Environmental Interpretation Program for People with Disabilities

EARTH COUNCIL

PROJECT ON ACCESSIBILITY TO PROTECTED AREAS OF PERSONS WITH DISABILITIES

EARTH COUNCIL. PROJECT ON ACCESSIBILITY TO PROTECTED AREAS OF PERSONS WITH DISABILITIES

1-DISABILITIES 2-INTERPRETATION OF PROTECTED AREAS 3-ENVIRONMENTAL EDUCATION

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ACKNOWLEDGMENTS

PRESENTATION

The Earth Council and the State of Costa Rica, through the following institutions: the National Council of Rehabilitation and Special Education, the Ministry of Environment and Energy, the Citizens Defense Council, and the Technological Institute of Costa Rica, have joined their efforts in order to design the first protocol in the world on accessibility for people with disabilities to protected areas. Its objective is to provide a series of instruments directed towards guiding, recommending and facilitating the access of people with disabilities to protected areas.

The protocol is divided into ten handbooks that may be used jointly or separately, according to the reader's interest. The subjects developed are the following:

1- GUIDE FOR MAKING AN ACCESSIBILITY DIAGNOSIS
2- GUIDE FOR CARRYING OUT AN ACCESSIBILITY PLAN
3- GUIDE FOR THE INTERPRETATION OF PROTECTED AREAS FOR PEOPLE WITH DISABILITIES
 4- GUIDE FOR THE ACCESS TO PHYSICAL SPACE (design and materials)
5- GUIDE FOR SIGNALING, INFORMATION AND COMMUNICATION
6- GUIDE FOR PREVENTION AND SAFETY
7- GUIDE FOR CHILDREN AND ADOLESCENTS: A MULTI-SENSORY POINT OF VIEW OF OUR NATURAL SURROUNDINGS
8- OPENING THE DOORS TO PROTECTED AREAS
9- ACCESSORIES FOR TECHNICAL AIDS
10- SUSTAINABLE DEVELOPMENT AND HUMAN RIGHTS OF PEOPLE WITH DISABILITIES

The Guide for Environmental Interpretation for People with Disabilities in Protected Areas is comprised within the general objective of the project, which seeks to *"cooperate with and ensure equality of opportunities for people with disabilities, through the elimination of access barriers in parks and other protected areas"*.

Specifically, it seeks to *"create a Guide for Environmental Interpretation directed to people with disabilities, so that they can have access and overcome obstacles, in order to make the value, knowledge and importance of natural resources and their interactions accessible within national parks and other protected areas"*.

We hope that this effort helps open the doors to protected areas.

Rodrigo Jiménez
Project Coordinator
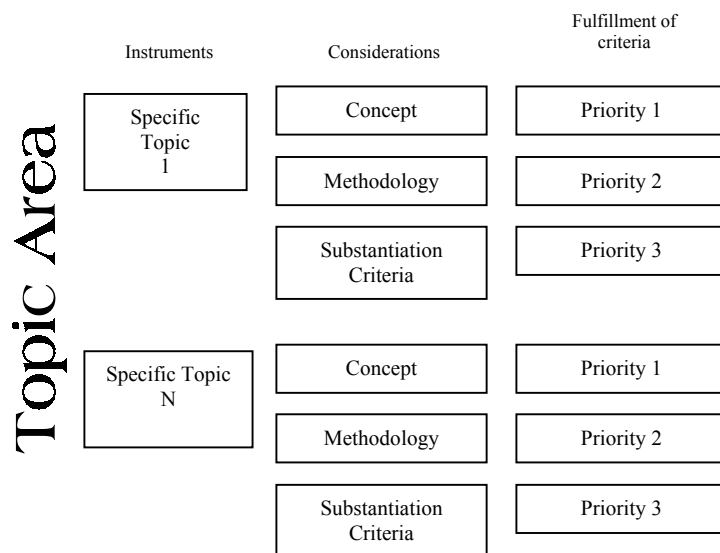Accessibility to Protected Areas for People with Disabilities

INTRODUCTION

The activities that must be developed in the field of environmental interpretation in order to guarantee the access to physical spaces for people with disabilities, merit a practical and agile process. This is the reason for having chosen the format outlined in the "Guide for Better Ecological Tourism Practices in Protected Areas", elaborated by the Regional Environmental Program for Central America (PROARCA) in 1998, under the guidance of Ana L. Baéz, renowned international consultant on ecological tourism.

The methodology implies the identification of subject areas, each of which takes into consideration a series of specific issues called instruments. Each instrument is explained considering its conceptual aspect, its methodology and its substantiation criteria, which show the main actions that must be carried out. From the point of view of presentation, there are two kinds of symbols to facilitate the use the document. The first kind is composed by shapes, books and pencils. Shapes are used when concepts are involved, books for methodology, and pencils for substantiation criteria. The second kind of symbols was established according to the level of priority of each criterion: hands for first priority (high), diamonds for second priority (medium), and dots for third priority (low).[1]

The following is a graphic containing the format described above.

Graphic No. 1

"Format of the Guide on Best Practices of Ecotourism in Protected Areas"

	Instruments	Considerations	Fulfillment of criteria
Topic Area	Specific Topic 1	Concept	Priority 1
		Methodology	Priority 2
		Substantiation Criteria	Priority 3
	Specific Topic N	Concept	Priority 1
		Methodology	Priority 2
		Substantiation Criteria	Priority 3

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[1] Taken from PROARCA, 1998.

The original format has been adapted so that it fulfills the needs related to the information required by the subject. The difference is in the incorporation of a new element to the outline: procedures. Procedures are mechanisms for implementing instruments, and they have been developed in their conceptual, methodological and substantiation aspects. Since all substantiation criteria are essential for guaranteeing physical and informational access to people with disabilities, the assessment of priority in substantiation criteria has been omitted.

Graphic No. 2

Adapted Format of the "Guide on the Best Practices of Ecotourism in Protected Areas"
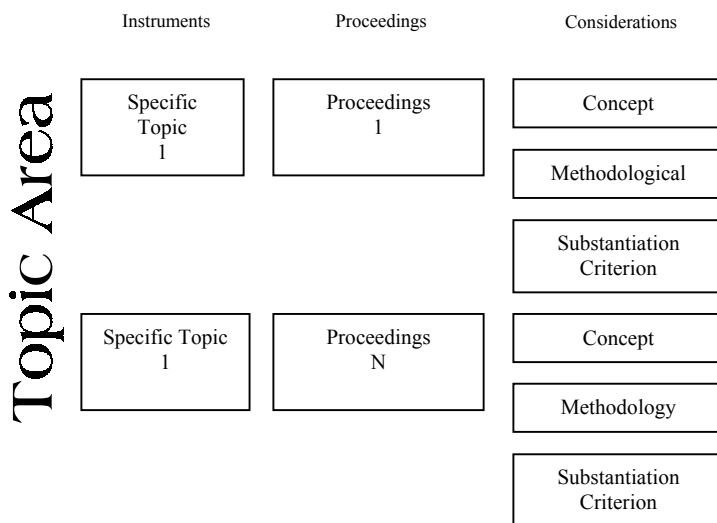
The following document does not intend to exhaust all the viable and available options for facilitating the access of people with disabilities to protected areas. This text is merely a reference or guide through which the personnel in protected areas may obtain feedback for their work. It is focused more towards a practical perspective than towards theoretical or methodological aspects.

Environmental Interpretation Program for People with Disabilities

Subject Area: Environmental Interpretation Program for People with Disabilities

Instrument	Conceptualization
Environmental interpretation of paths	There are many definitions of the word 'interpretation'. The following are some of them: *"At first sight, the sense in which this word is used in the fields of conservation and protected areas is not very related to the meaning given by the dictionary. However, one of the existing definitions is 'to translate the language of nature to the language of human beings'"*[1] *"Interpretation is a service for the visitors of parks, forests, refuges, and similar national recreation areas. Although visitors arrive in these areas in order to benefit from rest and inspiration, they might also want to learn about the area's natural and cultural resources. These resources comprise geological processes, animals, plants, ecological communities, history and human prehistory. Interpretation is the communication that connects the visitor to these resources".* [2] Some of the benefits that interpretation in protected areas provides are[3]: o Contributing with the enhancement of the visitor's experiences. o Raising consciousness in visitors about their place in the environment, and giving them a better understanding of the complexity of coexisting with that environment. o Widening the visitor's horizons beyond the limits of the park, where there is a better understanding of the totality of natural resources. o Informing the public, since a well-informed public may make wiser decisions about aspects related to the management of natural resources. o Reducing unnecessary destruction of the park's property, resulting in lower maintenance and restitution costs. o Providing the means to subtly move people from sensitive areas to places that can handle human impact better, thus protecting the environment.

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1 Taken from CATIE. Module C, 1980, p. c1-2.

2 Taken from CATIE, Sharpe, 1981, p. 1.

3 Taken from CATIE, Sharpe, 1981, p. 3.

Subject Area: Environmental Interpretation Program for People with Disabilities

Instrument	Conceptualization
Environmental interpretation of paths Continued	o Inspiring in the visitor a sense of pride about his country, or his region's culture or heritage. o Assisting the successful promotion of parks where tourism is essential to the economy of an area or country. o Motivating the public's interest in acting towards the protection of their environment in a sensible and logical way. Environmental interpretation is directed towards the visitors, who have many similarities and also differences. The greater part of interpretation takes for granted an audience that is homogeneous in characteristics such as educational and cultural background, mental and physical ability, language, age, place of origin, and objectives of the trip. Sometimes, people with physical and mental limitations, senior citizens, children, ethnic minorities, and people with educational limitations, are left out. When elaborating the interpretation of a path, it is necessary to choose mechanisms that can promote the access to the resource and the information for this forgotten public.[1] The former concept about the kind of audience towards which environmental interpretation must be directed, is a paradigm with specific characteristics. These characteristics are established by those who have greater power in society, and discriminate due to age, gender and abilities. Thus, the interests of children and senior citizens are ignored. These forgotten audiences are the ones who do not fit in the average population considered in traditional environmental interpretation programs. They are those people who require adequate conditions for physical and informational access. The environmental interpretation of paths for people with special needs does not refer to the use of techniques different than those for any other audience. However, it places particular emphasis on eliminating social, architectural, transportation, communication and environmental barriers, so as to guarantee the enjoyment and knowledge of the resources present in the area, in a safe environment. Thus, it is necessary to adapt the design of the path to mobility needs, interpretation channels, and communicational challenges. This way, the environmental interpretation of paths directed towards people with disabilities, as to mobility and communication, guarantees the right of access, not only to the resources present in the path and its information, but also to key elements in the quality of human life, such as education and recreation.

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1 Adapted from CATIE, Sharpe, 1981, p. 35

Subject Area: Environmental Interpretation Program for People with Disabilities

Instrument	Methodology
Environmental interpretation of paths	There is a lot of bibliography oriented towards planning the interpretation of a path. The application of these guides is valid for interpreting paths for people with disabilities, if physical access and communication channels are adapted for each audience.

For the purpose of this protocol, several methodologies have been analyzed, and 7 steps have been selected and adapted to facilitate the interpretation of paths for people with disabilities. However, this does not mean that other bibliographical references cannot be used.

Step 1: Inventory of resources
Step 2: Evaluation of the site
Step 3: Selection of the audience
Step 4: Selection of the message or subject
Step 5: Tracing and design of the path
Step 6: Interpretative means
Step 7: Guidance techniques for people with disabilities.

Bibliographical References:
- o Ham, Sam. 1992. Environmental interpretation: a guide for people with great ideas and small budgets. North American Press. Golden, Colorado, U.S.A.

- o RARE. 2000. Center for Tropical Conservation. Handbook for creating low-impact paths that generate profits and promote consciousness-raising. RARE CENTER, Arlington, Virginia, U.S.A.

- o WWF. 1999. How to interpret natural and historical resources. Program for Central America and the Caribbean. Turrialba, Costa Rica.

Subject Area: Environmental Interpretation Program for People with Disabilities

Instrument	Substantiation Criteria
Environmental interpretation of paths	The environmental interpretation of a path for people with special needs must ensure: • The absence of attitude, social, transportation, architectural, or environmental barriers, for the access to resources or information. • The enjoyment and knowledge in situ of natural resources. • Journeys that respect the safety and integrity of people. • Interpretation resources to allow the understanding of the natural and cultural interrelationships that take place. • The satisfaction of the multiple necessities and situations of all people. • Fostering of a maximum of autonomy in the visitors, avoiding dependency. • Not attempting against people's dignity. • Safety for all users. • The possibility of use and enjoyment by all kinds of clients. • Personnel trained to fulfill the needs of the different populations (people with disabilities, senior citizens, etc.)

<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities

Procedure	Conceptualization
1. - Inventory of resources	This stage is also called interpretative inventory. Each site interpreted is unique. Due to this, an inventory of resources must be made for each path that will be analyzed. Enough data must be gathered in order to develop a complete and exact description of the place. The inventory must be based on exact information. The inventory is used for identifying and locating natural and cultural resources that are meaningful to the interpretation of the area's history. Each area has a natural history. Also unique entities, fragile or irreplaceable objects, rare species of animals or plants, ecological relics, or geological processes, may be found and interpreted. These meaningful terrestrial and marine resources, as well as the evidence of human activity, must be located, identified and described.[1]

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1 Adapted from CATIE, Sharpe, 1981, p. 6

Subject Area: Environmental Interpretation Program for People with Disabilities

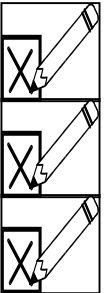| Procedure	Methodology
1. - Inventory of resources	Deliberate observation and research are the only means to get to know the site. Besides describing the site in detail, it is necessary to know about its potential, and answer the following questions:[1] • Why did you choose the site? • What is its importance, nationally or internationally? • What kind of ecosystem does it represent? • Does it provide a habitat for an important animal or plant? In order to carry out the inventory, the following resources may be used, among others: • Maps or geological and marine charts, marking special characteristics in a map profile when possible. • Aerial photographs (in some areas, satellite data are available). • Relevant legislation of the site. • Literature, bibliography or history published about the site or its nearby areas. • Archaeological and literature collections. • Direct field observations, be it by climbing, swimming, or walking in the site with a notebook and photography or video cameras. • Interviews with professionals, members of the community, tourist agencies, personnel in the area, local guides, etc. • Decree of establishment of the protected area.[2] • Management plans. • Public use plans. • Inventories of flora and fauna. • Brochures from travel agencies. • Marketing strategies. • Regional development plans. • Relevant laws about the management of protected areas. • Natural or cultural history of the region or area. • State or local government monographs. • Technical and economic feasibility studies. • Environmental impact evaluations. On preparing the inventory, the way in which resources were used at a local level, the degree of accessibility for the different populations, the economic profits, the exploitation methods, the value of the resource, and its added value, must all be researched.

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1 Taken from WWF, 1999 p. 5

2 Taken from Rare, p. 85

<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities

Procedure	Substantiation Criteria
1. - Inventory of resources	In the end, the inventory will be composed by different information, among which the following items will stand out: • Interesting resources related to geology, climate, geography, hydrology, diversity of flora and fauna. • Presence of permanent and seasonal watercourses. • Historical and current human impacts on the site. • Archaeological sites. • Small-scale, medicinal and commercial use of the resources. • Natural history of the most representative species in the protected area. • Migrating and permanent animal species. • Human use and economic value of the resources. • Climate and meteorological phenomena. • Political issues concerning the site. • Relationship of the local population with the protected area and the conservation of nature. • Degree of accessibility for the different populations. Bibliographical Reference: ○ RARE, Center for Tropical Conservation. Handbook for creating low-impact paths that generate profits and promote consciousness-raising. RARE CENTER, Arlington, Virginia, U.S.A. This document provides a detailed list of questions that must be made when carrying out an interpretive inventory (about wildlife, conservation, use of natural resources, differences between local and foreign ecosystems) and how they can help the visitors. It may be used as a guide to perform the inventory of resources. It is also possible to develop other questions additional to this list, or to eliminate those that do not apply to the site being studied.

<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities

Procedure	Conceptualization
2. - Evaluation of the site for the access of people with disabilities	This phase enables the analysis of terrain conditions, in order to determine the feasibility of constructing a path that has no architectural or environmental barriers to hinder in situ enjoyment and knowledge about biodiversity and other natural resources, and which guarantees the safety and integrity of the visitors.

<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities

Procedure	Methodology
2. - Evaluation of the site for the access of people with disabilities	In all the bibliography about environmental interpretation, no reference was found about terrain assessment for the access of people with special needs. The following are some suggested reference questions for the analysis of the site: • Are there any venomous and/or thorny plants? Which are their risks? • Which places are dangerous? • Is there a possibility of constructing a path with a hard surface (cement, wood, etc.), without interruptions, and with a minimum width of 1.52 meters? • What is the distance between the park and the entrance to the parking lot, the visitor center, or the park entrance? • Is the average slope of the path equal or inferior to 1:10? • How many drops are there? • Are there plants whose seeds or leaves may fall on the path? • Are there dangerous animals? What are their risks? • Are there aromatic plants? • Is it possible to build a path that covers different distances, and that permits one to turn back along the journey? • Are there elements that limit the use of the path during some times of the year? • Is it possible to build roundabouts for turning back and rest stops along the path? This implies that some parts of the path will have minimum widths of 2.5 meters. • Can the path be used by groups? • What is the degree of effort required from the visitors? • Is there a possibility of identifying sites of interest where a space to stop and observe can be constructed?

Subject Area: Environmental Interpretation Program for People with Disabilities

Procedure	Substantiation Criteria
2. - Evaluation of the site for the access of people with disabilities	The evaluation of the terrain must have the following characteristics, among others: • Average slope of 1:10. • Possibility of constructing stretches covering different distances. • At least one of these stretches must allow for the construction of continuous hard surfaces. • Possibility of constructing a path with a width of at least 1.52 cm. • No sites that endanger people's physical integrity. • Stations that encourage the use of different senses: taste, touch, sight, hearing and smell.

<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities

Procedure	Conceptualization
3. - Selection of audiences with different interests and needs	The visitor is the main reason for an environmental interpretation program. The public is a diverse group, and interpretation directed towards one group of visitors may not be effective for another group. Whenever possible, the efforts must be varied in order to satisfy the different interests, ages and effort levels of the visitors.[1] Gender, culture, abilities, etc., must not be left out. Understanding individual behavior and the influence of the group on conduct is especially important for the personnel carrying out the interpretation. Effective interpretation requires an elaborate knowledge about the clients towards whom the message is directed, so that appropriate meanings can be used to increase interest and transmit information.[1] Knowing the audience will enable knowing the needs as to mobility, information, attention, comprehension and displacement of the people towards whom the path is oriented. When working with audiences composed by people with special needs, one must consider that disability is not a limitation; it is just another condition of the human being. At some point in their lives, all people go through some situation in which their mobility or their capacity to communicate is altered to a higher or lesser degree, permanently or temporarily. Thus, these *"special needs"* are not something foreign that only happens to "others". At any moment, one can be a client requiring accessible services and facilities. [2] Accessible facilities are not only devised to ensure the right of enjoyment of the population with disabilities, but they also benefit all the different populations that have been traditionally discriminated. Taking into consideration only the factors that influence the capacity to perform and communicate, a diversity of situations that can occur, and which also determine the different needs for each client, are generated. [2]

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1 CATIE, Sharpe, 1981 p. 4.

2 Royal Prevention Bureau, 2000 p. 10.

<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities

Procedure	Methodology
3. - Selection of audiences with different interests and needs	The following questions must be taken as a reference in order to identify the public:1 • Who are the clients we work for? • Why do they come to the protected area? • How can we adapt our programs to satisfy the interests of the different populations? Traditionally, data related to the potential users have been considered essential to the selection of the audience; these data include age, gender, origin, interests, educational level, annual income, time of vacation, recreational activities, among others. This has led to the identification of "average audiences", towards which interpretation is directed. However, when orienting efforts towards audiences with disabilities, it is essential to consider those elements that facilitate the access to the enjoyment and in situ knowledge of biodiversity and other natural resources, such as communication and movement challenges.

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1 CATIE, SHARPE, 1981, p. 12

Subject Area: Environmental Interpretation Program for People with Disabilities

Procedure	Substantiation Criteria
3. - Selection of audiences with different interests and needs	Interpretation activities must be oriented towards satisfying the needs of audiences with communicational or movement challenges[1], and diversities as to population, gender, culture, disability, etc. [2] *Ambulant people:* It is composed by people who have difficulties in walking safely, and who may require or not the use of canes or crutches that allow them to maintain equilibrium. Their reduced physical ability makes them walk slowly and with limited stability. For example, all of them have problems going up and down stairways, walking on a slippery surface, sitting or rising from a chair, and walking long distances. This group also includes senior citizens. *People in wheelchairs:* Integrated by those people who can't walk and thus use a wheelchair for displacement. Depending on their state, they will require or not the aid of another person to propel the chair. Those people who have a physical disability such as a brain injury that impairs their ability to walk, are included in this group, as well as those people who choose to use a wheelchair temporarily in order to avoid exhaustion, such as elderly people. Some of the difficulties arise when passing over slopes or very brusque drops, passing through tight spaces, traveling on paths, propelling wheelchairs along non-paved spaces, maneuvering in reduced spaces, looking at signs placed at high spots, manipulating objects, etc. *Temporary needs:* This group is composed by all those people who, during a temporary period of their lives, require special mobility and communication needs. Among these, we include pregnant women, small children, people who have suffered an accident or have an illness, and whose physical condition impairs their free movement.

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1 Royal Prevention Bureau, 2000 p. 8 – 13

2 See Guide for Making an Accessibility Diagnosis

<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities

Procedure	Substantiation Criteria
3. - Selection of audiences with different interests and needs	*People with sensory impairments:* It is formed by all those people who have different degrees of partial or total, sight or hearing impairment. The kind of difficulties confronted by people with visual impairments relates to communication: reading, orientation or performance (recognizing a route or manipulating an object), and safety (not detecting dangerous areas). People with hearing impairments face problems in situations of communication and context interpretation. On occasion, a multi-sensory impairment called deafblindness, which combines visual and hearing disorders, appears and causes communication difficulties. *People with mental retardation:* It is a group formed by those people who present an intellectual development that does not correspond to their age. What these people have in common is that, at some given times, they might have difficulties in communication, self-expression, and orientation in situations that are not familiar, or behave in a way that is not expected for someone their age. It is characterized by an intellectual functioning significantly inferior to the average, along with limitations related to communication, language and, in some cases, mobility. *Multiple disability:* (…) individuals of all ages who require ample and continuous support in one or more daily-life activities, in order to participate in integrated community scenarios, and to enjoy the quality of life that citizens have(…). This support may be necessary in daily-life activities such as movement, community, self-care, and learning, and for actions as essential to an independent living as are a job and self-sufficiency.[1]

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1 Lindley, 1990, p1
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<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities

Procedure	Substantiation Criteria
3. - Selection of audiences with different interests and needs	*Emotional and behavioral disorders:* It is a group integrated by those people with a limited development in social interaction and communication, with a reduced repertory of activities. Behavioral or emotional disorders are mainly characterized by a pronounced communicative challenge, reiteration of the message, and little interest in new activities, among others. *Cerebral palsy:* It is formed by all those people with an irreversible injury in the central nervous system that affects the motor centers of the brain, which makes it difficult for them to have voluntary control over some part of their bodies. It may be related to other conditions such as visual and hearing impairments, and communicative and cognitive challenges. *Psychomotricity:* It is integrated by a group presenting special conditions in general body coordination, locomotion, and certain specific motor abilities that affect the individual's intellectual area and social development.

Subject Area: Environmental Interpretation Program for People with Disabilities

Procedure	Conceptualization
4. - Selection of the message	The message is the information offered to the visitor. Its function is joining the different elements present in the area. "Interpretation not only implies showing features of natural history to the visitors. Neither does it consist of detecting and identifying birds and other wildlife species, or knowing the history of the protected area. Interpretation is independent from the contents given to the visitors. The WAY in which the information is presented is what's important. By this, we mean that everything that is provided (ecological concepts, identification of wildlife, conservation history) is packaged within a "message".[1]

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1 Rare, 1999, p. 263.

Subject Area: Environmental Interpretation Program for People with Disabilities

Procedure	Methodology
4. - Selection of the message	In order to identify the message, we suggest the following steps:[1] *1. - Analysis of the information gathered:* Keeping in mind that interpretation must help the visitors to discover the meaning of what they are observing, which is why one must avoid excessive though interesting details that are difficult to feel, smell, touch, taste or see. *2. - Identification of the most special features:* Whenever possible, unique features or themes must be identified. Do not choose features that are commonly interpreted. *3. - Definition of the main theme or message:* Choosing a theme that works as a connecting thread throughout all stations, and that conveys to the public the importance and function of the site in the country and region. This will be the message that you hope the visitor learns or remembers once the path is traveled.

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1 Proarca, 1999, p. 5-6.

<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities

Procedure	Substantiation Criteria
4. - Selection of the message	The message must have the following characteristics, among others: • It must be formed by one simple, brief and complete phrase. • It must contain one single idea. • It must be believable. • It must be specific. • It must be interesting and motivating[1].

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1 FAO/PNUMA, 1992, pág 94

Subject Area: Environmental Interpretation Program for People with Disabilities

Procedure	Conceptualization
5. – Tracing and design of the path	*Tracing* With the information from the inventory of resources, the evaluation of the site, the selection of the audience, and the message, a map or tracing of the path can be made. When tracing a path for people with disabilities, one must consider that not all people have the same physical conditions, and not only because of their age. This means that not all visitors have the same agility, physical resistance, height, weight, strength and dexterity. Thus the tracing of the path must facilitate its use for all people, and not only for those who correspond to a standard pattern of physical conditions. *Design[1]* For the design of the path, the essential principles of universal design must be taken into account. This is a worldwide movement based on the concept that all products, spaces and communications, must be designed considering the needs of a great range of users.

1 Information about the design of access and mobilization facilities in paths is presented in the Guide for the Access to Physical Spaces (design and materials).

Subject Area: Environmental Interpretation Program for People with Disabilities

Procedure	Methodology
5. - Tracing and design of the path	In order to develop the map of the path, the sites to be interpreted must be selected. These must give the visitors a chance to learn about the resources of the protected area. So, when deciding where to make the interpretive stops, it is necessary to select those places where ther is something to see, smell, hear or feel[1]. Also, places that threaten the safety and integrity of the users must be avoided. In order to trace the path, the aspects of methodology and substantiation criteria of the procedures presented above must be considered The most recommended style for tracing paths is the one that forms a complete circle, so that the visitor must not turn back along the same road. However, one in the shape of an eight is also recommended, especially for those users that wish to make shorter journeys. The path may be shaped in this manner, and different distances that can be used by the visitors according to their limitations and interests can be obtained. Meanwhile, those visitors with greater physical resistance can cover longer distances. This way, a hard surface can be built for some stretches (for people with ... and g... rth surfaces for others (for thos... present th... s). First stretch Second stretch Third stretch

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1 WWF, 1999, p 50

<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities
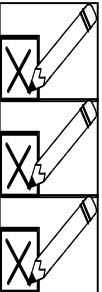
Procedure	Methodology
5. - Tracing and design of the path	***Tracing*** When tracing a path for interpretation, among other things, it must include the following:[1] - Elements that awaken the curiosity of the visitor. - Rare or unique aspects of the site. - Materials, specimens or events that are common but rarely discussed: rocks, birds or common plants. - Problems caused by human intervention: erosion, felled forests, fires, and destruction of the habitat. - A place where the management of resources is illustrated. - Evidence of human groups in ages past. - Habitat of animal species. - Signs of animals: trails, prints, bathing areas, wallowing places. - Plants or animals with an important local value in medicinal, combustible, construction, or cultural aspects. - Seasonal phenomena. - Area illustrating local geology or ground structure. ***Design[2]***

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1 WWW, 1999, p. 52

2 Information about the design of access and mobilization facilities in paths is presented in the Guide for the Access to Physical Spaces (design and materials).

<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities

Procedure	Substantiation Criteria
5. - Tracing and design of the path	*Tracing* All tracing of paths oriented towards people with special needs as to mobility and information, must have the following: - Representative sites as to geological, natural, cultural, human, climatic, hydrologic, and other resources present in the area. - Places where visitors may use their sense of touch by touching different elements. - Places where visitors may use their sense of smell on aromatic plants. - Places where visitors may use their sense of hearing with nesting areas. - Places where visitors may use their sense of sight on landscapes or panoramic views. - Places where visitors may "try out" different elements through the sense of taste. *Design[1]* All design of paths for people with special needs as to mobility and communication, must respect the principles of universal design: 1. Equal use 2. Flexible use 3. Simple use 4. Perceptible information 5. Tolerance to mistakes 6. Low physical effort 7. Appropriate size, scope and use

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1 Information about the design of access and mobilization facilities in paths is presented in the Guide for the Access to Physical Spaces (design and materials).

<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities

Procedure	Conceptualization
6. – Selection of interpretive means	They are the resources, methods, mechanisms or instruments through which the interpretive message is presented to the public. There is a widely divulged classification in the field of environmental interpretation that separates interpretive means into personal or non-persona, and "attended" or "unattended", respectively.[1] ***Personal*** They imply an interaction between the public and a person who is the guide or interpreter. ***Non-personal*** They are those services that do not use personnel directly, but only objects, publications or devices that transmit information.

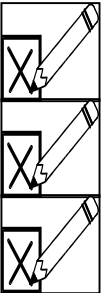1 1 Taken from CATIE. Module C, 1980, p. C2b-1
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Subject Area: Environmental Interpretation Program for People with Disabilities

Procedure	Methodology
6. - Selection of interpretive means	In order to select means of interpretation, one must consider the special communication necessities of the audience. One must take into account that all audiences have different ways of accessing information. In order to select the means, the following questions must be considered:[1] • Does it really transmit the interpretation message in an ideal manner? • Is this mechanism known by the audience? • Does the mechanism require a person to operate it? • Does it require electricity? • Can it be easily attacked or stolen? • Would maintenance be a problem? • What effects would the weather have on it? • Would it sustain continued use? • Can a substitution be easily made? • Is it replacing something that has already been used? • To what kind of audience is it mainly directed? • Have interpretive researches discovered something about the effectiveness of this means? • How much will the interpretive means cost? • If high visibility is needed, can the environment provide it? • Will the public accept it, or will they think it extravagant and alien? • What effect will it have on the visitor, and the visitor on it? • What effect will the interpretive means have on the environment in which it will be used? For information on how to develop interpretation means, consult the Guide for Signaling, Communication and Information for the Access of People with Disabilities to Protected Areas.

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[1] 1 Taken from CATIE. Module C, 1980, p. C3e-1

<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities

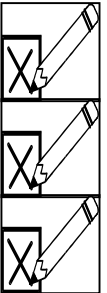| Procedure	Substantiation Criteria
6. - Selection of interpretive means	The interpretive means that will be selected must have the following characteristics, among others:[1] • They must be directed towards as much visitors as possible. • They must make the visitor feel comfortable. • They must take into account the amount of time the visitor has. • They must ensure that they will not induce the visitor to face dangerous or difficult situations. • They must provide variety in order to maintain interest. • They must contain the message that is being transmitted. The interpretive means to be used in a path for people with disabilities must include several of the following: **Stewart Classification.**[2] **Non-personal means:** *1. Signs or labels:* They provide directions, information or interpretation, and they are generally fixed and permanent. For people with partial visual impairment, big letters on contrasting backgrounds must be considered, as well as the perspective produced by light. For those people with total visual impairment, we recommend high relief. It is important to create a tactile or auditive mechanism to indicate those visitors that they are near a sign or label[3]. *2. Publications:* Part of this group is formed by printed information: books, brochures, guides, maps, and posters. For people with visual impairments, the printed items must be in Braille, or have big letters on contrasting backgrounds. In the case of maps, tactile or embossed maps are recommended. *3. Mass media:* This group is formed by radio, television and press (magazines and newspapers). In television, it is advisable to write the message in big letters at the bottom of the screen, over a contrasting background, or to translate the message through SGV (Visual Gestural System) or the sign language used in the place of origin of most users. For the press, the use of Braille is recommended.

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1 Taken from CATIE. Module C, 1980, p. C3e-2
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2 Adapted from CATIE, Module C. 1981, p. C2b-1 / C2b-8
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3 For information on how to develop interpretation means, consult the Guide for Signaling, Communication and Information for the Access of People with Disabilities to Protected Areas.

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Procedure	Substantiation Criteria

6. - Selection of interpretive means	*4. Self-guided paths:*
	These are the paths in which people use brochures, signs, panels, or sound recordings, along a pre-established route. It is not recommended for people with mobility impairments who need the support of other people for their displacement.
	
	5. Automatic audiovisual mechanisms:
	This group includes movies, automatic slide shows, listening posts, portable recorded tapes, and all audiovisual presentations not attended by the personnel. All audiovisual mechanisms must be translated to SGV (Visual Gestural System), to the local sign language, or to the one used in the place of origin of most visitors. If the recorded tapes are directed towards people with visual impairments and it is necessary to activate them at each station, the places to do so must be indicated by tactile means or metric measurements.
	
	6. Exhibits:
	They are objects or collections exhibited in a presentation, generally illustrating or explaining a subject partially. They are used both indoors and outdoors. They must have elements that employ all senses; thus, they must incorporate objects that can be touched, smelled, seen, heard and felt.
	
	Personal means:
	
	A. Tours
	  1. Guided tours:
	  They are visits conducted by a guide or interpreter. They follow a route pre-established by those who organize the activities, although the subject and the presentation methods may vary. When there are people with hearing impairments in the group, at least the guide or a chaperone must know CVG (Visual Gestural Communication), the local sign language, or the one used by most people who visit the area.
	
	  2. Tours in motorized vehicles:
	  They are journeys in vehicles, organized by calendar, schedule or itinerary. They are especially devised for people with mobility impairments. It is necessary to make sure that the vehicles have space to transport wheelchairs, or that the seats have the appropriate conditions in order to guarantee stability.

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Procedure	Substantiation Criteria
6. - Selection of interpretive means	**3.** *Tour in non-motorized vehicles:* These are groups of cyclists or horse-riders, visitors in canoes, rowboats, etc. It is necessary to guarantee the physical safety of all people by using special aids (life-saver jackets, adequate chairs), and also the space to lodge wheelchairs must be ensured in the case of aquatic vehicles. **B.** *Audiovisual mechanisms attended by the personnel* Presentations in which the interpreter may be present in order to explain or answer questions, or in which he or she may use an audiovisual method. This includes lectures with short movies, slides, or the use of an overhead projector, a flip chart, and a sound amplifier. In this case, the interpreter or someone who accompanies him must know CVG, the sign language used by the people in the audience, or use white letters on a black background. Audiovisuals must have proper translation, be it to sign language, CGV, or white letters over a black background. The slides and the flip chart must have big letters over contrasting backgrounds. **C.** *Specialized personnel* **1.** *Demonstrations:* Generally developed by professionals who specialize in activities that involve skills such as craftsmanship, making of instruments, manufacturing, etc. **2.** *Development of activities:* It implies the exercising of ability by the public. Some examples are horseback riding, climbing, taking photographs, or any other activity that involves the visitor in an active participation. These must guarantee the public's physical safety and dignity. **3.** *Conferences:* They are given by an expert who comments or narrates his experiences in several styles, or translates his knowledge into a language that is comprehensible for the public. There must be a translation to CVG, or to the sign language used at the public's place of origin. If any audiovisual aid is used, it must also be translated, or the texts must be written on the screen over contrasting backgrounds.

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Procedure	Substantiation Criteria
6. - Selection of interpretive means	**D.** *Animation:* **1.** *Passive animation:* A person "interprets" —in a theatrical manner— a daily activity, generally folkloric, dressed as the character he represents. The idea is to relive facts and traditions, without the participation of the public. **2.** *Active animation:* It refers to activities that include the participation of the public, where they must use previous knowledge, or that acquired during the visit to the area. They are simulations, environmental games, theatrical representations, or the use of instruments with a recreational objective rather than to obtain skills. **E.** *Casual services:* They include three kinds of services: information, reception, and spontaneous assistance (in any place and situation), although they are not directly related to environmental interpretation. These services occasionally fulfill the task of public relations that go beyond a simple delivery of information about restrooms, schedules, etc. In these cases, people must know CGV or the language used in the place of origin of the audience.

<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities

Procedure	Conceptualization
7. - Guidance techniques for people with different interests and needs	They are the procedures that the interpreter uses in order to conduct a guided tour through a path, during which the interpreter transmits —through communication techniques and interpretive means— the message selected for the path. With the help of the interpreter, the visitor can perceive and comprehend the observations better, as the former shows him how the protected area functions as a natural system, or the way it relates to current problems and why it is important. The interpreter adds meaning to the experiences of the visitors.[1] In order to guide people through paths, one must take into account that each disability produces different needs that are a product of different personalities, as happens in any other group; thus, in order to treat people adequately, one must adapt to each concrete case.

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1 WWW, 1999, p. 3
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<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities

Procedure	Methodology
7. - Guidance techniques for people with different interests and needs Continued	There are many indications in order to guide people through paths successfully. The following are some of them[1]: *Before beginning:* - Establish a relationship with the visitors. - Create a realistic and interactive atmosphere. - Get to know the interests, expectations and experiences of the visitors. - Show an interest in the problems of the visitors, including their origin. - Prepare the environment for an active participation of the group. *During the activity:* - Encourage the visitors to ask and explore new ideas. - When there is a question, direct it back to the group in order to see if someone can answer it. - Encourage the visitors to work towards solving problems or answering questions. - When questions arise, provide only some of the information and let the group's imagination do the rest. - If there are any delays, ask the group to help decide how to cover the rest of the activity. - Perceive non-verbal signs about the interest or boredom of the audience. The style must be adjusted to the circumstances. - Maintain direct eye contact with the members of the group. - Take advantage of special situations. Surprising things can be found along the path, such as the presence of animals or rare events that must be taken advantage of and incorporated to the subject. - Have a "plan B" in case of any setback, such as rain. *Closing*: - Summarize the subject. - Challenge the visitors to assume some kind of responsibility related to matters posed during the journey. Conclude the activity with a last memorable phrase or idea.

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1 WWW, 1999, p. 19-24
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<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities

Procedure	Methodology
7. - Guidance techniques for people with different interests and needs Continued	There are some recommendations to be considered when developing an guided interpretation for people with special needs:[1] • Do not underestimate them. • It is not necessary to make the visitor's disability evident. If it is necessary, do it naturally. • Avoid, at all times, making the client's special needs seem evident. • Let them do all they can by themselves. Most of them can perform a great deal of activities, and they like doing things on their own. • Never help them without asking. One must ask naturally if they need help and of what kind, and await the answer. Nobody must feel offended if the help offered is not accepted. When it is accepted, it must be granted discreetly, without drawing the attention of people around, and without commotion or haste. One must not "boast" of being helpful, nor adopt "overprotective" attitudes.

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1 Royal Prevention Bureau, 2000 p. 23
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<u>Subject Area</u>: Environmental Interpretation Program for People with Disabilities

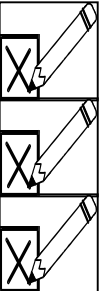| Procedure	Methodology

7. - Guidance techniques for people with different interests and needs	• One must behave naturally during personal contact. Remember that they want to be treated just like other people. Specially make sure of the following:
	    o Do not feel embarrassed when talking to them; do not show concern or excessive earnestness.
	    o Never utter compassionate phrases about their condition. In any case, talk about the disability naturally.
	    o Do not remain in a tense silence, nor utter an inadequate verbal explosion.
	    o Never treat them as "children", but as any other person their age; they are shocked by this kind of behavior, and it may bother them.
	    o Do not give them advice unless they ask for it. Generally, they know very well what they need or want, and can express it in one way or another.
	
	• Talk to the person and not to his companion.
	
	• Show understanding and tolerance before any possible susceptibility. This must apply to all users of the path. It is natural for a person to seem unhappy if their needs and expectations are not fulfilled.

Subject Area: Environmental Interpretation Program for People with Disabilities

Procedure	Substantiation Criteria
7. - Guidance techniques for people with different interests and needs Continued	An adequate treatment must be provided to people with disabilities; thus, the following recommendations must be observed:1 *People with movement impairments:* • Adapt your step to their own as to longitude and velocity. • Protect them from moving crowds. • Offer them help for going up and down stairs. • They occasionally need help carrying backpacks. • Offer them a seat so that they do not remain standing for long. • Do not place technical aids far away, since they are a means without which they cannot move by themselves. It is convenient to avoid that they walk more than necessary. *Wheelchair users:* • Make sure that they do not run into architectural and environmental barriers. • It is important not to feel impressed by the image of a wheelchair; one is simply relating to a person who is sitting down. • Always stand in front of the person you are talking to, never behind them or in a position that forces them to turn around. • Stand at a distance from where they do not have to force their head by raising it. It would be ideal to sit in front of them to be at their level. • If the chair is pushed, care must be taken not to bump into any people, furniture or objects. • Push the chair slowly, especially on slopes. Some wheelchair users do not have good equilibrium, and feel unsafe if they are pushed too fast.

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1 Royal Prevention Bureau, 2000 p. 24-32
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Subject Area: Environmental Interpretation Program for People with Disabilities

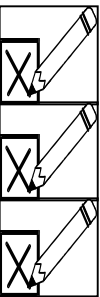| Procedure	Substantiation Criteria
7. - Guidance techniques for people with different interests and needs Continued	In order to drive a wheelchair, the following must be considered: • The most important thing is to follow the user's instructions. He is the one who knows better about how the chair is used, and how he wants to be driven. • Do not jolt, accelerate or brake suddenly. One must advance softly, slowly and in a controlled manner. • Place the brake when you stop. Occasionally, we cannot perceive the slope of a terrain, and the chair might slide by itself. • When the chair must be lifted, you must not lean on it. The bars or handles, which are fixed elements, must be grasped instead of the ones that can be extracted, such as the armrests. When going up or down stairs or isolated steps, one must consider the following: • When going up, push the chair until the small front wheels touch the edge of the step or sidewalk. Then tilt the chair backwards, stepping on one of the bars located in the back, and place the front wheels on the upper level. The back ones are then brought near the edge of the step or sidewalk; the chair is lifted a little, and pushed softly forward. • When going down, push the chair to the edge of the step or sidewalk, tilt it backwards, and lower the big wheels softly to the lower level; then slowly lower the front wheels. *People with limited use of their hands and arms:* Limitations in the use of hands and arms arise depending on the kind of situation or activity being performed. These people need help to carry certain objects, watch them closely or manipulate them.

Subject Area: Environmental Interpretation Program for People with Disabilities

Procedure	Substantiation Criteria
7. - Guidance techniques for people with different interests and needs Continued	*People with hearing impairments:* • Some people use sign language, while others read the lips of the person talking to them. Thus the importance of having trained personnel to guide the group through the path and guarantee a secure and fluent communication. • Since some people have difficulties expressing themselves orally (volume, accent), sometimes they do not want to do it in certain situations. Thus, their participation must be stimulated, but always respecting their final choice. • It is necessary to show, at all times, one's interest in facilitating communication, especially in cases where there is no interpreter. • Use a normal tone of voice; yelling does not help. • Speak normally, not too fast or too slow; this way, people who read lips can know what is being said to them. • The face of the person who speaks to them must be well lighted; the mouth must not be covered by the hand, nor the lips covered by a long mustache or a cigarette. You must remember that they can only read lips or interpret signs that are visible.

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Procedure	Substantiation Criteria
7. - Guidance techniques for people with different interests and needs	- Use short and grammatically correct phrases. - Speak clearly, but without exaggerating or making unnecessary facial gestures. - One can be expressive, but it is not necessary to gesticulate excessively; it may be ridiculous or annoying to people. - If the information is not understood, seek simpler words and repeat as much as necessary. - Avoid isolation and promote their participation. - One can always turn to written information when communication is not clear enough or doubts remain. - Avoid as much as possible for several people to speak at the same time, so they can maintain an adequate level of attention. *Limitations in comprehension:* - Be natural in your manner of speaking; do it simply, with common words. - Always answer their questions, showing interest in the comprehension of your answer. Be patient. - Except in intellectual matters, treat them according to their age, even if their mental development does not correspond to their physical age. - Do not talk about their disability in front of them or ask them about it, in order to avoid hurting their feelings. - Limit the help you provide to what is strictly necessary. One must make sure that they can manage themselves. - If they do not know how to read, or if they have language difficulties, be patient and explain to them whatever they need.