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A SYSTEM OF TOURISM STATISTICS: SCOPE AND CONTENT

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Foreword: The term *"System of tourism statistics"* (STS) appears, for the first time, in point 1.21 of "Introduction" to the "Tourism Satellite Account (TSA): Methodological References" (1) when mentioning that apart from being a new statistical instrument, the TSA must be analysed as "a building process to guide countries in the development of their own system of tourism statistics, the main objective being the completion of the TSA, which could be viewed as a synthesis of such a system".

Nevertheless, a full definition, with this or any other similar wording, does not appear in this document or in other documents previously published by the World Tourism Organization (WTO). It must be remembered that in the "Recommendations on Tourism Statistics" (2), under Section 7 "The need for tourism statistics", it was indicated that "some countries and industries have already established a wide and diverse range of tourism data sources, with varying concepts and definitions to meet these needs, while other- countries have not yet developed significant *statistical systems for tourism"*.

Moreover, further to the approval of these Recommendations by the United Nations Statistical Commission (UNSC), it was stressed, in relation to the United States of America, that the term *tourism statistical system* (3), as used in that study, relates to "the set of data collection programs that encompass all three forms of tourism to, from and within the U.S. and provide measures of visitors" volume and expenditure, as well as the characteristics of the trips and visitors. Some of the data required for the system to be comprehensive are supplied by agencies in other countries".

This lack of definition is due to the fact that the process followed until now in relation to the development of tourism statistics is recent, and also because the corresponding development of the statistical infrastructure has not allowed in many cases to go further into the creation of a rigorous conceptual framework in this area of statistics.

I. INTRODUCTION

The National Statistical System (NSS) encompasses a series of statistical functions that correspond to a group of bodies that conduct statistical work. The coverage and extension of these systems at any given time can be ascribed to a series of elements, such as:

- the organization and legal structure of the institutional units that produce statistics (mostly public)
- the administrative mechanisms and legally established links between these and the Central Unit
- the statutory or non-statutory nature of certain statistical sources and administrative controls which generate information that is liable to be used for statistical purposes
- the human and material resources assigned to statistical tasks in these producing units.

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The overall aim of the NSS is to provide users with reliable, consistent and appropriate statistical data relative to the country's socio-economic structures and developments, at different territorial levels, and which is geared to international comparisons with the results obtained in the different countries. To this end, the NSS must include, in addition to all the statistical sources existing at a given time, other methodological and instrumental elements that are necessary for its development.

Both on account of its aim and content, the NSS must therefore reconcile statistical information systems at the various state, infra-state and internacional levels, through appropriate coordination and integration, to which end a centralizing body must be set up.

For the purposes of this task **reconciliation** is taken to mean the controlling activity that makes it possible to ensure that a particular process meets the purpose assigned to it within the overall System; **coordination** is taken to mean the function that serves to balance statistical programmes from the twofold standpoint of activities and projects, finally, **integration** is a function geared to ensuring the connection and assembly of the different statistical products.

From the perspective of this document, the following aspects should be highlighted with regard to the integration function: **instrumental elements** (international concepts, definitions, classifications and standards) on the one hand, and **integrated statistical information systems** (systems of national accounts and socio-demographic statistical systems) on the other.

Of the two, the System of National Accounts (SNA) is doubtless the most developed. In this respect, it would be desirable for a greater balance to be achieved between the two systems in the future, insofar as they are interrelated through certain concepts, definitions and classifications, and to some extent, because the separation of economic and social statistics is in part conventional since many statistical variables are at the same time of an economic and social nature, or affect both economic and social issues without distinction.

It is perhaps worth highlighting that beyond the obvious fact that the number and type of available functions condition the level of development of integrated systems, a reciprocal relationship also exists since integrated systems require a consistency and rigour in the preparation of basic statistics, providing the conceptual framework required to design the instrumental elements of the integration: definitions and classifications.

Consequently, integrated systems (applied by virtue of the corresponding international standards) become the centre of gravity for statistical work in all areas (4).

It is on the basis of this approach that a System of Tourism Statistics (STS) should be understood, i.e. as that part of the National Statistical System whose aim is to provide the user with reliable, consistent and appropriate statistical information on the socio-economic structure and developments of the tourism phenomenon, and which can in turn be integrated with all the other economic and social statistics, at different territorial levels (state, infra-state and international).

II. THE STRUCTURE OF THE SYSTEM OF TOURISM STATISTICS (STS): GENERAL OVERVIEW

II.1. Elements

As with the comments relative to the National Statistical System, the content of the STS is structured on the basis of the following elements:

- statistical sources
- methodological references
- instrumental means available

Taken together, we will call these three elements **statistical operations** insofar as they all denote a set of activities which are of a statistical nature (5); consequently, we will consider as part of the STS not only those operations that stem from the collection of individual data and lead to the presentation of aggregate results in the form of tables or indexes, but also the many others that are either necessary for the implementation of these operations, or without which the overall information required to analyse tourism activity could not tackled with the necessary rigour.

The statistical operations thus considered can be **classified** on the basis of diverse criteria:

- the existence or non-existence of individual data-capture
- the method used to obtain the primary data on the basis of which statistics are prepared (direct data capture or use of administrative registers and documents)
- the degree of exhaustiveness in data collection
- the vehicle for and form of accessing information
- other instrumental elements related to the statistical infrastructure per se.

By combining these criteria, **different types of statistical operations** can be identified:

1. related to statistical methodology:

- basic concepts of tourism statistics (those contained in the Recommendations on Tourism-Statistics, 1993)
- classifications (of tourism products and activities such as the "Standard International Classification of Tourism Activities –SICTA–" and the "List of Specific Tourism Products - STP") Tourism Activities - SICTA -" and the "List of Specific Tourism Products - STP") methods and procedures (statistical and computer) to improve statistical production (nomenclators, use of "geographical information systems" - GIS -, etc.)

2. related to information sources:

- statistics derived from surveys (such as surveys of overnight stays, travel surveys, structure of tourism enterprises, etc.)
- statistics derived from a register or which have their source in administrative processes (such as the

information generated by the air-traffic regulation authorities)

- censuses or directories (such as the list of collective accommodation establishments)

- statistical syntheses (such as national accounting systems, input-output tables and the Balance of Payments)

3. related to the storage and dissemination of the data obtained:

- databases (with final results from one or various statistical sources)

- publications (with a particularly numerical content in relation to tourism activity and which may incorporate quantitative data from various sources e.g. statistical sources per se, econometric forecasts, mark research studies, etc.).

II.2. Focus

The development of the STS in the various countries is presently exclusively geared –barring possible exceptions I am unaware of– to the economic analysis of tourism activity where non-monetary indicators hold pride of place and are therefore used by different types of agents for their respective focuses (whether macro and microeconomic, for the purpose of designing tourism products, marketing, etc.). However, besides being a particularly relevant factor in relation to the generation of jobs, public resources and local development, tourism also has a destructive impact on the environment.

Some countries and international organizations are already aware that we cannot continue to turn a blind eye to the fact that tourism activities can cause considerable damage to the environment as a result of the pressure to which they subject it (as a result both of specific types of flows –emissions, use of raw materials, etc.– and of specific types of infrastructures) and the qualitative change which is taking place in this respect and which translates into an alteration of original environmental conditions.

But it is not just the environment that is at stake; other tourism resources, such as the artistic and cultural heritage, are also under threat.

In all these cases, there is a **growing demand for the design** of a *complementary statistical approach* which generates indicators that can contribute to identifying these types of pressure, stemming from the premise that we are dealing with a set of resources with similar characteristics (among which attention should be drawn to their singularity, vulnerability and exploitation at levels that can cause them to be damaged or even to disappear).

II.3 Design

WTO has played an important guiding role in the design of the STS. Indeed, the International Conference on Travel and Tourism Statistics held on 24-28 June 1991 in Ottawa (Canada) and the subsequent publication of the Recommendations on Tourism Statistics in 1993 have made en overriding contribution to STS development.

These Recommendations are the first example of international standardization relative to tourism statistics and emphasize their importance insofar as they define concepts and include basic classifications for their subsequent operationalization.

In the past, the World Tourism Organization (WTO) has also contributed to the development of tourism statistics through the preparation of technical manuals on (1) Concepts, definitions and classifications, (2) Tourism expenditure, (3) Domestic tourism, (4) Collection and compilation of tourism statistics, and also by providing countries with technical assistance and by disseminating the aforementioned Recommendations.

More recently, with the approval of the United Nations Statistical Commission of the draft Tourism Satellite Account (TSA), a new international standard has become available, providing a new statistical instrument whose operational character is a synthesis shared in common with National Accounts,

This long work process, was aimed at four objectives:

- to promote a better knowledge of tourism and, more specifically, the quantification of its economic impacts;
- to contribute to the development of international statistical standards as a support to the design of relevant policy perspectives and commitments, through the proposal of appropriate recommendations;
- to direct members to their gradual implementation presenting general guidelines for it;
- to support this development through technical cooperation with WTO Member states.

Although it is not the competence of WTO to determine the procedures used to develop the recommendations approved, I consider it to be of interest to highlight the great usefulness of designing the STS, using the present economic focus, from a unitary perspective.

Generally speaking, STS development is understood as the greater or lesser number of statistical operations available, this is a useful approach for defining feasibility studies insofar as it is very important to ascertain whether the level of statistical information is sufficiently broad in scope to go about measuring the economic impacts of tourism.

This focus should be rounded off with a methodological approach geared to formulating action proposals relative to ways and means of developing an STS with this goal in mind (to which end, the conceptual framework used for the design of the TSA should be borne in mind),

From this standpoint, the following methodological outline could be useful (6):

a) a definition of the ***general aim***, using a statement sufficiently broad in scope, e.g. ***the creation of those statistical indicators that make it possible to quantify the economic impacts of tourism at national level.*** Since, any approach to the tourism phenomenon

must necessarily stem from the perspective of demand, the main focus of attention should therefore be travel by persons outside their usual residence for the following purposes:

1. Leisure, recreation and holidays
2. Visiting friends and relatives
3. Business and professional
4. Health treatments
5. Religion / pilgrimages
6. Other reasons

b) Since these trips translate into the use of a set of elements without whose existence or concurrence they could not be made (or-could not at least have taken place with the same intensity), it can be said, using the analysis of productive structures by way of comparison, that it is necessary to identify the nature of those ***elements or factors*** without whose concurrence it is not possible to obtain the corresponding output (in our case, trips by people) and that, by the same token, it is not by increasing them that this output would necessarily be increased (or at least, not necessarily in an efficient manner).

c) Among these *factors,* it is necessary to identify tourism resources (nature, heritage structures, etc.), tourism infrastructure (hotels, restaurants, facilities, computer equipment), tourism enterprises, the work force associated with the tourism industries and, finally, the maintenance and conservation of these resources and infrastructures. On the other hand, steps should be taken to identify ***other types of factors associated with organization and management,*** which would include public bodies, public-private cooperation projects and non-profit organizations, assistance programmes and other factors not mentioned above.

d) Finally, there are other factors which should be considered as fixed and/or unconnected with the achievement of this aim; more specifically, even though (their impact **is** relevant in this respect, their modification would only be possible from a long-term perspective; basically, these factors are tied in with *the* **institutional framework** which, in a broad sense, we have associated with the level of a country's statistical infrastructure.

Barring exceptions, an approach of this type has never been used for STS design and therefore does not tend to have any general focus. Conversely, the number of statistical operations associated with tourism has been gradually extending to meet specific demands but not on the basis of a general approach designed by a centralizing body. There are various reasons for this, among which the following should perhaps be highlighted:

– the traditional divorce, in all too many cases, between the national tourism administration and national statistical offices

- the horizontal nature of tourism, activity
- the fact that statistical operations are costly and take a considerably long time to mature
- the exceptional fact that the sources of information generated by other units which are not national statistical offices are of a statistical nature
- etc.

Consequently, for one reason or another, the truth of the matter is that the gaps which exist in this respect can often be ascribed to the absence of a technical body with the necessary human and material resources, and with specific competence to undertake the design and implementation of a statistical creation and coordination project in the field of tourism.

II.4. Results

The aim of the overall results derived from an STS would be to ***improve our knowledge of reality,*** which is what it attempts to represent and measure. This is for various ***purposes:***

a) To ***facilitate*** the taking of more suitable decisions on the part of the various social agents. Although it is true that there are many instances, both in public and private management, in which the taking of decisions cannot be delayed until the results of rigorous research studies become available, it is equally true that only a broad and continuos flow of periodical statistical information can engender a knowledge of reality, an opinion of what is going on and why, and, equally important, ways and means of endorsing, justifying and contrasting the measures that need to be adopted.

b) To **facilitate** international comparisons, which, in many cases, are of a regulatory nature and must therefore be performed.

c) To **facilitate** research in the different fields.

To this end, the results should meet a series of requirements, e.g.:

- they must be reliable and represent the part of reality they claim to represent (i.e. they must not diverge from it to any great degree)
- they must be produced promptly and swiftly if the aim is not just to provide statistics for historical and research purposes, but rather to contribute to the management and decision-making process
- They should be produced on a regular basis, that is, not only as one-time estimations, but as on-going statistical processes, combining the compilation of benchmark estimations with more flexible uses on indicators to enhance the usefulness of the results
- Data should be comparable over time within the same country, comparable among countries, an comparable with other fields of economic activities
- Data should be internally consistent and

presented within macro-economic frameworks recognized at the international level

– Both the results obtained and the manner used to prepare them should be accessible to all users: i.e. the principle of neutrality must be applicable in this respect (**7**).

Not all STS results are expressed in monetary terms. Indeed, in the vast majority of countries, the results expressed in monetary terms are limited in scope and mainly concern:

- total tourist expenditure per visitor category, classified on the basis of the following functional categories: travel, holidays and package tours; accommodation; food and drink; transport leisure, cultural and sports activities; purchases; others

- foreign currency receipts generated by inbound tourism and, secondarily, foreign currency expenditure by outbound tourists

- production accounts of activities traditionally considered to be tourism activities: international transport; hotels, cafés, restaurants; travel agencies.

Conversely, non-monetary indicators are those with a more long-standing tradition in the field of tourism statistics and are consequently more numerous:

- from the standpoint of demand: number of travellers according to their demographic- characteristics, the origin and destination of the trip, the principle form of transport used, length of stay, purpose of visit, etc.

- from the standpoint of supply: number of accommodation units by characteristics; number of arrivals and number of overnight stays; for countries where access by non-residents is mainly by air: number of flights, number of seats available, load factor; indicators of frequancy of the sites visited, etc.

- employment in what are traditionally considered to be tourism activities: international transport; hotels, cafés and restaurants; travel agencies.

Nowadays, these indicators are generally presented as a collection of data, without any conceptual or formal link. Some of them are generated by administrative sources (particularly border police in the case of data relative to entries and departures), while others are generated on the basis of statistical operations designed for this purpose (8).

II.5. Users

Tourism, describes as the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for purposes not related to the exercise of an activity remunerated from within the place visited, is an activity which has grown substantially over the last quarter of this century as an economic and social phenomenon. Statistical information on the nature, progress and consequences of tourism is mainly based on arrivals and overnight stay statistics as well as

Balance of Payments information which do not grasp the whole economic phenomenon of tourism. Consequently, governments, businesses and citizens do not receive the accurate information necessary for effective public policies and efficient business and operations Valid information on the role tourism plays in national economies throughout the world is particularly deficient, and credible data concerning the scale and significance of tourism is needed.

As of today, the type of data on tourism required both by the public and the private sector has changed in nature. Besides quantitative information on the flow of visitors (such as arrivals and overnights) and the descriptive informations on the conditions in which they are received and served, countries now need robust information and indicators to enhance the credibility of the measurements concerning the economic importance of tourism (9).

Generally speaking, STS's generate information relative to different spheres of analysis(10):

- general tourism activity at national level. This is the most traditional approach and is obviously of a macroeconomic nature, the most regular sources of information in all countries being the Balance of Payments and registers of arrivals of non-resident visitors

- activity in the three tourism segments (domestic, inbound and outbound). Travel surveys designed specifically for this purpose are usually the main source of information in this respect.

- activity of tourism enterprises and/or establishments. Broadly speaking, the aim is to reflect the gross business characteristics of tourism enterprises; normally, information is available in this respect and is generated in microeconomic type programmes conducted by national statistical offices, but needs to be customized in an appropriate way.

- follow-up and/or design of tourism products. The statistical information is to a large extent generated by the actual demand surveys.

Possible users of the information generated by the STS correspond to a very varied typology:

- the central administration. Besides the national statistical office, the tourism administration and central bank –insofar as it prepares the Balance of Payments in most countries– (these being the three basic agents that produce the statistics for the STS), there are also other bodies responsible-for the creation and maintenance of transport infrastructure, the regulation of the various forms of passenger traffic, industrial relations, etc.

- the regional administration, which in many cases has specific competences relative to various areas of tourism development

- units responsible for tourism promotion

- business associations and sector unions

- enterprises that provide tourism activities
- specialized consultancy firms
- institutional investors
- university departments, etc.

These units use the results obtained for specific purposes insofar as their institutional aims diverge; some of them, in addition to being users, are also units that produce information. The following list therefore represents a fairly habitual picture of this combination of situations among the various tourism agents:

1. NTO (also provincial, regional or local tourism offices)
   - overall responsibility for tourism economic, social development and accountability within geographic region,
   - promoting the country or destination in appropriate markets,
   - national strategy and policy development,
   - business services research,
   - aiding industry development,
   - aiding product development
2. NSO (National Statistical Offices) (also provincial, regional and sometimes local statistical offices)
   - gathering, processing and organizing data,
   - standards for data collection and analysis,
   - developing analytical tools,
   - encouraging consensuses on data collection priorities,
   - disseminating data and information.
3. Associations (International, regional, local; sub-sector specific, generic)
   - encouraging consensuses on industry issues and interests,
   - disseminating information
   - advocacy of collective interests
4. Enterprises (multinationals, nationals, local enterprise, local establishment)
   - maximize returns and profits
   - minimize costs and losses
   - increase shareholder value
   - increase leverage and assets

II.6. International comparability of results

Among other competences, WTO is responsible for proposing to the United Nations international standards for tourism statistics with a view to facilitating international comparability of the results

generated through the application of the recommendations approved: this is the case of the Recommendations on Tourism Statistics of 1993, and the more recent (March 2000) recommendations relative to the Tourism Satellite Account. Moreover, WTO regularly asks countries for sets of results, these- being what form the basis of comparable information.

International comparability is an aim in itself and one which needs to be achieved on a gradual basis for reasons that may appear obvious but are perhaps worth specifying nonetheless:

- because it requires the prior establishment of specific recommendations relative to the concepts, definitions and classifications required to structure the frame of reference for the corresponding System of Tourism Statistics

- because countries have unequal levels of statistical infrastructure, as a result of which it would be unrealistic to expect the pace at which these recommendations are introduced and the actual coverage of those applied to be uniform.

- and also because the specific operationalization of these concepts and definitions by each country can condition, a posteriori, the credibility of the corresponding comparison.

Consequently, on considering the level reached in the international comparability of basic tourism statistics, the development of each national STS provides an initial benchmark for analysing the extent of the progress hitherto made in this field. Both WTO and EUROSTAT (11) have published exercises in this respect, based on conventional measures such as the sending out of structured questionnaires to be filled in by the respondent and on the basis of which it is possible to identify the general features of those statistical operations used to estimate these concepts and definitions.

For this type of exercise - this at least is how the WTO exercise was designed- specific information on the statistical approach used to estimate the corresponding variables is not generally collected. Both an analysis of the questionnaires used in these, operations and the procedures used to break down and record the information captured, the actual generation of results, etc. would make it possible to go one step further and would doubtless serve to underline relevant differences regarding the way in which the concepts and definitions that form part of international standards are operationalized.

WTO has launched a process of internal reflection on how to develop a more active role in this field, both in relation to the specific tourism operations that are essential for analysing tourism activity –as is the case with the demand surveys used to quantify the -characteristics of the three forms of tourism (domestic, inbound and outbound (12)– and in relation to the reception and subsequent dissemination of their results and those of other operations that the various countries submit to the Organization on a regular basis.

NOTES

(1) Document approved by the United Nations Statistical Commission, New York, USA, 29 February-3 March 2000

(2) WTO-UN Recommendations on Tourism Statistics, Statistical papers. Series M No 83, New York 1993.

(3) Implications of the UN-WTO Tourism Definitions for the U.S. Tourism Statistical System (WTO, 1996).

(4) For general reference, see "Integration of statistical information: instrumental elements and integrated systems". José Quevedo Quevedo – Tenth Inter-American Conference on Statistics. Aguascalientes. Mexico. November 1990.

(5) In other words, these activities are characterized by the capture, processing, sorting and dissemination of a set of structure data for a specific purpose, and which conform to minimum conditions of rigour in these phases of their implementation.

(6) For a more general reference, see the System of statistical indicators for analysing the economy of tourism (SINTUR): programme of work presented by the Instituto de Estudios Turísticos for the period 1998-2000. Working document ne 15. Madrid. November 1997.

(7) This and other aspects are referred in the "Fundamental Principles of Official Statistics". United Nations, New York 1994.

(8) For a more general reference, see "Les Comptes Satellites du Tourisme: Une proposition de l'Organisation mondiale du tourisme pour intégrer l'analyse du tourisme dans le cadre de la Comptabilité Nationale". Communication presented by Mrs Marion Libreros (WTO expert) to the "Association Française de Comptables Nationaux". Paris, January 2000.

(9) For a more general reference, see "Tourism Satellite Account (TSA): Methodological References", as approved by the United Nations Statistical Commission, New York, USA, 29 February-3 March 2000.

(10) Canada has generated various studies on the usefulness of the enormous amount of information generated by the STS for the different users. A complete and updated example is "A research and development program for improved tourism industry decision making". Technical paper by the Canadian Tourism Commission. November 1999.

(11) WTO Methodological Supplement to world tourism statistics Nice, France, 1999 and EUROSTAT "Progress Report on methodological developments in the EEA countries of tourism statistics following the implementation of the Council Directive 95/57/EC. July 1999.

(12) WTO-UN Recommendations on Tourism Statistics, Statistical papers. Series M No 83, New York 1993, para. 11.