TOURISM-RECREATION: CONCEPTS FOR ASSESSING POTENTIAL IN FORESTD REGIONS

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ABSTRACT

The opportunities for foresters to take even greater leadership in tourism-recreation development are abundant and are based on the many areas of overlap between these fields. This paper describes the basic tourism-recreation system—the resources and the resource development needed for it to function. From this, a concept for assessing the resource potential of a region has been developed. Application of this concept to two portions of Texas demonstrates the interrelationship between these two fields and leads to conclusions that new and greater collaboration between the planning, development and management sectors of both tourism-recreation and forestry are in order.

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INTRODUCTION

Few disciplines have greater involvement in tourism and recreation than does the field of forestry. While the fields of hotel, park and transportation management have obvious linkages, the field of forestry, because it is an extensive owner-manager of land resources, is equally important. Yet, in the eyes of many forestry professionals, tourism-recreation is seen as foreign and often as conflicting with forest production.

It is the purpose of this paper to explain the land use nature of tourism-recreation with the intent to show relationship to forestry. It is not the purpose to advocate changes in forest production policy. Rather, by understanding the needs of the tourism-recreation system, forest managers may be able to set policy that can more effectively interface with that system. In many instances this may develop into a very compatible relationship. In others, conflict may demand isolation.

It is very logical and timely that the field of forestry now assert leadership in its special relationship with tourism-recreation. First, no other single field encompasses within its professional concern as many resource assets for tourism-recreation activity as does forestry. Forested lands often include waters, hills, wildlife, favorable climate, historic
sites and esthetically important landscapes. Second, federal and state forestry agencies, like none others, have already established management practices impacting tourism-recreation development. While these practices may not have been overtly declared, they are being practiced and very effectively. Third, no other field has done as much research of the forest landscape for recreational use. The extent of application of science and technology cannot be matched by any other field relating to tourism-recreation.

Today, forestry interests are feeling pressure from two publics equally interested in tourism-recreation. Local publics, including the financial interests of states and nations, seek its economic impact. The state of Texas, for example, now enjoys an annual traveler economic impact of $6.1 billion, $300 million in state and local taxes and generation of over 227,000 jobs. (The Impact: 1978) Equally important is the desire by the majority of the public to travel and participate in recreation. The public's propensity to seek new recreational experiences away from home seems to know no bounds. In spite of higher prices, inflation and threats of energy shortages, travel continues to grow. The personal rewards--change of scene, exercise, educational enrichment, family togetherness, creativity--are considered rights of citizenship. They continue to be given high priority, not only by the visitor users themselves but by social organizations promoting betterment of society and by public agencies seeking to protect these rights.

For these reasons and many more, it should be easy for forestry to assert even greater leadership in looking toward an even better future--planning for even closer cooperation and collaboration with tourism-recreation.
Throughout this presentation, the terms "tourism" and "recreation" are linked together, not because they are the same, but because land development and use forces them together. Except for recreation in the home and close by, all other recreation involves travel and almost always the expenditure of money. Therefore, it becomes linked with tourism.

The following presentation contains many elements familiar to foresters. However, the concept of assessing a region for tourism-recreation development and applications of this concept may suggest many new opportunities now open to the field of forestry.

THE TOURISM-RECREATION SYSTEM

Study of tourism and recreation shows that while these two fields have different philosophical foundations, they converge at the stage of land development, management and use. While tourism promoters may think only of economic impact and recreation supporters only of social welfare, functionally they merge into a whole on much of our forested lands.

One way of clarifying these relationships is to consider a simplified model of the very complicated tourism-recreation system, as shown in Figure 1. (Gunn: 1972)

A basic functional relationship is between people and attractions. While some attractions are man-made, most depend upon cultural and natural resource assets. Forested areas frequently contain many resource assets of interest to tourism-recreation users when these resources are developed. But, the extent of use is highly dependent upon the proximity of the attractions to the people and to many other characteristics of the people—the market. Most attractions in this country are owned and operated by governmental and non-profit organizations whose primary purposes are not tourism-recreation.
A necessary spinoff from the use of attractions is the need for many services and facilities. Users need and desire a great variety of support services, such as lodging, food service, guide and tour service, retail purchases, communications and car service. A few services-facilities are required at the attraction sites but most, such as lodging, entertainment, food service, are preferred by users and are more successful when located at community service centers. Although the greatest economic impact of tourism-recreation comes through these commercial services-facilities, it must be remembered that they, in turn, are dependent upon attractions, many of which are located in forested regions.

Transportation and access combine to form a very important component and at three levels: between residential locations and key service centers; between service centers and attraction complexes and within attraction complexes. Frequently, these functions take place on forest lands. Different modes may be needed for these several functions. To avoid resource abuse, greater use of mass transportation systems may be needed both within and between attraction complexes and service centers.

Tourism-recreation users in forest areas as well as elsewhere demand both information and direction, a final component of the tourism-recreation system. They seek guidebooks, tour guides and descriptive literature and are influenced by the several communications media. Signs, maps and CB are relied upon to provide directions to all travel objectives. Some of the best tourism-recreation literature and signage is produced by forest owners.

The model in Figure 1 is an attempt to graphically dramatize the dynamics of the tourism-recreation system. The stability of each component is much dependent upon stability of the other components. And, whenever forests are utilized in any way for these components, they are caught up in this very dynamic and changing system.
It may be useful now to turn toward the topic of assessing the future potential of a region for effective functioning of the system. Past preoccupation with tourism-recreation site development has tended to direct attention away from the broader scale. Consideration of the regional scope may assist forest interests in understanding their role in either fostering or containing tourism-recreation by express policy. The following concept is offered as an approach for foresters in assessing the potential of tourism-recreation development on a state or multistate basis.

ASSESSMENT CONCEPT

Briefly, the steps required to assess the potential of a region for tourism-recreation development potential are:

1. identify user categories
2. identify physical and program factors
3. research the region
4. map strength of physical factors
5. conceptualize potential

1. Identify User Categories

Before one can assess the tourism-recreation potential, an understanding of the range of potential uses is needed. Due to lack of research results, it is difficult to classify tourism-recreation use. Tourism studies often include all travelers who travel 100 miles from home and spend one night out. (The Impact: 1978) Because this does not emphasize pleasure or recreation, another approach may be to consider the following five categories: outdoor recreation, vacation home use, touring-sightseeing, resort use and attending events. (Gunn: 1973) Another classification scheme divides use into two categories: touring (flows of recreation
travelers from place to place) and destination (use primarily in vicinity of one site). (Figure 2) With more sophisticated techniques and better research foundations, in the future these approaches may need to be modified greatly.

2. Identify Physical and Program Factors

One approach to an assessment process would be simply that of seeking out available land at the right price or obtaining land only along agency policy lines. Another approach would be to investigate only those lands within certain agency or private ownership, such as those managed by the Forest Service. Unfortunately, these approaches are not necessarily related to important tourism-recreation factors nor to a broad geographic scale. The concept described here starts at the other end—the resource base—and works back to ownership and control. This allows a more objective selection of resource foundations that are most important to tourism-recreation. Then, comparisons can be made for competing and compatible uses, such as for forestry.

Study of tourism-recreation development reveals the importance of the following physical foundation factors:

1. water, waterlife
2. vegetative cover, wildlife, pests
3. climate, atmosphere
4. topography, soils, geology
5. history, ethnicity, archeology, legends
6. esthetics
7. institutions, industries, attractions
8. service centers
9. transportation and access
Forest resource managers can readily see how several of these factors are important on forest properties.

For tourism-recreation development, the following program factors are also very important:

1. markets, promotion
2. information, direction
3. socio-environmental
4. implementing agents

The significance of these and their relationship to forestry is more readily seen from the applications, described later in this discussion.

3. Research the Region

Through examination of existing documents, observational reconnaissance and interviews with knowledgeable informants, pertinent information about all these factors can be studied within a region. This step is not pure inventory in the sense of cataloging or accumulating masses of data. Only that information on each factor pertinent to tourism-recreation development is needed. Some data, such as soil classifications for agriculture, may have to be converted to meaningful data for tourism-recreation: erodability, structural support, plant support.

4. Map Strength of Physical Factors

The concept described here is based upon the assumption that wherever the combined physical factors exhibit the strongest support, tourism-recreation development has potential. One technique is to make an overlay map for each factor, indicating the location by color. The nine factor overlays show where the several factors are strongest by means of the most intense color. This method assumes that all factors are of equal weight. A refinement of this
uses overlays of number scales which are then aggregated. (This is demonstrated in the first example of application in East Texas). A further refinement utilizes the computer. (This is shown in the second example.)

5. Conceptualize the Potential

The final stage is to develop concepts of tourism-recreation development which are based upon this process. The final concepts include four major parts: zones with the highest potential for development; locations with high potential for attraction complexes; key community service centers and transportation and access.

Referring again to Figure 2, one can observe these key elements in an overall concept of a region's tourism-recreation potential for both touring and destination purposes.

When these concepts are delineated, those areas of compatibility or conflict with other land uses, such as forestry, can be observed. This conclusion can provide the foundation for the creation of realistic policy, both for forestry and for tourism-recreation.

Also part of this final stage is drawing conclusions about the program factors. This includes facts and recommendations about markets, promotion, information, direction, socio-environmental and which agencies and organizations can be expected to assert leadership in future tourism-recreation development.

APPLICATION A

The first application of this concept of assessment described here is in a region of east Texas. It consists of 32 counties as shown in Figure 3, including the Piney Woods and the Big Thicket. (Gunn: 1973).

For this study, the physical factors were mapped for each of five
categories of tourism-recreation: touring-sightseeing, outdoor recreation, vacation home use, resorting and attending events.

By means of a scaling system, the location of strong-to-weak potential support was mapped for each factor for each category. By using overlays, these scores were hand added to develop totals for each of the categories. Final maps were used as foundations for conceptualizing the development potential for the region as displayed in the series of maps, Figure 4.

In addition, it appeared that when the five categories were studied together, four separate zones could be delineated as shown in Figure 5.

Zone A, for example, was labeled "Caddo Lake Vacation Center." Its potential appeared to lie in the natural resource assets, the synthesis of old South and the Civil War and rich historical background. More specifically, the following seemed to be possible developments:

The restoration of Jefferson.
The restoration of the Big Cypress Bayou to navigability.
Steamboat travel from Jefferson to Caddo Lake.
Revitalization of lakeside development.
Creation of a Caddo Indian Cultural Center.
Increased water quality control.
National, indigenous "Leadbelly Blues Festival."
Cypress Trail through the Caddo Lake area.
A trail system connecting all attractions.
Diversified recreation: fishing, water skiing, photography.
Expansion of tourist services in Marshall.

Zone C, "The Big Thicket" was seen as encompassing a broader concept than only that of the National Preserve, important as that is. Primary use
would be by day rather than longer stay. Some of the features upon which the future potential seems to depend are:

Expansion of the historic theme at Woodville, begun by
Heritage Gardens.
Hiking trails throughout the region.
New nature and arboretum center.
Restoration of logging system as an interpretive tour.
(tie together historic forest processes)
Logging/Lumberjack Festival
Scenic road tour.
Linkage between private and public development.

It was concluded that this portion of Texas had special assets with considerable potential for tourism-recreation development. Needed was a stronger commitment to integrate the many separate tourism-recreation elements and guide future growth. As yet, the focal community centers were not aware of this potential and therefore were not developing policies that would both protect the resource assets and foster development. Except for campsites, trails, hunting areas, and sales of land for vacation homes, tourism-recreation development policies of forest interests were very few.

APPLICATION B

The second application of this land assessment concept is that of a 20-county region of south-central Texas, stretching about 250 miles inland from the Gulf of Mexico. Although the region contains few forests, the use of computer techniques demonstrates an updating of the concept, equally applicable to forest regions. The boundaries, primary cities, counties and main highways are illustrated in Figure 6.
The first step consisted of research of the region's physical features. By means of study of documents, reconnaissance of the region, and interviews with experts, both narrative statements and maps were produced. Brief results of this research are listed in Table 1.

Table 2 and 3 indicate a separate weight, or "index," given to each physical factor, based on the assumption that these factors are not of equal weight in support of either touring or destination tourism development. These weights were developed by a panel of experts. Obviously, this is a subjective evaluation but is based not upon whim or local pride but upon documentation of facts about each factor. For mapping purposes, each index was divided into five levels of potential support, from "strong" to "weak". The resulting number of values could then be used in preparation of a hand-drawn map for each factor. Figure 7-A illustrates a hand-drawn map for the factor of "water-waterlife" for touring tourism.

The several hand-drawn maps were then translated into computer maps so that they could be aggregated. Wherever the totals were the largest, the strength of support of tourism development would be strongest. By using a computer map grid for the SYMAP (Dudnik: 1971) program, each cell for the scale of map used represented 6.25 square miles. Figure 7-B is a computer printout of the same map as Figure 7-A.

As the computer maps were added together, they produced composite maps for both touring and destination development potential. To graphically illustrative these totals, the maximum score is divided into ten levels, printed out as symbols; the dark to light illustrating
high to low scores. For ease in identifying the potential, these ten symbols were graphically regrouped into five, showing areas where the combined factors were "strong" to "weak," as illustrated in Figures 8-A and 8-B.

Study of both the research information about all factors and the results of the computer mapping provided locational conclusions about what kinds of development had potential and where such development most logically could take place. This final assessment is illustrated in Figures 9-A and 9-B. Graphically, four main elements are illustrated: zones with highest potential; locations with high potential for future attraction complexes; key community service centers and transportation and access.

Touring Tourism

In Figure 9-A are indicated the potential touring tourism developments that could take place because of the assessment resulting from this concept. The main foundations were historic sites and artifacts and natural resource assets. In many instances, no development had yet been made at historic points of interest with the potential of large and very meaningful complexes. The development of museums, restoration of historic buildings, and creation of pageantry nearby could offer opportunities for loop walking or drive trails and holding special events in squares, malls or parks. Interesting land features, such as reservoirs, rivers, isolated forests, beaches and coastal resources provide many opportunities for touring tourism activity development.

Wherever there appeared to be a grouping of these attraction complex potentials around a service center and near a circulation corridor, a zone was identified. This is merely a generalized area in which a number of complexes could be developed and served by the same service center and access.
Because of the importance of the travel ways for touring, all transportation corridors, when finally selected, would need to be studied and possibly redesigned to fulfill tourism functions. This might require very little redevelopment—perhaps only some signage and improved information-direction material. On the other hand, major cleanup, scenic easements, new highway design, expanded service center functions (toilet facilities at rest stops), new landscape plantings and the installation of certain constraints against public trespass along the way may need to be initiated. For air travelers, new linkages with ground tour corridors may need to be created.

Although this provides ideas and impetus for new tourism development, further refinement would be necessary. For example, the developers of the several tours could conceive of another stratification—that by topical interest of the tourist. The basic routings could remain the same but a "heritage" tour might make stops a different attractions complexes than an "industrial plant" tour or a "scenic" tour.

Service centers were chosen on the basis of their own existing service capability, their potential for expanded service, their proximity to potential attraction complexes and the accessibility.

Destination Tourism

For destination tourism, shown in Figure 9B, this region has good highway access and some air access to existing and potential markets. The following five destination zones contain cohesive resource foundations lending themselves to considerable future tourism development.

Zone A contains potential for vacation home complexes, resorts, dude ranches, organization camps, water sports areas, conference centers and major
sports arenas. The hills, lakes, topography, history and state capital combine to provide strong foundations. By increasing the things to see and do, linkages with expanded markets could be made. Research of socio-environmental factors showed that a few counties in this zone were concerned about social impacts of tourist growth.

Zone B, a coastal area, has great potential because the resource assets have not yet been developed to a very large extent. Increased development to utilize the birdlife, waterlife, waterfront forces, biological production in the estuaries and geological formation of barrier islands has many possibilities. Large nature interpretive complexes could provide an important tourist function, leaving extensive areas in protected zones for preservation of natural ecosystems. Other potential lies in the festivals, pageants, historic restoration and interpretation of the coast.

Linkages with outside markets are not strong. Special design care must be exercised to prevent erosion of the esthetic resource assets as better access is provided. Service centers are not yet fully developed for tourism but have this potential.

Zone C is well suited to inland Texas tourism development, such as for dude ranches, resorts and special development around the German and Czech themes. Market sources are generally available, accessible over good highways and the service centers are beginning to orient themselves toward tourist development.

Zone D is a coastal plains destination area with the city of Victoria and the Guadalupe and Lavaca Rivers are prime assets. Opportunities for camping, vacation home, water recreation and conference activities can be found here. The countryside is picturesque and the outside markets would find it
a zone much more interesting and appealing than the typical Texas image.

Zone E, although relatively small, does have potential centered on the natural resource assets of river valleys. Camping and vacation home complexes could offer interesting vacations for many and are readily accessible from markets.

Program Concepts

Although not lending themselves as well to mapping, the research of program factors led to conclusions important to development potential. Study limitations did not allow adequate depth of local citizen input. Certainly, any regional assessment must have great input from local citizens, governments, developers and potential investors.

One conclusion centered on the need for greater education on the several facts of tourism development. Some of the prime businesses oriented to tourism were aware of its impact but tourism does not now enjoy a high level of understanding within the region. For example, it is not well known that in these counties there is now an economic impact annually of $307,692,700, employment of 2,000 people and returns to local taxes of $3,116,800. (The Impact: 1978).

Both nearby and distant markets might be cultivated but only following coordinated development-promotion-information programs. This is not now available for these zones. Special market interests could be emphasized: spring and fall offer idyllic vacation settings. Careful market studies of the special opportunities within this region could be of value.

Improved information and communication offer other opportunities. Even existing attractions and services are not well communicated to the visiting
public. It is not easy for the visitor to learn about points of interest, travel ways, accommodations and specialty shops.

If the concepts of physical development are to be realized, it is clear that stronger organization to stimulate development is needed. In several instances, industrial development is promoted but no comparable programs for tourist development can be found.

Linkage needs to be established between the many forces fostering resource protection and restoration and the developers of tourism. While there is a functional spinoff from such programs as historic restoration, there is no organized linkage with the programs of inviting and providing services to visitors.

The physical development of tourism could be enhanced if greater coordination of decision-making could be accomplished between the several state agencies that impact on tourism. Without creating new and cumbersome bureaucratic procedures, there is merit in each agency input to the other on tourism matters.

Another important level of communication and decision-making is that between counties. Perhaps through leadership and catalytic action of the councils of government, the several counties of the region can bring the several opportunities into alignment and implementation.

Finally, linkage between public policy on park and recreation programs and decisions on commercial development of tourism is a great opportunity for improved tourism. One major new policy of all public agencies could be to stimulate innovative and environmentally sensitive development by the private sector. Closer collaboration and cooperation between the public and the private sectors shows promise of improved location selection, improved service
to visitors and improved protection of the many resource assets of the region.

CONCLUSIONS

From these applications of a concept for assessing the tourism-recreation potential of a region, a few conclusions, especially as related to forestry may be drawn.

1. There is great overlap in land use between the tourism-recreation functional system and that of forestry. Although this may have been known by some for many years, the many implications from this fact are not yet brought into coordinated policies between decision-makers of forestry and tourism-recreation.

2. When the needs of both forestry and tourism-recreation are better known, there may be less conflict than popularly believed. Much of tourism-recreation is concentrated in high density complexes—complexes of attractions and service centers. Even the more extensive recreations, such as wilderness hiking and canoeing are along rather limited corridors.

3. Tourism-recreation development is closely allied to certain factors: resource assets for attractions, transportation, service centers and proximity to population concentrations. If forest areas contain some of these prime elements, there is need for special forest management policies to accommodate tourism-recreation.

4. The geographic distribution of tourism-recreation potential probably does not coincide with forest ownership and jurisdictional boundaries. Therefore, forest management policy may need to vary greatly from place to place if it is to include tourism-recreation development. Federal or state policy applied uniformly is bound to conflict with the realism of the heterogeneity
of tourism-recreation potential.

5. Philosophical and ideological concepts of conservation and protection (often embraced by forestry) must be balanced with the needs of visitors to these resource areas. Mass tourism-recreation use can be accommodated with care in design and management, not constraint on users. Solutions on public lands that involve rationing or control of users generally are unacceptable on several counts: political, social, economic.

6. As new approaches to land assessment for tourism-recreation development appear, better policies and decisions by both the public and private sector can be made. The decisions will not necessarily be made more easily. But, if the implications can be considered early, many conflicts and difficulties can be avoided. The concept suggested here is intended not as a cureall methodology but rather as an approach to stimulate further assessment and management study between forestry and tourism-recreation.
BIBLIOGRAPHY


General Soils Map of Texas. Department of Agricultural Communications. MP 1034. Texas A&M University, College Station, Texas. (n.d.)


Hotel and Travel Index. Recreational Guide to the Central Texas Coast. Texas A&M University Sea Grant Program. College Station, Texas. (Spring, 1976).


**Official Highway Travel Map.** State Department of Highways and Public Transportation, Austin, Texas 1977.


Skrabanek, R.L. and Upham, W.K. *The Population of Texas.* Texas A&M University, College Station, Texas. (April, 1974).

**Soil Survey of Travis County.** U.S. Department of Agriculture, Soil Conservation and Forest Service. USGPO. (1972).


COPY FOR FIGURE NOTES

Figure 1. A model of the tourism-recreation system. Relationship to these functional components frequently become issues on forested lands.

Figure 2. Two categories of tourism-recreation use demand slightly different resource characteristics and development. These diagrams illustrative how their potential can be combined into and overall regional concept.

Figure 3. A 32-county portion of East Texas, including extensive pine forests, was used as an experimental area for assessing tourism-recreation potential. While the region contains no major population concentrations, it is close to several million people in metropolitan areas of Fort Worth-Dallas, Beaumont-Port Arthur-Orange, Houston-Galveston.

Figure 4. By means of mapping scored results of overlays representing several development factors, areas (shaded) with the greatest potential were identified. This means that these areas are strongest in these factors: water, history, topography, vegetation, climate, esthetics, existing attractions, relationship to markets, access and nearness to service centers. Significant to forest management is the extent to which tourism-recreation potential could compete with or be compatible with forestry.
Touring-Sightseeing
Outdoor Recreation
Vacation Home Use
Resorting
Attending Events

Figure 5. Further review of research showed that the several factors tended to group themselves into four tourism-recreation development zones. Several of these would depend greatly upon forest management policy.

A. Caddo Lake Vacation Center
B. El Camino Real Recreation Area
C. Big Thicket
D. Raven Recreation Area

Figure 6. Another application of techniques of assessing tourism-recreation potential--a 20 century portion of south-central Texas. Although this is not a natural physical or political grouping of counties, it provided ample variety for experimentation. It is readily accessible from population concentrations of Dallas-Fort Worth, Houston-Galveston, Corpus Christi and San Antônio.

Figure 7. Maps illustrating the basic assessment technique for each of nine physical factors. Map A shows the hand-drawn areas where the factor "water-waterlife" is of different strength in support of the "touring" category of tourism-recreation. Values were obtained from the scale and index of Tables 2 and 3. Map B illustrates a conversion of this to a computer map using the SYMAP program.
A. Hand-drawn map

B. Computer map

Figure 8. Composite maps resulting from aggregating the several factors important to tourism-recreation development. The ten computer symbols have been reduced to five for easier interpretation.

A. Touring tourism-recreation potential

B. Destination tourism-recreation potential

Figure 9. From the computer maps and the research data, a study team in cooperation with local input can create concepts for future development. For this experimental region, A shows a concept of areas with greatest touring tourism-recreation potential. Part B illustrates zones with greatest potential for the development of destination tourism-recreation. With this information, local interests and forest managers can take further steps toward planning, developing and managing tourism-recreation.
<table>
<thead>
<tr>
<th>FACTORS</th>
<th>ASSETS FOR TOURISM DEVELOPMENT</th>
<th>LIABILITIES FOR TOURISM DEVELOPMENT</th>
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<tbody>
<tr>
<td><strong>PHYSICAL FACTORS:</strong></td>
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<tr>
<td>1. water, waterlife</td>
<td>95 miles Gulf coast; 9 major rivers; 8 reservoirs. Good quality.</td>
<td>Because reservoirs were created for other purposes, recreation uses have low policy priority. Occasional local pollution.</td>
</tr>
<tr>
<td>2. vegetative cover, wildlife</td>
<td>Some portions forested; good game and wildlife habitat; varied wildlife for both game and esthetics.</td>
<td>Sometimes, but rarely, mosquitoes and snakes become troublesome.</td>
</tr>
<tr>
<td>3. climate, atmosphere</td>
<td>Temperature, sunniness, winds are generally supportive of all-season tourism. Precipitation supportive of indigenous plant materials.</td>
<td>High summer temperatures, occasional coastal hurricanes, prevailing high humidity may reduce potential of some activities in some seasons.</td>
</tr>
<tr>
<td>4. topography, soils, geology</td>
<td>Two topographical regions provide good settings: north central plains and coastal plains. River corridors and uplands offer interesting topography. Most sites suited to building and addition of plants. Rock geology offers interest.</td>
<td>Flat lands often unesthetic. Some clayey soils in coastal plains are poorly drained. Not all areas are supported by good aquifers.</td>
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<td>5. history, ethnicity, archeology,</td>
<td>A few important archeological sites; several Spanish mission sites. Contains the site of the beginning of war between Texas and Mexico. Civil War sites and many ethnic concentrations. Generally have not been developed.</td>
<td>Sites are not widely distributed—tend to be concentrated in few places.</td>
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<td>legends</td>
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<td>6. esthetics</td>
<td>Primarily attractive in spring (wildflowers, forests, flowering trees, grasses). Waters and occasional rolling topography provide natural beauty.</td>
<td>Esthetic assets are greatly localized—not widespread. Some cities are very unattractive.</td>
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<td>FACTOR</td>
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<td>7. Institutions, industries, attractions</td>
<td>Industry and agriculture provide foundations for attractions. Several state parks and a few commercial attractions already draw interest. Some events are popular.</td>
<td>Few industries and agricultural sites have been developed for visitors. Other attractions are sparse.</td>
</tr>
<tr>
<td>8. service centers</td>
<td>The region appears to have an adequate number of quality service centers with sound infrastructure. Austin and Victoria seem to be best prepared for tourists.</td>
<td>Most of the medium or small sized cities show little evidence of orientation to tourists.</td>
</tr>
<tr>
<td>9. transportation and access</td>
<td>An effective highway system provides both access to the region and internal circulation. Two airports offer commercial passenger service. Gulf coast harbors are not utilized greatly but are available for tourist use.</td>
<td>Amtrak is not yet effective. Many highways require landscape improvement. Many access points tend to diffuse the importance of a regional identity. Few bus tours now travel the region.</td>
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<tr>
<td>PROGRAM FACTORS:</td>
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<tr>
<td>1. markets and promotion</td>
<td>Two prime markets provide strong support: in-state, out-of-state. 42% of Texas population lies within 100 mi. radius including 10 SMSAs. There is evidence of strong travel propensity among these markets. Some advertising and promotion, especially in the large cities is produced.</td>
<td>Existing populations generally have low understanding of tourism attractions in the region. Tourism promotion is generally very low in most smaller cities, with a few exceptions.</td>
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<td>2. information, direction</td>
<td>The region is well-described in Texas, Land of Contrast. Publications of the DTA, TTDA and TDHT include information on the region. Some local sources have information. Highway signs assist.</td>
<td>Attractions are not sufficiently described in available publications. Local and county highway tourist maps are scarce. Better signage is needed.</td>
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<tr>
<td>3. socio-environmental</td>
<td>Few fragile environments exist. Most areas seem to accept tourism and are hospitable to tourists.</td>
<td>Some environments, such as the Gulf coast, show signs of development abuse, especially esthetically. At least two counties express opposition to tourism growth.</td>
</tr>
<tr>
<td>4. implementing agents</td>
<td>Councils of government, river authorities, city governments, county governments and several state agencies have the power to assist in the guidance of tourism development. Many non-profit organizations, such as historical societies, are active in development.</td>
<td>No overall tourism-oriented organization or agency exists for this region. Many areas place low priority in programs of tourism development.</td>
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