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REPORT ON THE CAPACITY SCREENING OF ECONOMIC STATISTICS IN ASIA AND PACIFIC 2017

Prepared by the
Statistics Division
of
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ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

Statistics Division

Regional Programme for the Improvement of Economic Statistics
in Asia and the Pacific (RPES)

Report on the Capacity Screening of Economic Statistics in Asia and the Pacific 2017

October 2018

Table of Contents

Introduction.....	1
Section 2: The Core Set of Economic Statistics.....	4
Section 3: Institutional setting	11
Section 4: Skills	15
Section 5: Censuses and surveys.....	17
Section 6: International collaboration and assistance	19
Section 7: Conclusions	21
Appendix I	23
Appendix: II	35

Introduction

The Regional Programme for the Improvement of Economic Statistics in Asia and the Pacific (RPES) was initiated by the Committee on Statistics. The Programme is designed to improve soundness of economic analysis and related decision making through increased availability and effective use of timely, reliable and comparable economic statistics.

RPES is implemented in three phases (2010-2013; 2014-2017; 2018-2020), with progress assessed at the end of each phase. The Capacity Screening Tool, a questionnaire, was developed as the monitoring tool for the Programme and first applied at the end of the first implementation phase in 2013.¹

The present report contains an overview of progress of the RPES by the end of the second implementation phase, as assessed through the application of the Capacity Screening Tool in 2017.

The report has seven sections. After this introductory section, progress in production and dissemination of the Core Set of Economic Statistics is covered.² The subsequent four sections capture institutional setting, skills, censuses and surveys, and international collaboration and assistance. The concluding section summarizes key results.

Designing the Capacity Screening Tool

The Capacity Screening Tool was developed by the Capacity Screening Task Force, established by the Steering Group for RPES.³

The Task Force revised the questionnaire used in the 2013 Capacity Screening, taking into account lessons learnt and recommendations made by the Steering Group for RPES and the Task Force that guided the 2013 capacity screening. One recommendation was to facilitate comparability of Capacity Screening results at different programme milestones by making minimal changes to the questionnaire. Taking that recommendation into consideration, the Task Force used the 2013 questionnaire as the starting point and took a cautious approach to introducing changes.

¹ The results of the 2013 Capacity screening are available at <https://www.unescap.org/resources/capacity-screening-economic-statistics> and <http://communities.unescap.org/economic-statistics/knowledge-base/national-summaries-capacity-screening>;

² The Core Set of Economic Statistics reflects the scope and ambition of RPES and functions as a reference for progress monitoring. The Core Set includes 31 items, representing the minimum set of economic statistics that a country should produce for sound economic policy making. The Core Set was endorsed by the Commission in 2011 as a regional framework to focus efforts, coordinate training and mobilize donor support for capacity-building of national statistical systems to produce and disseminate economic statistics in line with international standards (ESCAP resolution 67/10 and E/ESCAP/CST(3)/CRP.1).

³ The Task Force had five members: Ayca Ozek Sultan, Turkey; Naoki Makita, Japan; Nilima Lal, SPC; Tulay Korkmaz, Turkey; Wang Ping, China and the chair: Suzanne Wong, Singapore.

The resulting 2017 Capacity Screening Tool is structured around the four main outcomes of the RPES, namely advocacy, coordination, infrastructure and skills. The content of each section of the questionnaire is outlined below:

- **RPES Effectiveness:** This section covers questions on perceived effectiveness of RPES, interest in providing or receiving assistance within the Programme, and types of assistance required and received.
- **Institutional Setting:** Questions on institutional aspects including statistics legislation, planning for statistics development of the country, coordination among producers of statistics, and dissemination and advocacy activities were included in this section;
- **Training:** To capture the capacity of countries to build and maintain the skills of statisticians working in their national statistical systems, this section incorporates questions on availability of induction programmes and other economic statistics training and asks respondents to elaborate on reasons for non-availability of training for staff working on economic statistics;
- **Statistical Infrastructure:** The section includes issues on availability and frequency of key collections such as Labour Force Survey, Household Income and Expenditure Survey, Enterprise/Establishment Survey, Population Census, Economic Census, Agriculture Census as well as Statistical Business Register. There were questions on metadata and data quality assessment framework as well;
- **Core Set:** This section has questions on availability of the 31 Core Set items of Economic Statistics as well as reasons for unavailability of the Core Set items and plans to overcome related constraints.

Applying the Capacity Screening Tool

The Capacity Screening Tool was circulated to countries in the ESCAP region on 28 June 2017. By 15 March 2018, 50 countries had responded.

Prior to circulation and as recommended by the earlier Task Force, the questionnaires had been pre-filled with the results from the 2013 Capacity Screening Exercise. Country responses were facilitated and coordinated by national focal points (see table 3 of appendix I).

Of the 50 respondents, 46 had also responded in 2013, thereby enabling comparison. The eight non-responding countries and areas represent 1% of the total population of the ESCAP region.⁴ An overview of country participation is provided in table 2 of appendix I.

⁴ Population figures used for this calculation are available at http://data.unescap.org/escap_stat/#data/ (date of access 26 June 2018).

Review and validation of responses

The completed questionnaires were reviewed and validated by the secretariat⁵ in consultation with the national focal points. The review revealed a number of inconsistencies and inaccuracies in the responses but also a substantial reduction in non-responses from 385 in 2013 to 292 in 2017.

As a result of the review process, 180 of a total of 11,817 data points were changed.

⁵ For Pacific island countries, SPC acted as the secretariat in confirming and identifying changes.

Section 2: The Core Set of Economic Statistics

The Core Set of Economic Statistics includes 31 items considered to constitute the minimum set of economic statistics that a country should produce for sound economic policy-making. The Core Set has been approved by the ESCAP Committee on Statistics and endorsed by the Economic and Social Commission for Asia and the Pacific.⁶ The aim of the RPES is for all countries in Asia and the Pacific to have the capacity to produce the Core Set by 2020.

2.1 Investigating explanatory factors for Core Set production: Regression analysis

When analysing responses to the Capacity Screening questionnaire, the number of Core Set items produced by country revealed some surprising patterns. For example, somewhat counter-intuitively, upper-middle income countries on average produce less Core Set items than lower-middle income countries. To examine this further, a regression analysis was conducted.

Different regression models for the count of produced Core Set items were tested, controlling for GDP per capita, population size, population groupings, income groupings and sub-regions. The model presented in Table 1 had the best fit and the highest explanatory power. The model controls for population size, GDP per capita and whether a country is from the North and Central Asian sub-region (no other sub-region was statistically significant).

The analysis shows that population size, GDP per capita and being a country from North and Central Asia all have a significant and positive correlation with the number of produced Core Set items.⁷

⁶ [http://undocs.org/en/E/ESCAP/CST\(2\)/4](http://undocs.org/en/E/ESCAP/CST(2)/4)

⁷ Appendix II contains a detailed description of the regression analysis.

Table 1: Linear regression results

	Min	Max	Mean	Median	Standard deviation	Dependent variable
						Number of produced Core Set items
Population in thousand (ln)	7.6	21.1	15.1	15.6	3.2	2.05*** (0.2)
GDP per capita (ln)	7.5	11.6	9.2	9.1	1.1	2.13*** (0.53)
North and Central Asia	0	1				6.2** (1.84)
Constant						-28.8*** (6.01)
Observations						46
Adjusted R2						0.729
Res. Std. Error						4.358 (df = 42)
F Statistic						41.429*** (df = 3; 42)
Note:						*p<0.1; **p<0.05; ***p<0.01

The coefficients of population size and GDP per capita are almost the same and that might suggest that both variables are equally important. However, looking at the explanatory power of each variable, a different picture emerges. Population alone explains more than 50% of the differences between countries, while GDP per capita explains less than 10%, according to the partial R^2 .

This is supported by looking at the standard deviations of the coefficients. Even though the standard deviation and the dispersion of the population size variable are higher than the ones for GDP per capita, the standard deviation of the population coefficient is significantly smaller than the GDP coefficient. Hence, the main explanatory factor behind the count of produced Core Set items is the population size rather than GDP per capita.

Also, the results show that a country from North and Central Asia produces six Core Set items more on average compared to a country with an identical population size and GDP per capita.

The chosen model explains 73% of the variations in the data and can be used to regenerate country responses with accuracy for most countries. For instance, it estimates that Lao Peoples' Democratic Republic produces 20 Core Set items; exactly the number reported. Another example would be Azerbaijan, which produces 29 items, while the model estimates it to produce 28. The country with the largest difference between model calculations and actual number of produced Core Set items is Afghanistan. The model predicts Afghanistan to be producing 20 Core Set items while it only produces 8. The country with the largest under prediction is Fiji, which produces 28 Core Set items while the predicted number is 18.

Population size and its effect

The analysis shows correlation between the number of Core Set items and the population size. This may be explained by the following:

- **Economies of scale:** The larger a country's population, the smaller the share of population needs to be surveyed for a representative sample. Relatively speaking therefore, costs of surveys decrease with higher populations.
- **Availability of staff:** Smaller countries have smaller statistical offices. As economic statisticians usually specialize due to the time required to develop mastery of the topic, smaller offices may need to limit the scope of their economic statistics production to a few high-priority items to ensure matching staff expertise and hence satisfactory quality.

2.2 Core Set production: Overview of survey results

As mentioned in the previous section, a key factor explaining the count of Core Set items produced by countries was population. Therefore, the analysis in this section, and many of the following ones, is presented by population size groupings. The table below gives an overview of population size groupings and responding countries per grouping. A list of countries per grouping is provided in appendix I, table 1.

Table 2: Country groupings by population size

Grouping	Population range	Number of countries (respondents , 2017)	Number of countries (respondents , 2013 & 2017)	Combined population (2017)	Population share (Percentage)
Micro	Less than 100,000	7	7	227,000	0.0%
Small	100,000 to 1 million	10	10	4,168,000	0.0%
Medium	1 to 30 million	17	15	177,740,000	4.0%
Large	30 million+	16	14	4,248,763,000	95.9%
Total		50	46	4,430,898,000	100.0%

Table 3 shows the average number of Core Set items produced by population size grouping. As expected, the number of Core Set items increases with increased population size. Micro countries produce on average 28% of the Core Set items compared with 57% for small, 75 for medium and 86% for large countries.

The number of Core Set items produced by ESCAP income and sub-regional groupings are shown in appendix I, tables 4 and 5.

Table 3: Average number of Core Set items produced by countries, by population size grouping, 2017 (n=50)

Population size grouping	Number of responding countries	Average number of Core Set items	Percentage of Core Set items
Micro	7	9	28%
Small	10	18	57%
Medium	17	23	75%
Large	16	27	86%
Total	50	21	68%

It is noticeable that Micro countries produce only half as many Core Set items as do Small countries, even though Micro countries on average have a higher GDP per capita than Small countries.

Considering the goal of RPES, namely for all countries to have the capacity to produce the full Core Set by 2020, Table 3 also shows that the Micro countries account for 31% of the current “missing” Core Set items. This group of countries represent 14% of the countries and less than 0.1% of the region’s population.

The averages listed in Table 3 are influenced by outliers. For example, when excluding Afghanistan and Papua New Guinea, countries with a population of over one million on average produce 27.7 of the 31 Core Set Items. Countries with more than one million inhabitants account for 98% of the population of the region. As such, policy makers when making decisions for 98% of the region’s population have access to a high proportion of Core Set items.

A key finding of the Capacity Screening of 2017 is therefore that the region as a whole is very close to meeting the 2020 programme objective of having the capacity to produce the full Core Set of Economic Statistics.

Table 4 shows the top 5 most produced and the 10 least produced Core Set items in the region.

Table 4: Most and least produced Core Set items in 2017, by population size grouping, % of countries (n=50)

Core Set item	Micro	Small	Medium	Large	Regional average
Most Produced					
Consumer Price Index	100%	100%	100%	100%	100%
GDP (production) nominal and real	100%	100%	94%	100%	98%
External trade - merchandise	86%	100%	94%	100%	96%
Balance of payments (BOP)	71%	90%	88%	100%	90%
General government operations	86%	100%	88%	88%	90%
Least Produced					
Natural resources and environment	0%	30%	35%	50%	34%
Commodity Price Index	0%	0%	41%	75%	38%
Labour costs/Wage index	0%	10%	65%	63%	44%
Institutional sector accounts	14%	10%	47%	75%	44%
STI - consumer demand	0%	30%	53%	75%	48%
External merchandise trade price indices	0%	30%	59%	81%	52%
STI – inventories	0%	40%	65%	69%	52%
Productivity	0%	20%	71%	81%	54%
STI - services output	0%	30%	71%	88%	58%
STI - fixed investment	0%	40%	71%	88%	60%

Examining production of each Core Set item reveals substantial variations (see table 6 in appendix I for the full list of Core Set items); with CPI being produced by all respondents but only 34% of countries producing natural resource and environment statistics.

There are many possible reasons why countries may not produce a Core Set item; a deliberate choice not to produce or not to publish, lack of skills, lack of data, lack of resources, etc. These all interact with how difficult or resource intensive a Core Set item is to produce.

For example, Short Term Indicators (STI) which account for 4 of the 10 least produced items are usually (there are some exceptions) based on sub-annual surveys. If sub-annual collections are not undertaken, it may be impossible to produce these estimates with the required accuracy.

Productivity, institutional sector accounts and natural resources and environmental statistics are arguably the three most complex and difficult Core Set items to produce. Productivity statistics and institutional sector accounts require detailed company level data to be calculated accurately, while natural resources and environmental statistics require collaboration among several institutions and are subject to new and evolving statistical standards such as the System of Economic and Environmental Accounts (SEEA).

The low number of Commodity Price Indices produced could be explained by the existence of competing private sector statistics. Many private organizations are involved in publishing such indices (on a commodity level) and this may therefore be a lower priority for some statistical systems. Calculating price indices that include commodities are essential to producing national accounts; as such it is quite possible that many countries do have this but choose not to publish. This is also true for Import and Export Price Indices; essential for national accounts but may not be published.

Table 5 below provides an overview of progress in the production of Core Set items between the two milestone years, 2013 and 2017. The table presents results only from the 46 countries that responded to both Capacity Screening Exercises. Moreover, Core Set items for which a non-response was recorded in either year are not included.

Table 5: Number of produced Core Set item, by population size grouping, 2013 and 2017 (n=46)

Population size grouping	Number of responding countries	Average number of Core Set items, 2017	Increase in the number of Core Set items, 2013-2017
Micro	7	9	0.9
Small	10	18	2.3
Medium	15	26	0.6
Large	14	27	1.2
Total	46	22	1.2

Countries in the region have on average increased the number of produced Core Set items by 1.2 from 2013 to 2017. The largest increase of 2.3 Core Set items is observed for Small countries. This increase was driven mainly by improvements in Brunei Darussalam and Samoa.

Table 6: Average number of Core Set items meeting minimum frequency by population size grouping, 2017 (n=50)

Population size grouping	Average number of Core Set items meeting minimum frequency	Percentage of total Core Set items
Micro	2	7%
Small	11	35%
Medium	19	62%
Large	22	70%
Total	16	52%

The population size of a country influences substantially whether a Core Set item is produced with the minimum recommended frequency. For example, Micro countries, on average, only produce two Core Set items with the required frequency, compared to 22 for Large countries.

The Capacity Screening questionnaire included questions on the reasons for non-availability of Core Set items. The main reported reasons were lack of skills/expertise, inadequate manpower, and irrelevance of the Core Set item in question. It should be noted that several responses to questions about non-availability were of poor quality and that this group of questions had a high non-response rate.

Section 3: Institutional setting

Production and dissemination of sound economic statistics requires an enabling institutional environment. The Capacity Screening included questions on institutional aspects including statistics legislation, planning for statistics development, coordination among producers of statistics, and dissemination and advocacy. The present section has a sub-section on each of those four aspects.

3.1: Legislation

Existence of a well-defined Statistical Act adhering to the Fundamental Principles of Official Statistics is foundational for ensuring quality statistics production and dissemination.

Of the 50 responding countries in 2017, all except one have a Statistical Act in place. Of those, 49 include provisions on the protection of confidentiality of respondents' information, 47 include provisions on transparency and 46 have provisions to protect the professional independence of official statistics.

36 of the 49 Statistical Acts were reported to include provisions that allow agencies in the national statistical system to acquire administrative data for statistical purposes. Still, 25 respondents indicated that they planned to change the Statistical Act, with the most common reason being that the current Statistical Act did not provide sufficient access to administrative data.

3.2: Planning for statistics development

81% of responding Large countries reported to be implementing a National Strategy for the Development of Statistics (NSDS) or similar master plan for statistics development. The same was the case for 71% of responding Medium countries, compared to only 30% and 14% of Small and Micro countries, respectively.

Developing, implementing and monitoring an NSDS is a substantial undertaking, which may deter Micro and Small countries with small statistical systems. Indeed, countries not having and not planning an NSDS are all Micro and Small countries.

Table 7: Status of NSDS by population size grouping, number of countries, 2017

	Micro	Small	Medium	Large
NSDS under implementation	1	3	12	13
NSDS developed or planned	3	5	4	3
NSDS not planned	3	2	0	0
Non-response	0	0	1	0

Table 8: Characteristics of NSDSs under implementation, percentage of countries* answering “yes,” 2017

	Micro	Small	Medium	Large	Regional average
The statistical strategic plan/NSDS is available on a public website	100%	67%	83%	92%	86%
The NSDS covers issues related to coordination across the National Statistical System	100%	100%	100%	100%	100%
The NSDS covers issues related to existing statistical legislation	100%	100%	83%	100%	93%
The NSDS covers issues related to government support and advocacy	100%	67%	92%	100%	93%
The NSDS includes a detailed action plan	100%	67%	75%	100%	86%
The NSDS covers monitoring and review	100%	33%	100%	92%	90%
The NSDS is linked to the country’s national development plan	100%	100%	58%	92%	79%
There are practical arrangements for ensuring sufficient government support	100%	100%	58%	92%	79%
Advocacy activities are planned/conducted for securing government support	0%	67%	83%	85%	79%

**The table summarizes responses from the 29 countries reporting to be implementing an NSDS (see table 7)*

Table 8 shows that, irrespective of population size, countries implementing an NSDS are following several best practices.

3.3: Coordination

Table 9 below summarises country responses on coordination mechanisms used to manage the production of economic statistics in their country.

**Table 9: Status of national statistical coordination by population size grouping, 2017
(n=50)**

	Micro	Small	Medium	Large	Regional average
Number of countries	7	10	17	16	
Percentage of countries answering “yes”					
Responsibility for producing the Core Set of Economic Statistics among agencies is clearly specified	71%	80%	76%	94%	82%
There are plans currently implemented or under development to improve coordination of production of economic statistics	57%	70%	76%	100%	80%
There are systems in place that allow for data sharing	43%	40%	47%	75%	54%

82% of the respondents have clearly specified and delineated responsibilities for producing the Core Set of Economic Statistics. The larger the country, the more likely it is to have plans for improving coordination of the production of economic statistics. Also, 75% of Large countries responded that they have systems in place that allow for data sharing while for all other population size groupings, the proportion answering “yes” was less than half.

3.4: Dissemination and advocacy for economic statistics

Good dissemination and advocacy policies can increase awareness and demand for official statistics. Table 10 summarises responses to questions on best practice for dissemination and advocacy.

Table 10: Status of dissemination and advocacy activities by population size grouping, percentage of countries, 2017 (n=50)

	Micro	Small	Medium	Large	Regional average
Number of countries	7	10	17	16	
Percentage of countries answering yes					
Data dissemination policies are in place and available to users	14%	60%	94%	100%	78%
Contact information for each statistical domain is published	57%	70%	100%	100%	88%
There is a data bank for users	71%	80%	88%	88%	84%
An advance release calendar is published	29%	40%	76%	81%	64%
Regular activities to enhance awareness and use of official economic statistics among users	71%	70%	94%	94%	86%
Regular users' surveys to assess users' needs and satisfaction	14%	10%	76%	88%	58%
Other user engagement activities, processes or methods	57%	30%	71%	75%	62%

Population size matters in terms of country engagement in various dissemination and advocacy activities. For every question asked, Micro and Small countries have lower percentages than the corresponding regional average. The difference is particularly high for availability of an advance release calendar, regular activities to enhance awareness among users and for conducting regular users' survey.

Section 4: Skills

The results of the 2013 Capacity Screening identified skills building to be a key priority for statistical capacity development in the region.⁸ To capture the underlying capacity constraints in more detail, the section on human resources was revamped in the questionnaire for the 2017 Capacity Screening. The section includes questions on induction programmes and other economic statistics training and asks respondents to elaborate on reasons for non-availability of training for staff working on economic statistics.

More than 75% of the combined group of Small, Medium and Large countries have a dedicated training unit within the national statistical system, with larger countries being more likely to have one. Only 29% of Micro countries have a dedicated training unit within their statistical systems.

Table 11: Status of statistical training by population size grouping, 2017 (n=50)

	Micro	Small	Medium	Large	Regional average
Number of countries	7	10	17	16	
Percentage of countries answering yes					
There is a dedicated unit within the national statistical system overseeing staff training in general	29%	60%	71%	88%	68%
Induction programmes on statistics are organised for statistical staff working on economic statistics in the National Statistical Office (NSO)	71%	50%	76%	100%	78%
Induction programmes on statistics are organised for statistical staff working on economic statistics in other agencies	29%	50%	53%	94%	62%
Specific training on economic statistics is provided to statistical staff working in the NSO	86%	80%	76%	100%	86%
Specific training on economic is provided to statistical staff working on economic statistics in other agencies	29%	60%	53%	75%	58%

⁸ See the full report at <https://www.unescap.org/resources/report-region-wide-capacity-screening-economic-statistics-asia-and-pacific>

The regional average for availability of induction programme and specific training on economic statistics for staff of the National Statistical Office (NSO) are 78% and 86% respectively. Staff working elsewhere in the national statistical systems are provided with similar opportunities for training in 62% and 58% of the responding countries.

It is interesting to note the substantial difference between the availability of economic statistics training (86%) for NSO staff and the existence of dedicated training units (29%) in Micro countries. As an explanation, respondents note that internationally provided training successfully closes this gap. The following organizations were mentioned as training providers in the responses: Asian Development Bank (ADB), Australia Bureau of Statistics, ESCAP/SIAP, International Monetary Fund, New Zealand Statistics, Pacific Community (SPC) and PFTAC.

Section 5: Censuses and surveys

Censuses and surveys are central to the production of economic statistics. No country in the world can produce quality statistics without some surveys; in countries where administrative data are not available or of substandard quality, censuses and surveys are even more foundational. The availability and frequency of censuses and surveys therefore provide an indication of the ability of a country to produce Core Set items of sufficient quality.

Table 12 provides an overview of data collections by the respondent countries (irrespective of their frequency).

Table 12: Censuses and surveys 2013 and 2017, number of countries (n=46)

Collection	2013	2017	Change
Labour Force Survey	39	38	-1
Household Income and Expenditure Survey	43	46	3
Enterprise/Establishment Survey	34	37	3
Population Census	44	45	1
Agricultural Census	33	34	1

All countries who responded in both 2013 and 2017 conducted a Household Income and Expenditure Survey in 2017. As this survey is essential for the compilation of CPI, this is a positive indicator for the quality of CPI for the region.

Between 2013 and 2017, there is an increase in the availability of all key collections except the Labour Force Survey. For the Labour Force Survey, there was only one change; one Small country from South and South-West Asia did not continue the survey in 2017.

Without surveys, key economic data are unknown and if there is no recent economic census (last five years) or functional SBR, sample surveys will be biased and not of sufficient quality to produce quality statistics. Table 13 groups the responding countries accordingly: (1) Those without an SBR or recent economic census; (2) those with a recent economic census or SBR but without annual or sub-annual establishment/ enterprise surveys; and (3) those with an SBR or economic census and with annual or sub-annual establishment / enterprise surveys.

Table 13: Availability of infrastructure and surveys for economic statistics production, number of countries, 2017 (n=50)

Country status	Number of countries	SBR / Recent Econ Census⁹	Sub/Annual establishment / enterprise survey
Doesn't have SBR or Recent Economic Census	15	0	6
Has recent Economic Census / SBR but no sub/annual establishment / enterprise survey	8	8	0
Has SBR / recent Economic Census and conducts at least an annual establishment /enterprise survey	27	27	27
Total	50	35	33 ¹⁰

Of the 50 respondents in 2017, 27 responded that they conducted an establishment / enterprise survey on at least an annual basis and that the survey frame was based on a recent economic census or SBR. This indicates that national accounts and Core Set items are based on sufficient information to enable quality statistics.

Of the 15 respondents without an SBR or a recent economic census, 6 indicated that they did conduct annual / sub annual establishment / enterprise surveys. Given the lack of a suitable survey frame, the quality and accuracy of these survey results must be in question. Countries in this group should consider developing an SBR based on administrative data or conducting an economic census to enable economic surveys of sufficient quality.

8 countries responded that they had an SBR or recent economic census but no economic surveys on an annual or sub-annual basis. A few of these respondents identified lack of funding and other resources for conduct of regular surveys; these had also received funding support from an international organization for their most recent economic census or survey.

In summary, 27 of the 50 responding countries base the production of Core Set items on a solid foundation of business registers or censuses, combined with regular surveys. It is interesting to note that despite that, all 50 countries produce and publish at least one measure of GDP on an annual basis.

⁹ Column 2 and 3 of the table are subsets of the countries in column 1. So, for example, of the 15 countries without SBR/census, 6 do conduct annual or sub annual surveys.

¹⁰ In 2017, 37 countries responded to conduct Economic/Establishment/Enterprise Survey. Of these, 4 countries indicated the surveys being conducted every 5 years. They are hence below the required (annual) frequency and not included.

Section 6: International collaboration and assistance

The 2017 Capacity Screening included questions on perceived effectiveness of RPES, interest in providing or receiving assistance within the Programme, and types of assistance required and received.

Table 14 summarizes the results on the perception of RPES effectiveness by income groupings. It would be expected that countries from lower income groups would perceive RPES to be contributing more to their statistical capacity development than higher income countries.

Table 14: Perception of RPES effectiveness by ESCAP income grouping, percentage of countries, 2017 (n=50)

	Low income	Lower middle income	Upper middle income	High income	Regional average
Number of countries	15	15	11	9	
Percentage					
RPES contributed to a large extent	40%	47%	45%	22%	40%
RPES contributed to some extent	40%	33%	36%	56%	40%
RPES contributed very little	7%	13%	0%	22%	10%
RPES not at all contributed	0%	0%	9%	0%	2%
Non-response	2	1	1	0	8%

80% responded that the Programme contributed to a large or to some extent to their statistical capacity building. A positive result for RPES. Somewhat surprisingly, 78% of high income countries also responded that the programme contributed to a large or to some extent to their capacity development. However, comments from these countries indicated that their response reflected their perception of the extent to which the programme had supported the development of economic statistics in the broader region.

When queried about international co-operation 64% of the responding countries were interested in being a provider of technical assistance while 81% were interested in being a recipient.

Table 15 examines the status of external support for statistical collections by income grouping. External support is considered as receiving either technical or financial support for the collection.

Table 15: Key collections and external support by ESCAP income grouping, number of countries, 2017(n=50)

	Low income	Lower middle income	Upper middle income	High income
Number of countries	15	15	11	9
Does Labour Force Survey	13	13	7	9
Receive external support	8	3	0	0
Does Household Income and Expenditure Survey	14	15	11	9
Receive external support	7	5	1	0
Does enterprise/establishment Survey	14	12	6	9
Receive external support	4	3	0	0
Does population census	14	15	11	9
Receive external support	9	7	2	0
Does economic census	9	8	5	4
Receive external support	2	1	3	0
Does agricultural census	12	11	9	5
Receive external support	6	6	4	0

More than half of Labour Force Surveys, HIESs, and population and agricultural censuses in Low income countries receive international support. Not unexpectedly, this proportion decreases for higher income groupings.

International support remains critical in enabling certain countries to undertake collections. This is both encouraging and problematic. Encouraging that there is international support available. Problematic because it makes national statistical offices vulnerable to changing donor priorities over which they have no control. This mirrors the responses to the survey and census section of the questionnaire (see section 5) where several countries indicated the reason for infrequent or irregular collections as dependency on international support.

Section 7: Conclusions

The 2017 capacity screening shows progress in economic statistics production and dissemination in the Asia-Pacific region. The number of Core Set items produced and published has increased by 1.2 per country on average since 2013; countries accounting for 98% of the region's population produce on average 27.7 of the 31 Core Set items. Coordination of economic statistics is in general well-coordinated among the key producing agencies. Efforts are plenty to improve the legal and statistical infrastructure necessary for economic statistics production, with 49 of 50 countries having legislation for official statistics in place and several countries being in the process of developing a Statistical Business Register. Also, a sizeable majority of staff working on economic statistics has access to regular training provided either by their national training institute or by development partners.

The population size of a country is closely correlated with the number of produced Core Set items. In Asia-Pacific, countries with a population above one million, excluding Papua New Guinea and Afghanistan, produce on average 27.7 Core Set items while those with less than a million, on average, produce 13.9 Core Set items. No country with less than 100,000 people produces even half the Core Set items and these countries account for 31% of the non-produced Core Set items.

One explanation for the correlation between population size and the number of Core Set items produced is returns to scale. A lower number of Core Set items may not necessarily indicate lack of capacity to produce the statistics, it may represent a deliberate choice by smaller countries considering the higher marginal costs of some Core Set items. The results of the capacity screening indicate that returns to scale is indeed part of the explanation, when considering that also relatively rich, small countries produce only a subset of the Core Set.

The same logic holds for several other areas covered in the questionnaire:

- Dedicated Training units
- National Strategy for the Development of Statistics (NSDS)
- Frequency of production of the Core Set items
- Dissemination and advocacy activities

For small countries, alternative approaches to economic statistics production and capacity development could therefore be considered. For example, some tasks and responsibilities could be taken up by regional or sub-regional programmes or institutions.

These results raise questions as to whether producing all 31 Core Set items is a meaningful aim for all countries. It could be considered developing a separate programme with distinct goals, outcomes and a strategy for countries with less than a million people. Such programme should reflect that most Asia-Pacific countries with less than a million people are part of the Pacific sub-region.

It is important to note that quality (beyond availability and frequency) of the produced Core Set items was not assessed through the Capacity Screening Exercise given the difficulty of measuring quality and the need to minimize respondent burden. However, aspects of quality can be inferred from other questions in the exercise. The analysis of availability of statistical business registers, economic censuses and economic surveys shows that 23 of the 50 responding countries were not able to base annual establishment / enterprise surveys on a proper survey frame (recent Economic Census or SBR). For these 23 countries, developing SBRs or undertaking regular censuses would be a priority. This finding should also cause reflection among development partners supporting economic infrastructure, censuses and surveys. Several countries indicated that the reason for infrequent or irregular collections was dependency on international support.

Appendix I

Table 1: Country profiles¹¹

Country	Population*	GDP per capita**	ESCAP income groups	ESCAP sub-region	Population size group
Afghanistan	35,530	1,740	Low income	SSWA	Large
American Samoa	56	Unavailable	Upper Middle income	Pacific	Micro
Armenia	2,930	8,190	Lower Middle Income	NCA	Medium
Australia	24,451	44,416	High income	Pacific	Medium
Azerbaijan	9,828	16,055	Lower Middle Income	NCA	Medium
Bangladesh	164,670	3,319	Low income	SSWA	Large
Bhutan	808	8,253	Low income	SSWA	Small
Brunei Darussalam	429	71789	High income	SEA	Small
Cambodia	16,005	3,465	Low income	SEA	Medium
China	1,409,520	14,145	Upper Middle income	ENEA	Large
Cook Islands	17	Unavailable	Upper Middle income	Pacific	Micro
Democratic Peoples' Republic of Korea	25,491	Unavailable	Low income	ENEA	Large
Fiji	906	8,447	Lower Middle Income	Pacific	Small
French Polynesia	283	Unavailable	Upper Middle income	Pacific	Small
Georgia	3,912	8,790	Lower Middle Income	NCA	Medium
Guam	164	Unavailable	High income	Pacific	Small
Hong Kong, China	7,365	54,605	High income	ENEA	Medium
India	1,339,180	6,093	Low income	SSWA	Large
Indonesia	263,991	10,765	Lower Middle Income	SEA	Large

¹¹ GDP per capita 2011 PPP is available at http://data.unescap.org/escap_stat/#data/; ESCAP income groupings and sub-regions are available at http://data.unescap.org/escap_stat/src/js/templates/methodDefinition/Data/Country_grouping_7Now_2017.pdf

Country	Population*	GDP per capita**	ESCAP income groups	ESCAP sub-region	Population size group
Iran (Islamic Rep. of)	81,163	18,498	Lower Middle Income	SSWA	Large
Japan	127,484	380,275	High income	ENEA	Large
Kazakhstan	18,205	23,195	Upper Middle income	NCA	Medium
Kiribati	116	1,955	Lower Middle Income	Pacific	Small
Kyrgyzstan	6,045	3,362	Low income	NCA	Medium
Lao Peoples' Democratic Republic	6,858	5,735	Low income	SEA	Medium
Macao, China	623	96,566	High income	ENEA	Small
Malaysia	31,624	25,669	Upper Middle income	SEA	Large
Maldives	436	14,232	Upper Middle income	SSWA	Small
Marshall Islands	53	3,730	Lower Middle Income	Pacific	Micro
Micronesia (F.S.)	106	3,254	Lower Middle Income	Pacific	Small
Mongolia	3,076	11,361	Lower Middle Income	ENEA	Medium
Myanmar	53,371	5,305	Low income	SEA	Large
Nauru	11	14,893	Upper Middle income	Pacific	Micro
Nepal	29,305	2,298	Low income	SSWA	Medium
New Caledonia	276	Unavailable	High income	Pacific	Small
New Zealand	4,706	35,513	High income	Pacific	Medium
Niue	2	Unavailable	Upper Middle income	Pacific	Micro
Northern Mariana Islands	55	Unavailable	Upper Middle income	Pacific	Micro
Pakistan	197,016	4,855	Low income	SSWA	Large
Palau	22	15,119	Upper Middle income	Pacific	Micro
Papua New Guinea	8,251	3,878	Low income	Pacific	Medium
Philippines	104,918	7,237	Lower Middle Income	SEA	Large
Republic of Korea	50,982	35,298	High income	ENEA	Large

Country	Population*	GDP per capita**	ESCAP income groups	ESCAP sub-region	Population size group
Russian Federation	143,990	24,876	Upper Middle income	NCA	Large
Samoa	196	5914	Lower Middle Income	Pacific	Small
Singapore	5,709	81,224	High income	SEA	Medium
Solomon Islands	611	2,073	Low income	Pacific	Small
Sri Lanka	20,877	11,639	Lower Middle Income	SSWA	Medium
Tajikistan	8,921	2,763	Low income	NCA	Medium
Thailand	69,038	15,683	Lower Middle Income	SEA	Large
Timor-Leste	1,296	1,985	Low income	SEA	Medium
Tonga	108	5,327	Lower Middle Income	Pacific	Small
Turkey	80,745	23,757	Upper Middle income	SSWA	Large
Turkmenistan	5,758	15,648	Lower Middle Income	NCA	Medium
Tuvalu	11	3,385	Lower Middle Income	Pacific	Micro
Uzbekistan	31,911	6,116	Low income	NCA	
Vanuatu	276	2,857	Low income	Pacific	Small
Viet Nam	95,541	5,838	Low income	SEA	Large

ENEAS=East and North-East Asia

NCA=North and Central Asia

SEA=South-East Asia

SSWA= South and South-West Asia

*In thousands

**GDP per capita in 2016 (in 2011 PPP)

Table 2: Country participation in capacity screening exercise

Country	2013	2017
Afghanistan	Yes	Yes
American Samoa	Yes	Yes
Armenia	Yes	Yes
Australia	Yes	Yes
Azerbaijan	Yes	Yes
Bangladesh	Yes	Yes
Bhutan	Yes	Yes
Brunei Darussalam	Yes	Yes
Cambodia	Yes	Yes
China	Yes	Yes
Cook Islands	Yes	Yes
Democratic Peoples' Republic of Korea	No	No
Federated States of Micronesia	Yes	Yes
Fiji	Yes	Yes
French Polynesia	Yes	No
Georgia	Yes	Yes
Guam	Yes	Yes
Hong Kong, China	Yes	Yes
India	Yes	Yes
Indonesia	Yes	Yes
Iran (Islamic Republic of)	No	Yes
Japan	Yes	Yes
Kazakhstan	Yes	Yes
Kiribati	Yes	Yes
Kyrgyzstan	Yes	Yes
Lao Peoples' Democratic Republic	Yes	Yes
Macao, China	Yes	Yes
Malaysia	Yes	Yes
Maldives	Yes	Yes
Marshall Islands	Yes	Yes
Mongolia	Yes	Yes
Myanmar	No	Yes
Nauru	Yes	Yes
Nepal	Yes	Yes

Country	2013	2017
New Caledonia	Yes	No
New Zealand	Yes	Yes
Niue	Yes	Yes
Northern Mariana Islands	Yes	Yes
Pakistan	Yes	Yes
Palau	Yes	No
Papua New Guinea	Yes	Yes
Philippines	Yes	Yes
Republic of Korea	Yes	Yes
Russian Federation	Yes	Yes
Samoa	Yes	Yes
Singapore	Yes	Yes
Solomon Islands	Yes	No
Sri Lanka	No	Yes
Tajikistan	Yes	Yes
Thailand	Yes	Yes
Timor Leste	No	Yes
Tonga	Yes	No
Turkey	Yes	Yes
Turkmenistan	No	No
Tuvalu	Yes	Yes
Uzbekistan	No	No
Vanuatu	Yes	Yes
Viet Nam	Yes	Yes

Table 3: National agencies and focal persons (2017)

Country	Coordinating agency	Focal person
Afghanistan	Central Statistic Organization Line Ministries Central Bank	Eid Marjan Samoon
American Samoa	Department of Commerce, Statistics Division	Mine Timoteo
Armenia	National Statistical Service	Anant Safyan Member of the State Council of Statistics of the Republic of Armenia

Country	Coordinating agency	Focal person
Australia	Australian Bureau of Statistics	Jonathon Khoo, Director, Public Finance, Australian Bureau of Statistics
Azerbaijan	State Statistical Committee Central Bank Ministry of Finance Ministry of Taxes State Customs Committee	Nuru Suleymanov (NSO)
Bangladesh	Bureau of Statistics	Abul Kalam Azad Director
Bhutan	National Statistics Bureau	Birkha Gurung Planning Officer
Brunei Darussalam	Department of Economic Planning and Development	Nur Amani Haziqah Abdullah Yawang Acting Assistant Director of Statistics
Cambodia	National Institute of Statistics (NIS), Ministry of Planning	Khin Sovorlak Deputy Director General
China	National Bureau of Statistics of China	Yu Dou Program Officer in Department of Statistical Design and Management, NBS China
Cook Islands	National Bureau of Statistics	Veia Teipo
Democratic Peoples' Republic of Korea	Non-responding	
Federated States of Micronesia	FSM National Government - SBOC, Statistics Division	Sharon L. Pelep Deputy Assistant Secretary (and Economic Statistics Team Leader) Division of Statistics, Department of Resources and Development
Fiji	Bureau of Statistics	Bimlesh Krishna Chief Statistician - Economics Statistics.
French Polynesia	Non-responding	
Georgia	National Statistics Office	Nino Jakobia
Guam	Bureau of Statistics and Plans	Albert M. Perez Chief Economist
Hong Kong, China	Census and Statistics Department (C&SD), the Government of the Hong Kong Special Administrative Region	Rebecca SIU Assistant Commissioner

Country	Coordinating agency	Focal person
India	Central Statistics Office	G. S. Lakshmi Deputy Director General
Indonesia	BPS Statistics Indonesia	Dr. Adi Lumaksono, MA Deputy Chief Statistician for Production Statistics
Iran (Islamic Rep. of)	Statistical Centre of Iran	Ali Akbar Mahzoon Director General, Office of the Head, Public Relations and International Cooperation
Japan	International Statistical Affairs Division, Office of Director- General for Policy Planning on Statistical Standards, Ministry of Internal Affairs and Communications (MIC)	Naoki Makita Director for International Statistical Affairs, Office of Director-General for Policy Planning on Statistical Standards
Kazakhstan	Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan	Meyramova Diana Erkenovna Expert of the Office for International Statistical Cooperation
Kiribati	National Statistics Office Customs Finance	Tekena Tiroa (NSO)
Kyrgyzstan	National Statistical Committee of the Kyrgyz Republic	
Lao Peoples' Democratic Republic	Department of Economic statistics, Lao Statistic Bureau	Salika CHANTHALAVONG Chief of National Accounts
Macao, China	Statistics and Census Service	IEONG Meng Chao Director
Malaysia	Department of Statistics Malaysia	Fazrul Azlan Othman Director
Maldives	National Bureau of Statistics/ Ministry of Finance and Treasury	Aishath Shahuda Chief Statistician
Marshall Islands	Economic Policy, Planning and Statistics Office	Junior Peter Head of Economic Policy Strategic and Development Unit
Mongolia	National statistical office	Erdenesan Eldev-Ochir Director of Economic Statistics Department
Myanmar	Central Statistical Organization	Tin Nwe Nwe Tun Assistant Director
Nauru	Nauru Bureau of Statistics	Lindsay Thoma

Country	Coordinating agency	Focal person
		Statistical Officer
Nepal	Central Bureau of Statistics	Mahesh Chand Pradhan Director
New Caledonia	Non-responding	
New Zealand	Statistics New Zealand	Jeff Cope Principal Economic Statistician
Niue	Statistics Niue	Kimray VAHA Government Statistician
Northern Mariana Island	Central Statistics Division, Department of Commerce	Justin H. Andrew Director
Pakistan	Pakistan Bureau of Statistics	Dr. Bahrawar Jan Deputy Director
Palau	Non-responding	
Papua New Guinea	National Statistical Office	Henao Kari Acting Deputy National Statistician
Philippines	Philippines Statistics Authority	Benjamin Arsenio Y. Navarro Director, International Cooperation Unit
Republic of Korea	Statistics Korea	Yu Gyung Kang Director, Economic Statistics Planning Division, Statistics Korea
Russian Federation	Federal State Statistics Service (Rosstat)	Galina Albertovna Lyubova Deputy Head of the Department of Statistics of Foreign Countries and International Cooperation
Samoa	Samoa Bureau of Statistics	Allielua Salani Assistant Chief Executive Officer
Singapore	Department of Statistics	Suzanne Wong Deputy Director
Solomon Islands	Non-responding	
Sri Lanka	Department of Census and Statistics	D D G A Seneviratne Director
Tajikistan	Agency for Statistics under the President of the Republic of Tajikistan	Hasanzoda Gulnora Kenja

Country	Coordinating agency	Focal person
		Director of the Agency for Statistics under the President of the Republic of Tajikistan
Thailand	National Statistical Office	Suphanida Satjasai Statistician, practitioner level
Timor-Leste	General Directorate of Statistics	Cristino Gusmao National Director
Tonga	Non-responding	
Turkey	Turkish Statistical Institute (TURKSTAT)	Tülay Korkmaz Head of National Accounts Department
Turkmenistan	Non-responding	
Tuvalu	Central Statistics Office	Angus Amasone
Uzbekistan	Non-responding	
Vanuatu	National Statistics Office	Ben Tokal, Senior Statistician Economics
Viet Nam	General Statistics Office	Pham Quang Vinh Deputy Director General

Table 4: Average number of Core Set items produced by income grouping, 2017 (n=50)

Income grouping	Number of countries	Average number of Core Set items	Percentage of total Core Set item
ESCAP low income	15	21	67%
ESCAP lower middle income	15	21	67%
ESCAP upper middle income	11	18	59%
ESCAP high income	9	26	84%
Total	50	21	68%

Table 5: Average number of Core Set items produced by sub-region, 2017 (n=50)

Sub-region	Number of countries	Average number of Core Set items	Percentage of total Core Set item
East and North-East Asia	6	28	89%
North and Central Asia	7	28	90%
Pacific	16	15	47%
South-East Asia	11	24	78%
South and South-West Asia	10	19	63%
Total	50	21	68%

Table 6: Production of Core Set items by population size grouping, 2017, percentage of countries (n=50)

	Percentage	Micro	Small	Medium	Large	Regional average
Prices and Costs						
5.1.1	Consumer Price Index	100%	100%	100%	100%	100%
5.1.2	Producer Price Index	0%	30%	82%	88%	62%
5.1.3	Commodity Price Index	0%	0%	41%	75%	38%
5.1.4	External merchandise trade price indices	0%	30%	59%	81%	52%
5.1.5	Wages/earnings data	57%	70%	82%	88%	78%
5.1.6	Labour costs/Wage index	0%	10%	65%	63%	44%
	Demand and Output					

	Percentage	Micro	Small	Medium	Large	Regional average
5.2.1	GDP (production) nominal and real	100%	100%	94%	100%	98%
5.2.2	GDP (expenditure) nominal and real	29%	80%	88%	100%	82%
5.2.3	External trade - merchandise	86%	100%	94%	100%	96%
5.2.4	External trade - services	14%	80%	88%	100%	80%
5.2.5	Short-term indicator (STI) - industry output	0%	40%	82%	94%	66%
5.2.6	STI - services output	0%	30%	71%	88%	58%
5.2.7	STI - consumer demand	0%	30%	53%	75%	48%
5.2.8	STI - fixed investment	0%	40%	71%	88%	60%
5.2.9	STI - inventories	0%	40%	65%	69%	52%
5.2.10	Economy structure statistics	14%	50%	82%	81%	66%
5.2.11	Productivity	0%	20%	71%	81%	54%
Income and Wealth						
5.3.1	Integrated national accounts for the total economy	29%	40%	77%	88%	66%
5.3.2	Institutional sector accounts	14%	10%	47%	75%	44%
5.3.3	Balance of payments (BOP)	71%	90%	88%	100%	90%
5.3.4	International investment position (IIP)	14%	60%	88%	81%	70%
5.3.5	External debt	29%	80%	82%	88%	76%
5.3.6	Income distribution	0%	60%	71%	88%	64%
Money, Labour, Government and Resources						
5.4.1	Assets / liabilities of depository corporations	43%	80%	82%	81%	76%
5.4.2	Broad money and credit aggregates	29%	70%	82%	81%	72%
5.4.3	Interest rate statistics	29%	80%	82%	88%	76%
5.5.1	General government operations	86%	100%	88%	88%	90%
5.5.2	General government debt	71%	90%	82%	94%	86%
5.6.1	Labour supply and	14%	50%	65%	81%	60%

	Percentage	Micro	Small	Medium	Large	Regional average
	demand					
5.6.2	Hours worked	29%	70	65%	100%	72%
5.7.1	Natural resources and environment	0%	30%	35%	50%	34%

Appendix: II

Regression formulas and alternative specifications

Final regression equation, in general terms:

$$\beta_1 * \ln(\text{Population in Tsd.}) + \beta_2 * \ln(\text{GDP per Capita}) + \beta_3 * (\text{North and central Asia}) + \beta_0$$

Plugging in the regression results gives this as the final equation:

$$2.05 * \ln(\text{Population in Tsd.}) + 2.13 * \ln(\text{GDP per Capita}) + 6.2 * (\text{North and Central Asia}) - 28.8$$

Table 7: Alternative specifications

	<i>Dependent variable</i> Linear regression model	<i>Dependent variable</i> Negative-Binomial/ Count model
	Number of produced Core Set items	Number of produced Core Set items
Population in thousand (ln)	2.05*** (0.2)	0.19*** (0.34)
GDP per capita (ln)	2.13*** (0.53)	1.4e-05*** (3.4e-06)
North and Central Asia	6.4* (2.91)	0.60*** (0.15)
Pacific	-4.01 (2.84)	
South-East Asia	-0.97 (2.62)	
South and South- West Asia	-4.28 (2.94)	
Constant	-38.7*** (9.10)	-0.47
Observations	46	46
Adjusted R ²	0.779	?
Res. Std. Error	4.668 (df = 39)	?
F Statistic	27.451 *** (df = 6; 39)	?
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01	

Given the regression results and the significant effects of population size on the number of produced Core Set items across models, the most meaningful way of displaying the survey responses is by population. Unless the set of questions refers to receiving technical or other sorts of assistance, which is strongly correlated with the countries income group rather than population size.

Data structure and sources

The dependent variable of the regression is the number of Core Set items that a country produces according to the submitted Capacity Screening survey from 2017. In the survey the National Focal Points (NFP) were asked to indicate how frequently the different metrics were produced and published. If an item is being produced regardless if it meets ESCAP's recommended frequency or not it was counted as being produced and counted to the number of produced Core Set items. Then the number of produced Core Set items was aggregated for every country. The number of produced Core Set items ranged from five to 31. In average a country produced 26 Core Set items.

The first independent variable is the natural logarithm of the population size in thousands in 2017. The population sizes range between 2 thousand and 1.4 billion (Table 2) therefore taking the natural logarithm is necessary, in order to decrease the residuals and linearize the relationship between population and number of produced Core Set items. Half of the countries have a population of less than six million people, which shows that the distribution is extremely skewed as a result of containing many smaller countries. This data and the regional groupings were accessed through the ESCAP Statistical Database (ESCAP 2018).

The next independent variable is the natural logarithm of the GDP per capita in current USD. The source of this data was the World Bank database (World Bank 2018). The GDP per capita ranges from 562\$ and 74.017\$. The GDP per capita is less dispersed than the population, with the two thirds of the countries with a GDP per capita of less than 15 thousand and most countries concentrated around 10 thousand USD. A dummy variable indicating if a country is from North and Central Asia, was included. The analyzed data comprises 46 observations, which is the number of countries that participated in both survey rounds.

Country	Constant	Population	GDP	North and Central Asia	Prediction
Afghanistan	-28.77	35.72	13.49	0	20.45
American Samoa	-28.77	22.47	19.99	0	13.68
Armenia	-28.77	30.60	17.46	6.20	25.49
Australia	-28.77	34.96	23.05	0	29.24
Azerbaijan	-28.77	33.08	17.61	6.20	28.12
Bangladesh	-28.77	38.88	15.38	0	25.48
Bhutan	-28.77	27.95	16.90	0	16.08
Brunei Darussalam	-28.77	26.65	21.74	0	19.62
Cambodia	-28.77	34.09	15.23	0	20.55
China	-28.77	43.29	19.19	0	33.70
Cook Islands	-28.77	20.02	21.55	0	12.80
Democratic Peoples' Republic of Korea	-28.77	35.04	#N/A	0	#N/A
Fiji	-28.77	28.19	18.25	0	17.67
French Polynesia	-28.77	25.79	#N/A	0	#N/A
Georgia	-28.77	31.19	17.61	6.20	26.22
Guam	-28.77	24.67	22.33	0	18.24
Hong Kong, China	-28.77	32.49	22.78	0	26.50
India	-28.77	43.18	15.87	0	30.28
Indonesia	-28.77	39.85	17.44	0	28.51
Iran (Islamic Rep. of)	-28.77	37.42	18.25	0	#N/A
Japan	-28.77	38.35	22.53	0	32.11
Kazakhstan	-28.77	34.35	19.08	6.20	30.85
Kiribati	-28.77	23.96	15.71	0	10.90
Kyrgyzstan	-28.77	32.09	14.88	6.20	24.39
Lao Peoples' Democratic Republic	-28.77	32.34	16.53	0	20.11
Macao, China	-28.77	27.42	23.90	0	22.54
Malaysia	-28.77	35.49	19.52	0	26.24
Maldives	-28.77	26.68	19.61	0	17.51
Marshall Islands	-28.77	22.35	17.49	0	11.07
Federated States of Micronesia	-28.77	23.78	17.17	0	12.17
Mongolia	-28.77	30.70	17.51	0	19.43
Myanmar	-28.77	36.56	15.10	0	#N/A
Nauru	-28.77	19.12	19.11	0	9.46
Nepal	-28.77	35.33	14.05	0	20.61

Country	Constant	Population	GDP	North and Central Asia	Prediction
New Caledonia	-28.77	25.74	#N/A	0	#N/A
New Zealand	-28.77	31.57	22.56	0	25.35
Niue	-28.77	15.62	20.18	0	7.03
Northern Mariana Islands	-28.77	22.43	21.37	0	15.02
Pakistan	-28.77	39.24	15.51	0	25.98
Palau	-28.77	20.55	20.41	0	#N/A
Papua New Guinea	-28.77	32.72	16.68	0	20.63
Philippines	-28.77	37.95	17.03	0	26.21
Republic of Korea	-28.77	36.47	21.79	0	29.48
Russian Federation	-28.77	38.60	19.35	6.20	35.37
Samoa	-28.77	25.04	17.69	0	13.96
Singapore	-28.77	31.97	23.19	0	26.38
Solomon Islands	-28.77	27.38	16.21	0	#N/A
Sri Lanka	-28.77	34.63	17.59	0	#N/A
Tajikistan	-28.77	32.88	14.24	6.20	24.55
Thailand	-28.77	37.09	18.51	0	26.83
Timor-Leste	-28.77	28.92	15.45	0	#N/A
Tonga	-28.77	23.81	17.54	0	#N/A
Turkey	-28.77	37.41	19.81	0	28.45
Turkmenistan	-28.77	31.99	18.68	6.20	#N/A
Tuvalu	-28.77	19.12	17.12	0	7.47
Uzbekistan	-28.77	35.50	16.32	6.20	#N/A
Vanuatu	-28.77	25.74	16.96	0	13.93
Viet Nam	-28.77	37.76	16.38	0	25.36