget: \$340M (2010 FY)
- HQ: 6 bureaus, 40 divisions
- Local: 5 regional offices, 49 branch offices
- STI: 2 divisions
- SRI: 3 divisions

### 3. Organization

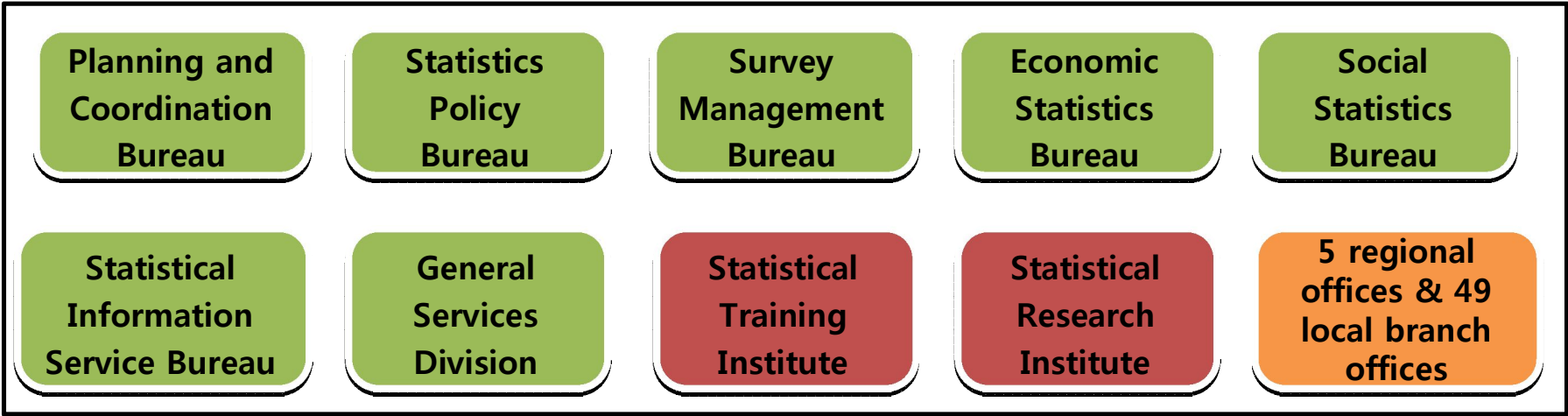
**National Statistical Committee**

**Commissioner**

**Spokesperson**

**Deputy Commissioner**

**Audit and Inspection Office**







**2**

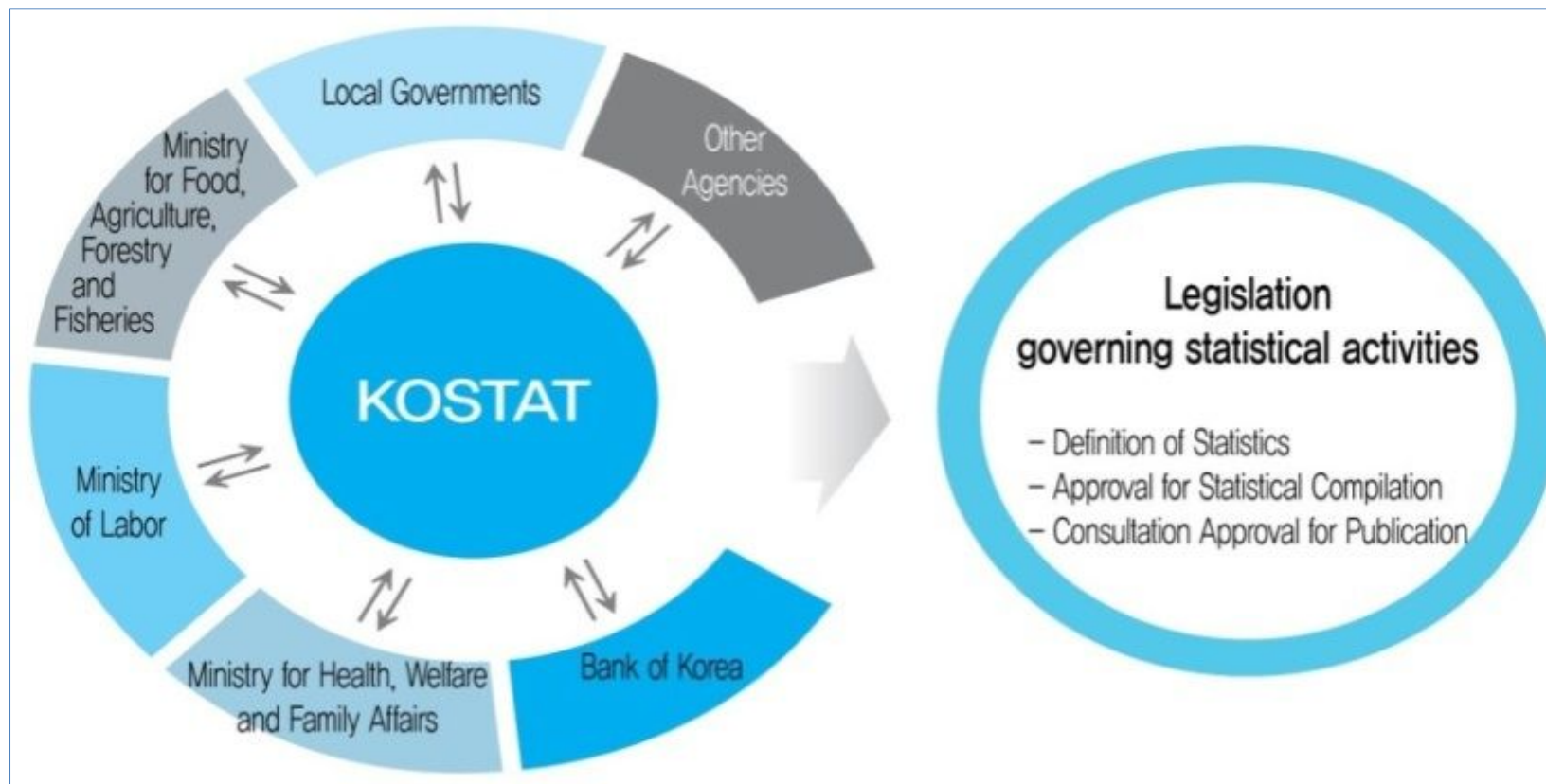
## **National Statistical System**



# National Statistical System

## Decentralized Statistical System

- ◆ 375 organizations produce 850 subjects of official statistics.

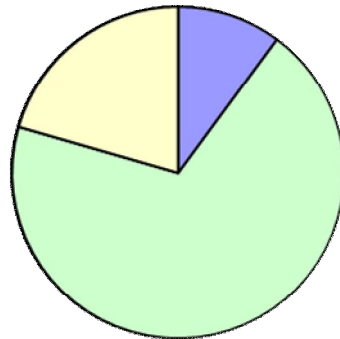


# National Statistical System

## Decentralized Statistical System

### < Producers >

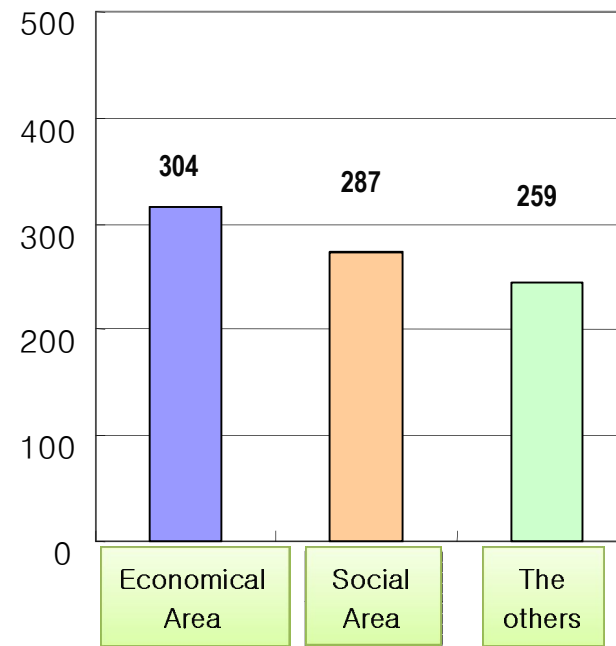
Total : 375 offices



- Central government bodies: 38
- Local governments : 260
- Other designated agencies : 77

### < National Statistics >

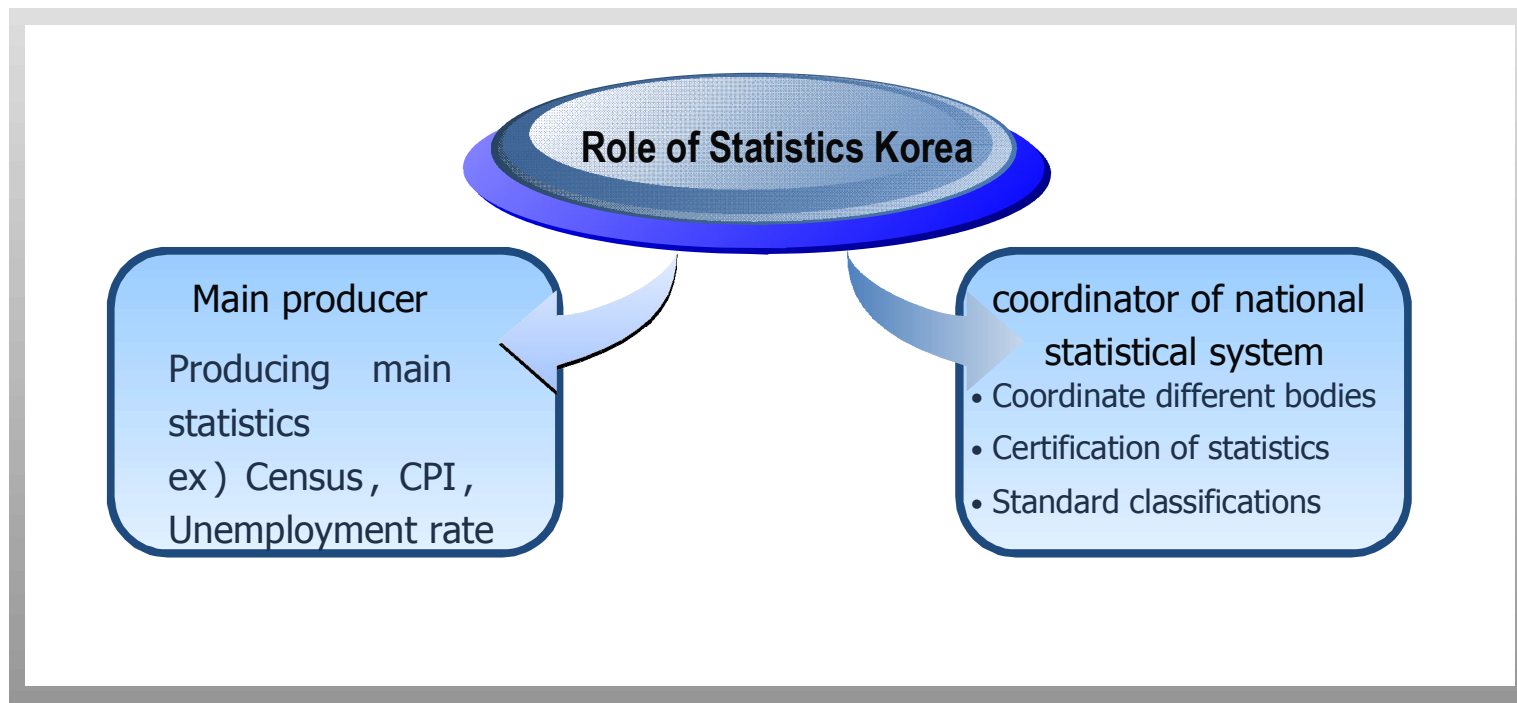
Total : 850 statistics



# National Statistical System

## Role of Statistics Korea

- KOSTAT plays **a key role** in integrating and coordinating statistical activities of all agencies.

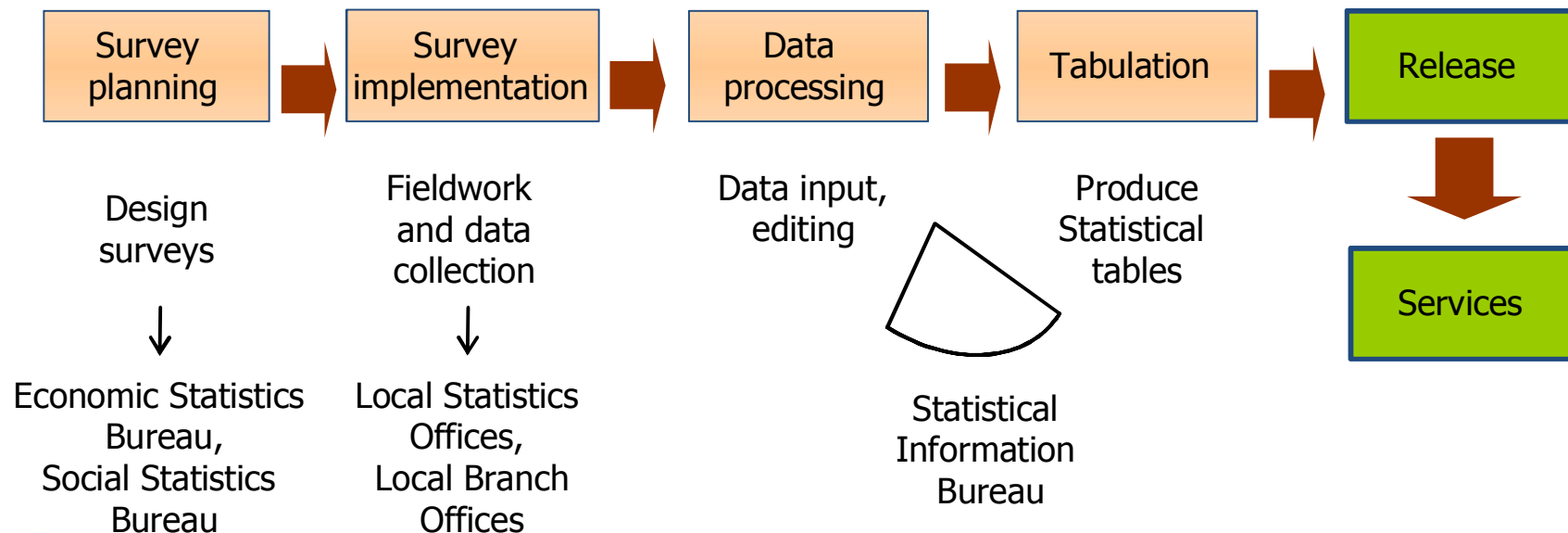


## Role of Statistics Korea

### 1. Main Producer – Compile key Statistics

#### ① Survey Procedure

Statistical works have various steps in the procedures from producing statistics, which are needed by relevant fields, to supply data to users.



### 1. Main Producer – Compile Key Statistics

#### ② Vital Statistics

- Births, Deaths, Marriages, Divorces

#### ③ Employment & Household Survey

- Economically Active Population Survey
- Household Income and Expenditure Survey

#### ④ Mining and Manufacturing

- Monthly Survey of Mining and Manufacturing

### 1. Main Producer – Compile Key Statistics

#### ⑤ **Census**

- Population & Housing Census
- Economic Census
- Census of Agriculture, Forestry and Fisheries

#### ⑥ **Construction and Transportation**

- Construction Orders Received Survey
- Transportation Survey



### **1. Main Producer – Compile key Statistics**

- ⑦ **Wholesale and Retail Trade**
  - Wholesale and Retail Trade Survey
- ⑧ **Service Industry**
  - Monthly survey of Service Industry
- ⑨ **Agriculture, Forestry and Fishery**
  - Farm Household Economy Survey





### **2.Coordinator of National Statistical System**

- ① Verify and approve newly compiled statistics
- ② Establish statistical standards and classifications
- ③ Sampling, preparation of survey, statistical analysis and other technical support
- ④ Support the production of regional statistics
- ⑤ Identify and resolve new statistical need
- ⑥ Strengthen the linkage between statistics and policies



## 4 key Governance Measures of NSS

- 1 **Approval of Official Statistics**
- 2 **Quality Assessment**
- 3 **Standards and Classification**
- 4 **Statistics-based Policy Management**

## Role of Statistics Korea

### 3. Disseminate Statistical Information

- ❖ Provide statistical data for a variety of users in various formats
  - Users : Policy-makers, researchers, universities, companies
  - Formats : publications, KOSIS, CD, Data-Warehouse, microdata
  
- ❖ Build Web-based database system for the general public
  - KOSTAT Main Website [<http://www.kostat.go.kr/eng>]
    - Monthly hits : 6,480 thousand
  
  - KOSIS Data Service [<http://kosis.go.kr>]
    - Statistics portal system in Korea
  
  - SGIS [<http://gis.kostat.go.kr>]
    - Statistical Geographic Information System



### 4. International Cooperation

- ❖ Exchange statistical missions on main issues with bilateral activities
  - Japan, China, Germany, Mongolia, Vietnam, Thailand, Iran, UAE, Kazakhstan
- ❖ Host or participate in international statistical conferences or courses
  - UN, OECD, ESCAP, ECE, ILO, ISI, IMF, SIAP
- ❖ Provide statistical data to international organizations
  - OECD, IMF, UN, etc.
- ❖ Technical Assistance for statistical capacity building of developing countries
  - Collaboration with the KOICA (seminars, experts, etc.)
  - Host SIAP Statistical Training Courses
  - Provide consulting service (IT) in cooperation with IOs



### 5. Statistical Training and Research

- ❖ STI trains various groups (statisticians, students, press, citizens)
  - deal with a wide range of topics (sampling techniques, survey methodology, individual surveys, statistical packages ...)
  
- ❖ SRI conducts analytic research relating to official statistics
  - Advanced analysis techniques, analysis of socioeconomic change and implications, new areas of statistics ...





**3**

## **Strategies For Advance of Statistics**

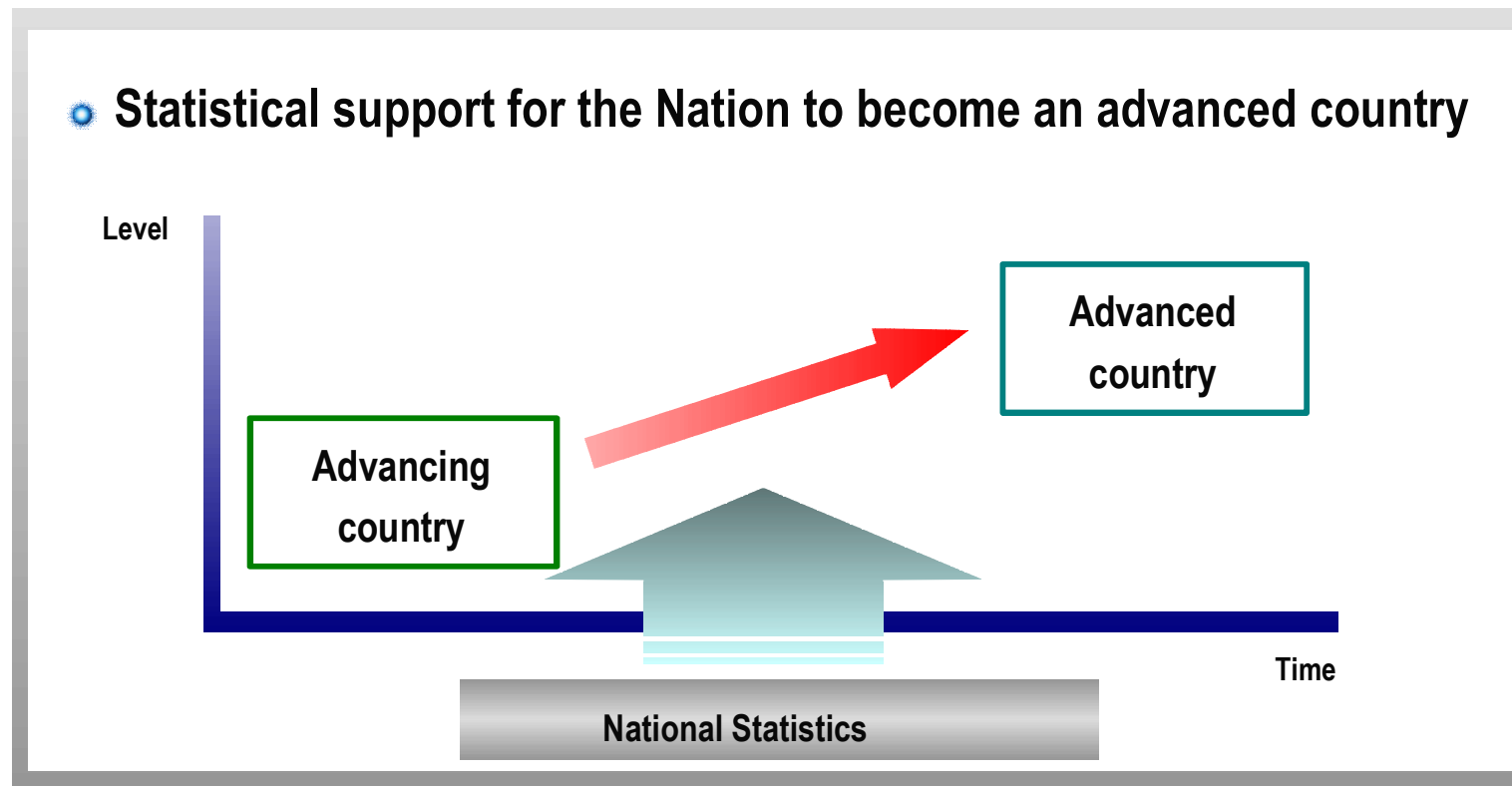
- Objectives of the strategy
- Core Strategy



# 1. Objectives of the Strategy

## Objective of National Statistics

- Statistical support for the Nation to become an advanced country



## 2. Issues of concern in current statistical system

### Weak infrastructure to meet growing user demands

- Lack of mechanism to match production of statistics to user needs
- Insufficient allocation of budget and human resources

### Shortcomings of the decentralized system

- Lack of comprehensive governance for developing and managing high-quality statistics
- Low priority to social/regional statistics compared with economic statistics

### Low utilization of administrative data

- Lack of data sharing due to low awareness and security reasons
- Inconsistencies in terminology, standards and classifications between administrative data

### Widening communication gap and poor quality control

- Public's distrust in statistics which is different from their perception
- Ineffective management of outsourced surveys of governments





## 3. Core Strategy

# Advance National Statistics

Responsiveness

Efficiency

Accuracy

Convenience



## 3-1. Develop Relevant Statistics for Supporting Policies

### Produce more policy-based statistics

- Systematically diagnose policies and relevant statistics in cooperation with national policy think-tanks and government agencies
  - Identify statistical needs
- Find out the newly required statistics through Statistics-based Policy Management System launched in 2008



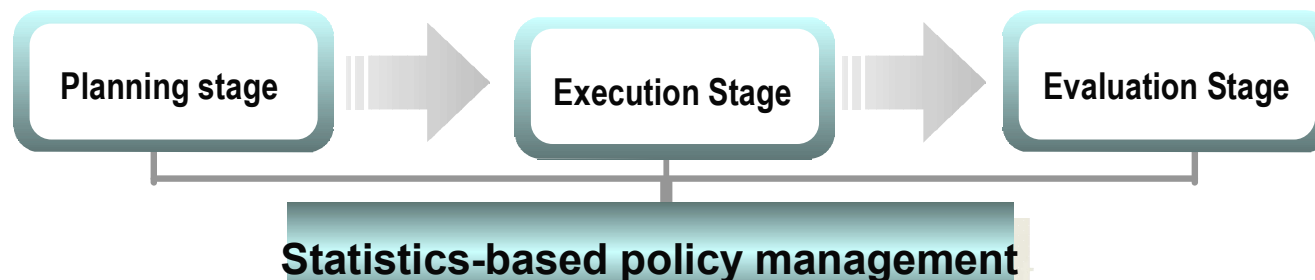
## 3-1. Develop Relevant Statistics for Supporting Policies

### Put in place statistics-based policy management

- Presidential Decree revised in 2007

“Government agencies should submit relevant statistics or plans to develop them when they revise acts.”

- Crucial role in evaluating policies



## 3-1. Develop Relevant Statistics for Supporting Policies

### Produce more policy-based statistics

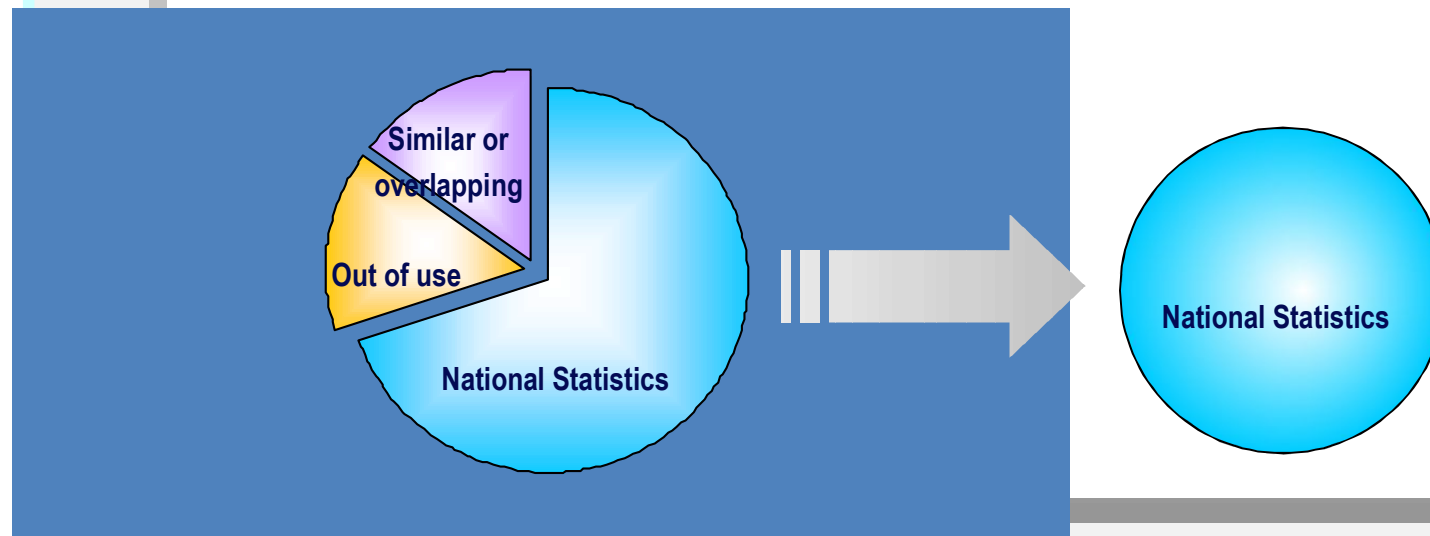
- Produce income inequality indicators at diverse dimensions
- Compile supplementary indicators of unemployment rate
- Produce statistics of newly emerging global agenda (quality of life, green growth, climate change...)



## 3-2. Enhance Efficiency

### Abolish or combine overlapping surveys and statistics

- Main targets: similar, overlapping, or out-of-use statistics
- Able to save about \$2 mil. per year



## 3-2. Enhance Efficiency

### More use of administrative data

- Some statistics can be replaced by administrative data.  
ex) Population Census, business surveys
- The revised Statistics Act provided the legal basis to use administrative data for producing statistics. ( 2009)
- Many issues remain to be resolved
  - Conflicts between agencies, technical problems to protect privacy, different classifications, etc.



## 3-2. Enhance Efficiency

### More use of administrative data

- Revise the tax law in order to use tax data
  - “Statistics Korea may use tax data to compile statistics”  
(in tax law)
- Established integrated system of combining administrative data with existing statistics (i.e.) tax data, 4 social insurance data
  - unemployment, health, pension, and industrial accident
- Various tax data to be accessed
  - Business register (name, address, tel., activity, etc.)
  - Data of VAT, income tax and corporate tax data)



## 3-2. Enhance Efficiency

### More use of administrative data

- Strengthen the electronic security for confidentiality of tax data
  - separate intranet from internet
  - management of log files
- Review correspondence between administrative data items and survey items
- Standardize the statistics compilation process





## 3-2. Enhance Efficiency

### More use of administrative data

#### Register-based census in 2015

- Conduct register-based census for the 2015 Population Census (i.e. resident registration, building registration, etc)
- Sample surveys only for particular items



## 3-2. Enhance Efficiency

### Increase the use of ICT

- Electronic survey methods are used for interviews and data input for a higher response rate.
  - CAPI (Computer-Assisted Personal Interviewing)
  - CASI (Computer-Assisted Self Interview)
  - CATI (Computer-Assisted Telephone Interview)
- Use remote sensing technology for compilation of agricultural statistics
- Establish a universal survey system for all data producers
  - Set up a comprehensive survey system supporting each stage of statistics production



## 3-3. Improve User's Trust

### Statistical quality management

- Monitor quality in each stage of data production to guarantee quality of national statistics
- Statistics Law gives the authority (Articles 9-11)

	<b>Rotational SQM</b>	<b>Ad-hoc SQM</b>	<b>Self SQM</b>
<b>Who</b>	<b>KOSTAT</b>	<b>KOSTAT</b>	<b>each agency</b>
<b>How often</b>	<b>every five years</b>	<b>as needed</b>	<b>annually</b>
<b>What</b>	<b>all statistics</b>	<b>low quality statistics</b>	<b>own statistics</b>



## 3-3. Improve User's Trust

### Conduct surveys on behalf of other statistical offices

- Weak survey infrastructure at many statistical agencies
- Survey on behalf of other statistics agencies utilizing KOSTAT interviewers.

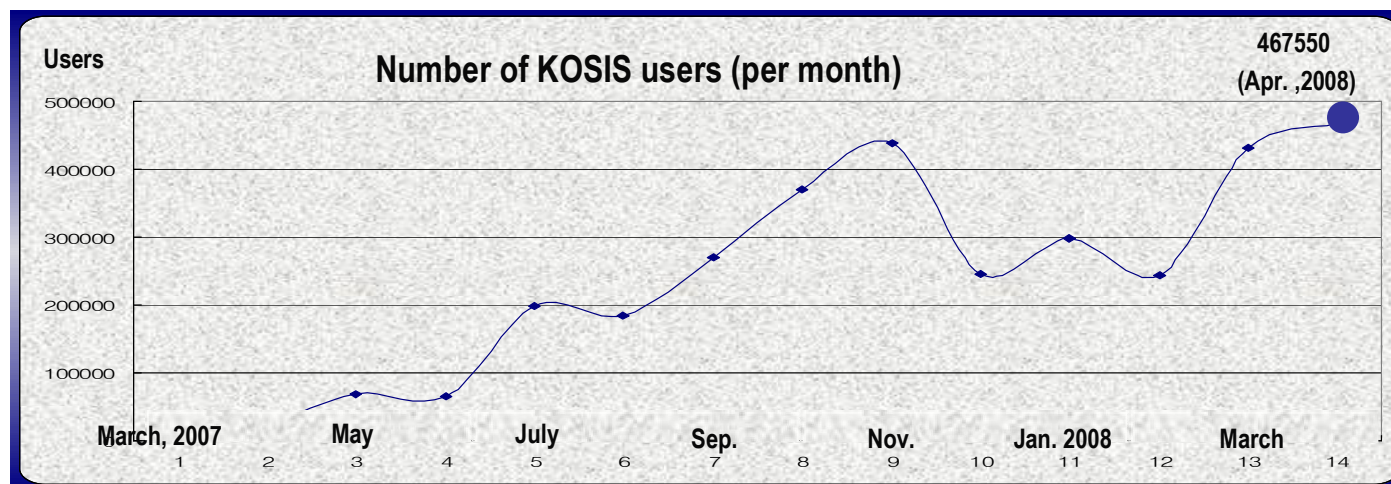
Ex) OECD International Assessment of Adult Competencies survey contracted out by the Education Ministry (2010)



## 3-4. Convenient Accessibility

### One-stop statistics service

- KOSIS : Korean Statistical Information Service
- Store 170 million data cells
- Planning to integrate all national statistics to KOSIS.



## 3-4. Convenient Accessibility

### E - National indicators service

- Include 835 key indicators to understand the status of Korea (employment, industrial production, price, GDP, etc.)
- Info on the meaning of each indicator and relevant policies
- Useful information for :

Policy makers

- Formulate better policies

Citizens

- Fully understand status of Korea



## 3-4. Convenient Access

### Statistical Geographic Information Service (S-GIS)

- Provide map-based small-area statistics
  - individual structures displayed; convenient for market analysis
- Useful information for :

#### Individuals

- Find location for residence
  - ex) baby care centers, schools, etc.

#### Business

- Find location to open business
  - ex) consumers, competitors, etc.

#### Government

- Effective welfare policy
  - ex) the poor, the old



# SGIS(Statistical Geographic Information System)

- ❖ Customized service for regional analysts of small-area data
- ❖ Utilize census maps and individual information on 27 census topics, covering 13.5 mil households and 3.2 mil businesses nationwide
- ❖ Statistical Data + Geographic information on a map
  - Display small-area statistics visually and spatially (down to 1 km<sup>2</sup>)
  - Provide the Statistical Navigator which is an useful and convenient tool for market analysis
  - Special value for market analysis





- ❖ KOSIS (Korean Statistical Information Service)
  - Most representative statistical DB in Korea for international statistics and domestic statistics produced by KOSTAT and other statistical domestic agencies
  
- ❖ Domestic and foreign data service
  - Provide 1.35 million time-series data in 22 subject groups
  - Supply data obtained from international organizations (UN, IMF, OECD)
  - Monthly visits 377 thousand, monthly pageview 11,793K
  
- ❖ Search criteria in KOSIS
  - ❖ By year, frequency, producer, subject group, topic



# (Reference) KOSIS(<http://www.kosis.kr>)

In KOSIS , any people can find the requested data by himself and On-line Publication Service is also available

The screenshot shows the KOSIS homepage in a Windows Internet Explorer browser. The address bar displays <http://www.kosis.kr/eng/index.htm>. The page features a navigation menu with 'HOME', 'HELP', and 'KOREAN'. A central banner reads 'Welcome to Korean Statistical Information System' with an illustration of a man holding a globe. Below the banner is a 'Statistical Database' section with a grid of categories: Population, Household; National Accounts, Gross Regional Domestic Product; Composite Economic Indexes, Industrial production; Employment, Labor, Wages; Price; Household income, Expenditure; Census on basic characteristics of establishments; Agriculture, Livestock breeding, Forestry, Fishing; Construction, Ports, Housing, Water supply service; Wholesale & retail trade, Service industry; Transport, Information & telecommunication; External trade, Foreign exchange, Balance of payment; Money, Banking. A copyright notice at the bottom states 'Copyright: STATISTICS KOREA All rights reserved since 1996'.

The screenshot shows the 'Statistics List & Table Selection' page in a Microsoft Internet Explorer browser. The address bar displays [http://kosis.nso.go.kr/cgi-bin/SWS\\_1021.cgi?KorEng=2&LUNFOLD=1&TableID=MT\\_TITLE&TitleID=B&Pub=4&UserID=](http://kosis.nso.go.kr/cgi-bin/SWS_1021.cgi?KorEng=2&LUNFOLD=1&TableID=MT_TITLE&TitleID=B&Pub=4&UserID=). The page is titled 'KOSIS Korean Statistical Information System' and includes a navigation menu with 'HOME', 'HELP', 'MAIL', and 'KOREAN'. The main content area is titled 'Statistical DB' and lists various categories. The 'Population, Household' category is selected, showing a list of sub-categories: Population, Population density, Resident registration population, Household, Internal migration (based on the Resident registration), International Migration, The Cause of Death Statistics (Deaths and Death rates), and Household. Below this list are three expandable sections: 'Vital statistics(number,rates) (Yearly :1970 ~ 2005)', 'Abridged Life Tables (Yearly :1970 ~ 2005)', and 'The increase rate of pop. & dependency ratios (Yearly :1960 ~ 2000)'. Each section has a checkbox for selection.



# (Reference) Statistics Tables

In KOSIS, any people can generate dynamic statistics tables by himself.

The screen after clicking on the title of statistics table is composed of an statistics table and functions of data adjustment.

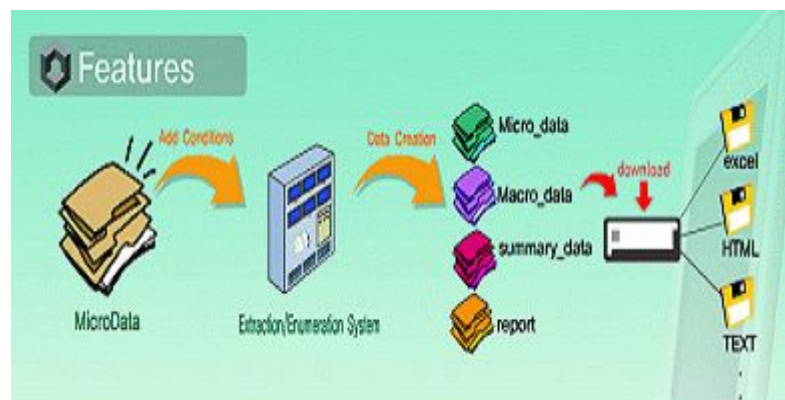
The screenshot displays the KOSIS web interface for generating statistics tables. The interface includes a search bar with filters for 'By administrative district', 'By age', and 'Item'. The search period is set to 'Irregularly' for the year '2005'. The decimal point is set to 'English'. The table title is 'Summary of Census population(By administrative district/sex/age)'. The table data is as follows:

By administrative district	* By age	2005			
		Population(Person)	Male(Person)	Female(Person)	Sex ratio(Percent)
Whole country	Total	47,041,434	23,465,650	23,575,784	99.53
	0-4 Years old	2,382,350	1,237,301	1,145,049	108.06
	5-9 Years old	3,168,887	1,654,228	1,514,659	109.21
	10-14 Years old	3,434,891	1,816,318	1,618,573	112.22
	15-19 Years old	3,100,523	1,626,378	1,474,145	110.33
	20-24 Years old	3,662,123	1,915,902	1,746,221	109.72
	25-29 Years old	3,671,847	1,858,332	1,813,515	102.47
	30-34 Years old	4,096,282	2,059,913	2,036,369	101.16
	35-39 Years old	4,112,785	2,065,668	2,047,117	100.91
	40-44 Years old	4,123,041	2,082,427	2,040,614	102.05
	45-49 Years old	3,900,899	1,961,859	1,939,040	101.18
	50-54 Years old	2,855,297	1,426,597	1,428,700	99.85
	55-59 Years old	2,278,438	1,126,997	1,151,441	97.88
	60-64 Years old	1,888,853	897,384	991,469	90.51
	65-69 Years old	1,680,067	755,949	924,118	81.80
70-74 Years old	1,252,734	514,241	738,493	69.63	
	75 Years old & over	0	0	0	0.00

Source : National Statistical Office (☎ : 042-481-2243)  
 Comment) -Figures for whole and total of each province include those of residence [more....](#)  
 Service : National Statistical Office

# MDSS (Micro Data Service System)

- ❖ Allow users to access micro-data protected by statistical disclosure control methods for in depth analysis through the Internet
- ❖ Micro-data coverage: establishments, households, industry ...





**Let's MLB**  
**( Major League Baseball? )**

**Make Life Better!**



ROYAUME DU MAROC



المندوبية السامية للتخطيط

HAUT-COMMISSARIAT AU PLAN

Rencontre internationale sur :

*« Replacer le rôle de la statistique  
dans un contexte national et international en  
mutation »*

## PROGRAMME

Le jeudi 15 décembre 2011

**INSEA-Rabat**

08h30 - 09h00	Réception
09h00 - 10h30	Séance d'ouverture
	Allocution de Monsieur Ahmed LAHLIMI ALAMI, Haut Commissaire au Plan
	<p>Séance Témoignage :</p> <ul style="list-style-type: none"> <li>- Monsieur Mohamed HORANI, Président de la Confédération Générale des Entreprises au Maroc ;</li> <li>- Monsieur Anis BIRROU, Secrétaire d'Etat auprès du Ministère du Tourisme et de l'Artisanat, Chargé de l'Artisanat ;</li> <li>- Monsieur Aziz RABBAH ; Président du Conseil Municipal de la ville de Kénitra ;</li> <li>- Monsieur Jeffrey WAITE, le Chef du Bureau par Intérim de la Banque Mondiale au Maroc ;</li> <li>- Madame Amani ABOU-ZEID, Représentante Résidente de la Banque Africaine de Développement au Maroc ;</li> <li>- Mot des enseignants de l'INSEA, Monsieur Abdelkhalak TOUHAMI, Professeur à l'INSEA ;</li> <li>- Monsieur Abderrahmane SINE, Président de l'Association des lauréats de l'INSEA ;</li> <li>- Mot du représentant de BDE des étudiants de l'INSEA.</li> </ul> <p><i>Présentation du timbre commémoratif. M. Amine BENJELLOUN TOUIMI, Directeur Général de Barid Al Maghrib</i></p>
10h30 - 11h00	Pause-café
11h00 - 12h30	Séance 1 : dimensions économique et sociétale de la production statistique
	L'économie appliquée au service de la décision politique Président : Monsieur Ahmed Lahlimi Alami
	<ul style="list-style-type: none"> <li>- <i>Les indicateurs avancés de conjoncture et leur performance durant la crise actuelle.</i> M. Jacques ANAS, COE-REXECODE</li> <li>- <i>Indicateurs de Conjoncture : Prévisions à court terme au Maroc.</i> M. Ali EL AKKAOUI</li> <li>- <i>Prévision économique et simulation des politiques publiques</i> M. Abdelhak ALLALAT, HCP</li> </ul>
	Débat
12h30 - 14h30	Déjeuner

14h30 - 17h30	<b>Dimension citoyenne de la statistique</b> <b>Président : Monsieur Rachid BELMOKHTAR, Président de l'ONDH</b>
	<ul style="list-style-type: none"> <li>- <i>Mesures objectives et perceptions : cas du Maroc.</i> M. Mohamed TAAMOUTI, HCP</li> <li>- <i>How's life? The OECD's work on measuring well-being and fostering the progress of societies.</i> M. Tim Clode, OCDE</li> <li>- <i>Quels instruments pour mesurer le bien être de la population ?</i> M. Khalid SOUDI, HCP</li> <li>- <i>La territorialisation du système d'information statistique : un enjeu du processus de régionalisation.</i> M. Larabi JAIDI</li> <li>- <i>Réglementer et contrôler les sondages d'opinions.</i> M. Benoit RIANDEY, INED, France.</li> </ul> <p><i>Débat</i></p>

## Vendredi 16 Décembre

09h00 - 10h30	<b>Séance 2 : Systèmes Nationaux d'Information Statistique et normes internationales : quelques exemples de pays</b> <b>Président : M. Adil KABBAJ, Professeur à l'INSEA</b>
	<ul style="list-style-type: none"> <li>- <i>Quels aspects de la problématique de Gestion du Système Statistique en France :</i> M. Jean-Pierre PUIG , INSEE, France.</li> <li>- <i>Le HCP, noyau du SNIS, quelles performances?</i> M. Mohammed TAAMOUTI, HCP</li> <li>- <i>Statistical systems in Korea.</i> M. Sun-Hyun EUN</li> <li>- <i>Expérience Canadienne en matière d'enquêtes auprès des ménages, Statistique Canada/Jean-Louis TAMBAY <sup>Statcan. J.C. Ca</sup></i></li> <li>- <i>Heurs et malheurs des innovations statistiques.</i> Jean-Jacques DROESBEKE, Université Libre Bruxelles, Belgique.</li> </ul>
	<i>Débat</i>
10h30 - 10h45	<i>Pause-café</i>
10h45 - 12h00	<b>Séance 3: L'enseignement de la statistique dans des contextes socio-économiques en mutation</b> <b>Président : M. Mohammed EL HAJ TIRARI, Professeur à l'INSEA</b>
	<ul style="list-style-type: none"> <li>- <i>Training programs for statistical competency development.</i> STI, Korea, M. Kyung Ae (Kay) Park</li> <li>- <i>Enseignement de la statistique en France.</i> M. Alain CHARRAUD, ENSAI, France</li> <li>- <i>Cinquante ans de formation à l'INSEA : quelles avancées ?</i> M. Lhoucein BOUBKRAOUI, INSEA</li> </ul>
	<i>Débat Général</i>