Methodological Note:
Incorporating Nature in the
Tourism Satellite Accounts

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Egypt is making plans to begin implementing tourism satellite accounts (TSAs) in the upcoming year. Because of the importance of the environment in Egyptian tourism, and the growing interest in environmental protection in general, incorporating information about nature-based tourism in the new TSA would be an efficient way to address two important issues at the same time. It may also prove to be a useful way to launch later work on broader development of environmental accounts.

This note discusses some technical issues that must be resolved in order to integrate environmental concerns into the TSA.

WHAT DO WE MEAN BY NATURE-BASED TOURISM?

A number of different terms are used to refer to tourism that depends on the environment. These include ecotourism, nature tourism, nature-based tourism, sustainable tourism, environmentally sustainable travel, ecotravel, adventure tourism, and so on. Among those in the industry, the precise definitions of these terms are a matter of considerable debate. Without venturing into that debate here, it is useful to suggest that the TSAs may be used to capture data about several different kinds of tourism, if the survey questions are designed carefully and efficiently. Rather than taking a stand on the definitions and designing the TSA to capture only a single one, it is preferable to design flexible questions that can be used to capture information about several kind of tourism, so that the data underlying the TSA will be of use to people with many different interests.

The design suggestions below aim to gather information about the following type of nature-related tourist activity (note that the labels used are not agreed-upon definitions; they simply appear to be clear in non-technical English):

Nature tourism. This category includes all travel and tourism that depends on the environment. It is the most inclusive category. It includes going to the beach or the desert, traveling in a pleasure boat, water-based sports such as fishing, diving, or wind-surfing, and so on. Some degree of environmental quality is needed to make it pleasant, but it does not necessarily require a truly pristine environment.

Reef-based tourism. This category is a small subset of nature tourism. It includes snorkeling and diving as a primary purpose of the visit. It depends on the coral reefs being in good condition.

Desert-based tourism. This category is also a small subset of nature tourism. It includes trips into the desert to experience its pristine and remote ecosystems. It depends on those ecosystems existing in their natural state and being only lightly visited.

Biodiversity-based tourism. This category combined reef-based tourism and desert-based tourism.

Sports-based tourism. This category is also a small subset of nature tourism. It captures those who come to Egypt to use the natural environment for sporting purposes, notably fishing and boating. It requires the water quality to be reasonably good, but does not call for pristine coral reefs. While demand for information about this category in particularly has not yet been identified, the data structure proposed below makes it easy to identify, so it is worth flagging.

Low-impact tourist facilities. This is a feature of installations that supply services to tourist, not of the tourist activity itself. Low-impact facilities, which include so-called "eco-lodges," are hotels and tourist communities designed to minimize impact on the environment, encourage appreciation of the environment rather than the facilities of the hotel or community, and allow for small scale and dispersed rather than dense tourism. The exact definition of what constitutes a low-impact facilities would have to be determined; it would certainly include features related to architecture, site planning, water management, energy management, urban design, land use, infrastructure design, and so on.

Where information about the first three categories is likely to be captured from surveys of travelers, information about low-impact facilities is more likely to be captured through surveys of the supply side of the industry, particularly hotels.

Note that I do not suggest a category for ecotourism. The common definitions of ecotourism are quite restrictive, limiting it to travel that is biodiversity based, culture based, provides economic return to

local businesses rather than national or international, is in compliance with national and international codes regarding labor and human rights, and so on. The tourism accounts are too broad-based a tool to gather information that precise, although surveys used to gather such information might at the same time provide data of use to the accounts, or might be analyzed in conjunction with data from the accounts.

These categories should provide enough information to do several things:

1.   Identify the total contribution of nature-based activity to the Egyptian economy. This is a major policy aim of integrating the environment into the TSA; it should make it possible to argue that the economy benefits greatly from environment-based tourism, so investments in coastal water quality are justified in economic terms.

2.   Identify the expenditures by users who are particularly interested in biodiversity. This is a major USAID interest, because the U.S. government is concerned with protecting reef and desert biodiversity and would like to be able to demonstrate that such protection pays off through tourism. USAID may choose to aggregate the reef and coral data into a single biodiversity category to present information. However the structure of the questions suggested below makes it possible to track the two activities separately if desired.

TYPES OF TOURISM

This discussion has been driven by an interest in nature-based tourism and biodiversity-based tourism. However, rather than focusing only on those two activities, we can use the inbound expenditure survey to gather broader data for the TSAs or for other purposes. The current CAPMAS/Ministry of Tourism survey and the recommended WTO survey both include questions about the primary purpose of travel and about activities of the tourists. This information can be used to organize survey results according to a variety of types of tourism rather than simply into nature (or biodiversity) and "other."

Some attention should be given to what the other types of tourism should be; this should be discussed with other users of tourism data. For example, the hotel industry group and the travel agents may be interested in detail on the expenditures and other characteristics of business travelers; the Ministry of Antiquities is likely to be interested in similar information about those whose primary interest is history and culture. The definition of tourism types would not be a basis for classifying individuals into discrete classes. Rather, it is a basis for allocating expenditure information among discrete classes; one individual might spend money on several types of tourism.

Tourism types would be defined by using the information provided in the activity checklist in the expenditure survey. The current CAPMAS/Ministry of Tourism survey includes a checklist of activities in which the visit might have engaged, as does the recommended WTO expenditure survey. This note assumes, therefore, that there will be such a question in the new survey as well.

I recommend, however, that the Egyptian survey question go beyond the current Egyptian one and the recommended WTO one. Instead of having a simple "yes-no" check-off list for activities, the new survey could ask visitors to indicate on how many days they engaged in each activity. They could indicate as many days as they want, since visitors will often do several things on one day.

This information would then be used to define tourism types. The table below shows how this might work. (These are not necessarily recommended activities for the actual survey; what should be in the list must be considered by everyone involved.) The visitor would be asked to indicate on the table below the activities in which s/he had engaged. Then different users of the system could categorize as needed.

The broad nature tourism category would include expenditures for all days on which visitors had engaged in any of the outdoor activities. The biodiversity category would include the expenditures of any visitor who had checked snorkeling, scuba, or desert trekking a minimum of, say, 4 times. The exact number would have to be determined by USAID, which is interested in that category; how much

biodiversity-based activity must a visitor do for her or his expenditures to be classified as really biodiversity-based? Or should the snorkeling or diving expenditures even of someone who does those things only once be considered biodiversity expenditures? (That would include only the expenditures for that day, not for the entire trip, as discussed below.)

Others who are interested in specific types of tourism would similarly use this table to define the categories of particular interest to them. For example, performances, festivals, monuments, and museums might be combined to create a cultural tourism type. The first two categories could be combined for a business type.

Tourist Activities	Number of days on which you engaged in this activity
Work or Business activities: Business and professional activities Professional or trade conference, seminar, symposium Study of language, degree program, short-term training **Recreation:** Attend performances, theater, film, etc. Attend festivals or fairs Watch sporting event Visit ancient monuments Visit museum Visit markets/shopping **Outdoor activities:** Swimming Go to beach Snorkeling Scuba diving Boating, sailing, windsurfing, fishing Desert treks Visit national park or protected area **Other:** Visit family or friends Pilgrimage or other religious practice Medical care	

The results of analysis using the data will be highly sensitive to how this list of activities is designed and how it is used to define tourism types. For example, should swimming be a separate activity from going to the beach? If someone goes out on a boat and jumps off it for a swim, should that count as two activities or one? If the users check swimming separately from going to the beach or going out on a boat, nature-based tourism will be allocated more activity-days than other activities. If there were a single category for all outdoor recreation, it would receive a lower share of activity checks than if there were many different outdoor recreation categories. Since the share of activity-days may form the basis for allocating expenditures to tourism types (see discussion below), it is important that the activity list be designed carefully.

This does not argue against this approach. Rather, it means that the list of activities included in the survey and the method for allocating expenses to activities should be considered carefully by a wide range of possible users of the data. In particular, the users involved with specific non-nature activities should have input into the survey design, to ensure that they don't feel that their interests have been superseded by nature interests. The technical committee to be created to work on the TSAs should be actively involved in ensuring that this is done.

HOW CAN WE ORGANIZE INFORMATION ABOUT NATURE-BASED TOURISM IN THE ACCOUNTS?

The TSAs, like the national income accounts in general, include data on several kinds of transactions:

1.   Expenditures by travelers; these are grouped into inbound, outbound, and domestic for TSA purposes. This includes people traveling for many purposes; leisure, business, health, to visit family, for education or training, and so on. For some analytical purposes only leisure travel is included in considering the contribution of tourism to the economy, however.

2.   The supply side; production of goods and services to meet the needs of travelers. The revenue portion of the supply side includes the earnings of hotels, restaurants, transportation companies, travel agencies, tour operators, venues that offer activities to tourists (museums, antiquities, natural parks, cinemas, theaters, sports to watch or participate, etc.), and other establishments that sell to tourists. The expenditure portion of the supply side includes their wages, input goods (called intermediate consumption in the accounts), taxes, investment, depreciation of capital, and so on. Where travel or tourism accounts for only a portion of the sales of any of these enterprises, it is necessary to identify the travel/tourism portion rather than including all revenues and expenditures in the accounts.

3.   Government expenditure on tourism; this includes public sector expenditures to support tourism, including all of the expenses of the Ministry of Tourism, the tourist police, some portion of the immigration expenses, and so on. It does not include travel in the line of business by government employees; this is part of expenditures by travelers.

4   Taxes and fees collected on tourist activity, by all levels of government.

Eventually all of these categories of transactions should be disaggregated to differentiate between nature (or biodiversity, reef, etc.) tourism and other tourism. For the present, however, we are focusing primarily on tourist expenditures, and inbound tourist expenditures in particular, because the immediate need is to revise the questionnaire used to gather those data.   Is it sufficient to disaggregate only expenditure data, or should we also disaggregate supply data?

The expenditures of inbound tourists on nature-based activities or other tourism types are of two kinds. The first is the amount they spend on the activity itself, for dive trips, equipment rental, performance tickets, or other recreation expenses. This can be asked directly in the survey. Both the current Egyptian survey and the recommended WTO form ask for estimates of total expenditures in a number of categories. Those categories could be expanded to request more detailed expenditure information for recreation or other activities, such as medical care or the cost of training. The detail included in the expenditure question should be sufficient to parallel the activities question, except that it should exclude activities that do not entail a direct cost, such as going to the beach.

The major challenge is to determine the share of expenditures on activities other than recreation that should be assigned to each tourism type. Do we assign all expenditure to a single type of tourism or do we find a way to divide up their expenditures among purposes of travel? The tourism surveys conducted over the past ten years in Egypt have apparently assigned all expenditures to the purpose that the visitor identifies as the primary one; however this can be quite inaccurate. If we do not wish to do that, we need to find a way to allocate expenditures among purposes. The next section considers this problem.

METHODS FOR ALLOCATING EXPENDITURE TO TYPES OF TOURISM

A number of different methods might be used to allocate expenditures to tourism types:

Method 1.   In the survey, ask the primary purpose of the visit. Assign all expenditures to that purpose. That is apparently what is now done. The current surveys ask about total expenditure and primary purpose of the trip. The Ministry of Tourism statistical publications provide data on

expenditure by purpose. Presumably this is calculated by simply assigning all expenditure to the single specified purpose. This assumes that the trips that are made for a number of purposes all average out to the same results as if each trip had had only a single purpose.

While this method is certainly simple to implement, it is probably biased. While people who come for business reasons, to study, or even to seek medical care may do a little recreational tourism on the side, those who come for recreation are unlikely to engage in business, study, or (we hope) obtain medical care on the side. This method will therefore underestimate tourism recreation expenditures.

Method 2. Ask visitors for an itinerary that shows how many nights they stayed in each location. Then classify locations by type of activity (nature vs. "other") and allocate expenditures based on how many nights the visitors stay in each location.

This might be fairly straightforward for Egypt if we are only interested in distinguishing nature-based tourism from "other." Any place on the Red Sea or the Mediterranean beaches would be classified as nature-based, as would nights spent in the desert. Cairo, Luxor, Aswan, and major historical sites would not be considered nature-based tourism, nor (probably) would Alexandria. Such activities as several-day boat trips along the Nile to visit historic sites and enjoy the river and birdlife would be divided equally between nature tourism and "other."

This approach could be effective for Egypt, where the relative simplicity of the environment might actually make it possible to divide all destinations into two mutually exclusive classes, one natural and the other not. However, it has two disadvantages:

- It does not allow us to similarly identify other tourism types. While our focus right now is on nature or biodiversity tourism, other users of the data may want to identify full expenditure data for business travel, medical travel, or cultural and antiquities travel. Those categories cannot be distinguished solely by location, so this approach would not be useful for their needs.

- This approach would not work in other countries because their tourism is not like that of Egypt. Using tourist expenditure surveys to obtain information with which to disaggregate TSA data by tourist activities is new, but other countries might be interested in experimenting with it as well. Testing an approach in Egypt that would not be applicable elsewhere limits its utility. If we can design an approach here that would also be useful elsewhere, our work could make a much greater contribution to the TSA field as a whole than if we develop a method that does not make sense elsewhere.

The WTO survey recommends inclusion of the itinerary question, although they have no intention of using the results to classify expenditures by purpose; they simply want to know where people have been and how long they spent. Egypt might decide to include it in the expenditure survey, therefore, but not use it to classify expenditures.

Method 3. Most inbound tourism expenditure surveys ask respondents to complete a checklist of activities, indicating whether they have engaged in any of them during their stay. This is a "yes-no" question; it does not obtain additional information about the activities. If, however, it were structured to ask them on how many days they engaged in each activity, it could provide a way to allocate expenditures to tourism types. The respondent could indicate more activities than days, since she might have done two things in one day, especially when the "activities" include such things as visiting family and going to the beach, or going to the beach and swimming. The share of each activity over the duration of the trip would be applied to general trip expenses (plane fare, lodging, food, and perhaps others) to allocate expenses to activities. (The arithmetic for doing this is demonstrated in the example below.)

Method 4. A fourth option is more complex but might provide a more precise way to allocate expenses, one that could take into account that different places cost different amounts. This strategy depends on including the itinerary question (though not using it as a basis for classification) and the checklist showing number of days for each activity. In addition, it adds an additional piece of information to each of those questions. On the itinerary, it asks how much the respondent paid for nightly lodging in each place. On the checklist of activities, it asks where the respondent engaged in

each activity. If they did the activity in several places, they could list more than one; alternately they could put the primary one.

This additional information would be used to more accurately prorate general expenditures to types of tourism. Instead of summing activities and establishing shares for the whole trip, activities would be summed for each location. The general expenditures for that location would then be allocated among only the activities engaged in there, rather than among all activities throughout the trip. If no activities were indicated for a given location, those expenditures would either be classified in "other" or prorated among all activities over the duration of the trip. The latter is probably more appropriate.

This is clearly a more complicated way to classify expenditures, and also would make the survey more complex for the respondents. An example may show how the methods 3 and 4 differ in application. The table on the next page shows data for two hypothetical visitors. Each comes to Egypt for one week. The first visitor spends six nights of seven camping in the desert, and the last night in Cairo prior to flying home. While in Cairo he does some shopping for gifts to bring back. The second visitor spends three nights camping and the other four in Cairo. While in Cairo he visits a number of antiquities and cultural sights and also does some shopping.

The first set of boxes (orange, if you have color printing or are viewing on screen) show what the two visitors actually spent. Of course we would not know what they really spent, since the survey won't ask for this much detail. If we choose method 3, we will actually know how much they spent for each category, where they spent each day on their trip, how many days they engaged in each activity, and how much they spent on each kind of activity. If we choose method 4, we will also know how much their lodging cost in each place and where they engaged in each activity. In order to evaluate the accuracy of the methods, however, we need to know actual expenditures, so we can see how each method performs with different consumption patterns.

The second set of boxes – green, if you have color – show on how many days each visitor engaged in each of the activities in the checkoff list. (This checkoff list is simplified for the example.) The first visitor had exactly one activity per day, while the second had two activities each day in Cairo and only one while in the desert.

The third set of boxes – yellow ones – shows the calculations with method 3. The share of activity-days from the checklist is used to allocate all trip expenditures to activities. Although shopping is listed as an activity (this may not be appropriate), the cost of the purchases is divided among all activities rather than being allocated only to shopping.

The fourth set of boxes – blue ones – shows the calculations with method 4. This method prorates non-lodging expenditures in two steps rather than only one. First the share of each day's lodging expenditure in total lodging expenditure is calculated. This gives us a share for desert and a share for Cairo for each visitor. Those shares are used to allocate the total non-lodging expenses to days. The results of that calculation are shown in the column headed "Prorated shares of non-lodging expenses." Because in this method we know where each activity was carried out, we can further calculate the share of each activity within the overall activities carried on in that place. (This calculation is not explicitly shown in the table.) Non-lodging costs for each place are then allocated to the activities carried out in that place, to obtain the results in the table headed "Amt allocated to each type of tourism." In this example the shopping expenditures are allocated to "shopping" rather than divided among activities engaged in in Cairo or divided over the whole trip. This could be handled differently; it is a matter for consideration. The museum admission fees are all allocated to "culture/antiquities." Because the survey is not likely to allocate in-country transportation to activities, the car rental in the desert is not allocated to "biodiversity," but is allocated among all activities instead.

Visitor 1

	Actual Expenditures (not shown on survey)								Method 3		Method 4						
	In-country trans-port	Hotel	Food	Admis-sions, other recrea-tion	Shopping	Total	Activity checkoff list	Number of days for each activity	Share of days for each type of tourism	Alloca-tion of expendi-tures	Share of day in total hotel expen-diture	Non-lodging expense: $570	Prorated shares of non-lodging expenses	Amt allocated to each type of tourism	Share for each type of tourism	Actual allocation to tourism types (not really known)	Actual shares
Day 1 Desert	$50	$10	$20				Cultural/ antiquities		0	$0	6%		$32				
Day 2 Desert	$50	$10	$20				Biodiversity	6	86%	$643	6%		$32	$250	33%	$480	64%
Day 3 Desert	$50	$10	$20				Beach		0%	$0	6%		$32				
Day 4 Desert	$50	$10	$20				Business		0%	$0	6%		$32				
Day 5 Desert	$50	$10	$20				Medical		0%	$0	6%		$32				
Day 6 Desert	$50	$10	$20				Study		0%	$0	6%		$32				
Day 7 Cairo		$120	$50		$100		Shopping?	1	14%	$107	67%		$380	$500	67%	$270	36%
Day 8 – depart																	
	$300	$180	$170	$0	$100	$750		7						$750		$750	

Visitor 2

	Actual Expenditures (not shown on survey)								Method 3		Method 4						
	In-country trans-port	Hotel	Food	Admis-sions, other recrea-tion	Shopping	Total	Activity checkoff list	Number of days for each activity	Share of days for each type of tourism	Alloca-tion of expendi-tures	Share of day in total hotel expen-diture	Non-lodging expense: $690	Prorated shares of non-lodging expenses	Amt allocated to each type of tourism	Share for each type of tourism	Actual allocation to tourism types (not really known)	Actual shares
Day 1 Desert	$50	$10	$20				Cultural/ antiquities	4	36%	$436	2%		$14	$565	47%	$420	35%
Day 2 Desert	$50	$10	$20				Biodiversity	3	27%	$327	2%		$14	$71	6%	$240	20%
Day 3 Desert	$50	$10	$20				Beach		0%	$0	2%		$14				
Day 4 Cairo		$120	$50	$20	$50		Business		0%	$0	24%		$162				
Day 5 Cairo		$120	$50	$20	$50		Medical		0%	$0	24%		$162				
Day 6 Cairo		$120	$50	$20	$50		Study		0%	$0	24%		$162				
Day 7 Cairo		$120	$50	$20	$50		Shopping?	4	36%	$436	24%		$162	$565	47%	$540	45%
Day 8 – depart																	
	$150	$510	$260	$80	$200	$1,200		11						1200		$1,200	

The final set of boxes – orange again, if you have color – shows how we would want to allocate expenses to activities if we actually had full details about the visitors' expenditures. The comparison of amounts (or shares) between the two methods and this "actual" allocation gives us a sense of how accurate each method is. These examples suggest that method 3 is closer to the "actual" visitors' expenses than method 4, even though method 4 does capture the lower cost of desert travel more accurately than method 3 does.

While additional examples might reveal other patterns, these examples suggest that the added complexity of method 4 is not worth the effort involved and the confusion it would cause (has already caused?), and method 3 would be preferable.

However, that does not mean we should automatically rule out asking where the visitors carried out their activities. Even if it were not part of the algorithm for allocating non-lodging expenditure, that information would be useful for those interested in nature-based or biodiversity-based tourism, because it would make it possible to link expenditures, activities, and environmental quality. That could only be done more crudely without this information. Without that question, those interested in analyzing biodiversity-based tourism would have to make assumptions about where such activities were carried out. If the visitor only went to one place on the Red Sea, it would be obvious where s/he went diving. However, for visitors who went to two different places on the Red Sea this would be more difficult. The same caveat applies to desert travel.

DATA PRESENTATION IN THE TSA

The data gathered through the expenditure survey might be presented as shown in the table below. Standard expenditure data in the TSA are presented as shown in the un-highlighted portions of TSA Table 1 below. (TSA Table 1 pertains to inbound tourist in particular; however Tables 2 through 4 use the same general structure to present expenditure data for domestic tourists, outbound tourists, and overall tourism expenditure, respectively.)

The row headers show the categories in which expenditure data are presented in the TSA. Expenditures on activities are in categories 5 and 6, and obviously they do not provide the level of detail that interests us. The classification of tourists - individuals, not purposes of tourism – is shown in the column headers. This is based on whether they stay overnight, but not on the activities in which they engage.

The information of interest to us would be presented as suggested in the highlighted cells. Within category six, the yellow (lighter) rows for disaggregated data on activities would show the actual expenditures on diving, treks, and so on, without including the associated expenditures for hotels, food, or other living expenses. The use of "of which" in that row header indicates that the information in the row is part of the overall row above it, but does not necessarily include everything in the prior row.

The subdivision of the three data columns, with blue (darker) highlighting, would provide the detail on how non-recreation travel expenses are allocated to different types of tourism. The cells in which "Disaggregation" is written are those that would be disaggregated by tourism type; these exclude recreation expenditures, since those would be assigned directly to the appropriate tourism type. The discussion above on methods for allocating non-recreation expenditures explains how to fill in these detailed columns.

Table 1 Inbound tourism consumption, by products and categories of visitors (visitor final consumption expenditure in cash) (Net valuation)				
	Same-day visitors (1.1)	Tourists (1.2)		Total visitors (1.3) = (1.1) + (1.2)
	This column could be subdivided into sub-columns, one for each	This column could be subdivided into sub-columns, one for each		This column could be subdivided into sub-columns, one for each

Products	type of tourism, plus one for the total	type of tourism, plus one for the total	type of tourism, plus one for the total
Products			
A. Specific products			
A.1 Characteristic products (a)			
1 – Accommodation services	X	Disaggregation	Disaggregation
1.1 – Hotels and other lodging services (3)	X	Disaggregation	Disaggregation
1.2 – Second homes services on own account of for free	X	X	X
2 – Food and beverage serving services (3)	Disaggregation	Disaggregation	Disaggregation
3 – Passenger transport services (3)	Disaggregation	Disaggregation	Disaggregation
3.1 Interurban railway (3)	Disaggregation	Disaggregation	Disaggregation
3.2 Road (3)	Disaggregation	Disaggregation	Disaggregation
3.3 Water (3)	Disaggregation	Disaggregation	Disaggregation
3.4 Air (3)	Disaggregation	Disaggregation	Disaggregation
3.5 Supporting services	Disaggregation	Disaggregation	Disaggregation
3.6 Transport equipment rental	Disaggregation	Disaggregation	Disaggregation
3.7 Maintenance and repair services	Disaggregation	Disaggregation	Disaggregation
4 – Travel agency, tour operator and tourist guide services	Disaggregation	Disaggregation	Disaggregation
4.1 Travel agency (1)	Disaggregation	Disaggregation	Disaggregation
4.2 Tour operator (2)	Disaggregation	Disaggregation	Disaggregation
4.3 Tourist information and tourist guide	Disaggregation	Disaggregation	Disaggregation
5 – Cultural services (3)			
5.1 Performing arts			
5.2 Museum and other cultural services			
6 – Recreation and other entertainment services (3)			
6.1 Sports and recreational sport services			

Of which:
   Snorkeling
   Diving
   Desert treks
   and so on
	Data here on each type of recreation expenditure	Data here on each type of recreation expenditure	Data here on each type of recreation expenditure

6.2 Other amusement and recreational services			
7 – Miscellaneous tourism services	Disaggregation	Disaggregation	Disaggregation
7.1 Financial and insurance services	Disaggregation	Disaggregation	Disaggregation
7.2 Other good rental services	Disaggregation	Disaggregation	Disaggregation
7.3 Other tourism services	Disaggregation	Disaggregation	Disaggregation
A.2 Connected products	Disaggregation	Disaggregation	Disaggregation
distribution margins	Disaggregation	Disaggregation	Disaggregation
goods (4)	Disaggregation	Disaggregation	Disaggregation
services	Disaggregation	Disaggregation	Disaggregation
B. Non specific products	Disaggregation	Disaggregation	Disaggregation
distribution margins	Disaggregation	Disaggregation	Disaggregation
goods (4)	Disaggregation	Disaggregation	Disaggregation
services	Disaggregation	Disaggregation	Disaggregation
TOTAL			

number of trips			
number of overnights			
X does not apply			

NOTES:
(1) Corresponds to the margins of the travel agencies
(2) Corresponds to the margins of the tour operators
(3) The value is net of the amounts paid to travel agencies and tour operators
(4) The value is net of distribution margins (a) Even if they are called "products", no goods are included for the time being. Two main reasons led to that decision:

- the importance of the existing differences (both in level and structure) between the types of goods acquired by visitors according to the country and place visited;
- the existing limitations of the available sources of statistical information. Nevertheless, goods are not totally banned from the analysis, as retail trade services(specialized and non specialized) associated with the sale of goods to visitors are included within the list.

This is due to the fact that the associated productive activity is an activity which is in contact with the visitor and thus, given certain circumstances, can be viewed as a tourism activity.Moreover, the list of products included in each of the 7 groups under consideration is shown in Annex II; the explanatory notes for each of them are also included in Annex I, in order that they may be clearly identified.

Source: The TSA table structures may be downloaded from the web at www.world-tourism.org/statistics/tsa_project/TSA_in_depth/KeyWords/X.5.htm.

DATA ACCESS FOR OTHER USES

Just because it is possible to present all of the detail in the TSA tables does not mean that it will always be desirable. Many users of the tables may not be interested in the full detail; when Egypt wants to present its TSA in a structure that is just like those of other countries it may choose to omit the detail. Moreover, many other kinds of detail might be developed, to respond to other particular interests; each presenter of TSA data may choose which details to include and which to leave out.

Two general kinds of users may be interested in other ways of accessing the TSA data. Some will want to do their own analysis to address their particular interests, and will want to work directly with the underlying data. To ensure that the maximum value added is obtained from the investment in data collection, the full survey database must be readily available to the public so that it can be analyzed in many ways.

Other users may want specific presentations of information, but are not interested in or able to do their own analysis. Such users might include trade associations, business people, donor agencies, and others. CAPMAS and the Ministry of Tourism may want to put some effort into identifying those users and determining what kinds of data presentation will be useful to them. Then the tables of particular interest to them might be part of the regular tourism statistics published by the Ministry of Tourism, or might be made available to the public in other statistical publications.

OTHER CATEGORIES OF THE TSA

Because the immediate focus of this note has been the inclusion of nature concerns in the inbound tourist expenditure survey now being designed, it has focused only on that part of the TSA. The full TSA includes ten tables of data[1].   Tables 1 covers expenditures by inbound tourists; we have seen this in detail, and have a strategy for obtaining information on tourism types including nature-based tourism.

Tables 2 and 3 present information on domestic and outbound tourist expenditures, and **Table 4** summarizes the information in Tables 1 through 3. The data for tables 2 and 3 will be collected from household consumption surveys conducted every year by CAPMAS. Since we do not have access to

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[1] The structure of all of the tables may be found on the web at www.world-tourism.org/statistics/tsa_product/TSA_in_depth/KeyWords/X5.htm.

that survey at present, and work it not yet underway to begin modifying it to include tourism data, it is premature to make recommendations concerning how to integrate nature or biodiversity-based tourism into that survey.

This will not be a trivial issue, however. Household consumption surveys are quite different from tourist expenditure surveys. Ensuring that the data in the two surveys will really measure the same thing will take very careful design work. Among the issues to be considered will be how to reconcile the data on individual expenditures in the inbound survey with data on expenditures for the whole household in the household surveys. Another problem will be to determine whether one-day excursions by a household constitute tourism, or simply going to a local place that is part of their regular activity.

A broader issue may arise simply because we are not designing the two surveys together. As this note suggests, a lot of thought must go into allocating expenditures to tourism types for the inbound survey. The methods used and the information that can be obtained are closely related to the precise design of the questions in the survey. A different set of design and methodological issues will surely arise with the household survey, which will make it difficult to guarantee compatibility of data across the surveys. Finalizing the inbound expenditures survey without ensuring that it will be possible to obtain the same information from the household consumption survey is risky; it may turn out that they are not compatible.

Table 5 covers the output of tourism products by conventional industry sectors in the economy. The row headers are the same products as in Tables 1 to 4. The column headers include twelve ISIC codes (at different levels of detail) considered to constitute the tourism industries; these include hotels, second home ownership, restaurants, railways, road transport, water transport, air transport, passenger transport and supporting services, passenger transport equipment rental, travel agencies, cultural services, and sporting and other recreational services. The activities of interest for nature or biodiversity tourism would fall within the last industry category. Conceivably it would be possible to disaggregate this category (and this column of TSA Table 5) to provide the data of interest. However, without any information about how such information is now collected, it is difficult to be more specific about how this might be done.

The first industry category of this table, hotels, might also be of interest for nature-based tourism or for the category of "low-impact tourism" discussed early in this note. Hotel statistics often provide data by type of lodging, distinguishing among hotels, tourist villages, campgrounds, youth hostels, and so on. Hotel data are distinguished by number of stars. These categories could be expanded to include so-called "eco-lodges" or other forms of low-impact lodging. Whether it would be possible to disaggregate the data into that kind of classification depends on the data sources, however. Again, without studying the current data source, it is not feasible to assess whether this could really be done.

Table 6 shows the intermediate consumption of tourism products by the twelve tourism sectors, total output of the tourism products, imports of those products, and taxes less subsidies on those products. This is enough information to calculate "tourism ratios," or the share of each product (including connected products) that is actually purchased by the tourism industry. These data are input into the TSA version of the input-output accounts. In principle it should be possible to disaggregate these data as suggested for the other tables, distinguishing industries and products in more detail and distinguishing between conventional and "green" lodging. However it is not possible to begin assessing the feasibility of actually doing this without much more information on the structure and data sources for the conventional income accounts.

Table 7 shows employment in the tourist sector. The column headers are the number of jobs and gender of workers; the rows headers track the twelve industry sectors. If industry information is available in more detail, then it may be possible to obtain employment information at the same level of detail. This requires a thorough assessment of the data sources for the supply side of the industry, which is not yet possible.

Table 8 shows investment (gross fixed capital formation) in the tourism industries, government, and other related industries. The column headers list the industry sectors; the row headers list the types of investment (from the SNA asset classification) that might be made by the tourism industry. The rows include, among other things, categories for lodging, "constructions for sport, recreation, and

entertainment," and "improvement of land used for tourism." These could, in principle, be disaggregated to distinguish "eco"lodging from other lodging, to identify investment in dive boats and other capital used specifically for biodiversity tourism, and to distinguish low impact land improvement from other land "improvement". Again, this requires detailed information on what these categories mean and how the data are now collected to complete them, in order to assess whether it is actually feasible to identify capital used for nature or biodiversity-based tourism.

The TSAs track gross fixed capital formation, but they do not include accumulation accounts or track depreciation of capital. If there were interest in building asset or accumulation accounts for natural assets on which tourism depends, particularly coral reefs, this would be outside the conventional structure of the TSAs. It would fall within the structure of the environmental accounts, however, and could be taken up in that context.

Table 9 covers tourism consumption by government. It provides information by level of government (column headers) and by function (row headers). The functions include tourism promotion, general tourism planning and coordination, statistical work on tourism, administration of information bureaus, control and regulation of establishments in contact with visitors, and so on. As with other categories, it might in principle be possible to disaggregate the functions to distinguish those related to environmental protection, coastal zone management, regulating the dive industry, and so on. This depends, however, on how the data are actually obtained and whether it is possible to disaggregate them.

Table 10 includes an array of non-monetary indicators of tourism, such as number of visitors, mode of transport, number and capacity of lodgings, and number of establishments in characteristic and connected activities. The data on lodgings could in principle be disaggregated to differentiate eco lodgings from others, as mentioned in the case of other tables. Again, whether this is feasible depends on the source of the data on lodgings and how detailed it is.