



## **Proposal "Inclusive Reconstruction Plan," Committee of Social Inclusion and Disability,**

### **Universidad Austral de Chile**

Developed by Inclusive Rebuilding Team Univesidad Austral de Chile:

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## Introduction.

### Objectives

**General Goal:** To contribute to the inclusive rebuilding of our country Chile, presenting a series of proposals and a measuring instrument.

**Specific Goal No.1:** To Contribute to the installation of the Inclusive Rebuilding goal as a prominent aspect in the national agenda.

**Specific Goal No. 2:** To Deliver technical inputs for the Inclusive Rebuilding efforts to the authorities and institutions committed to rebuilding Chile.

**Specific Goal No. 3:** To contribute to the establishment of networks towards inclusive rebuilding.

### Background:

Chile has suffered the ravages of an earthquake of 8.8 degrees Richter and a tsunami. Reconstruction of Chile must consider the needs of the entire national population including people with disabilities. We need to react and operate more easily in an emergency not excluding people

with disabilities. The current proposal can be implemented in its various components by the central government, regional governments, municipalities, NGOs, the private sector among others.

The Inclusive Rebuilding Plan will require politic will, networking, justice spirit and to observe the law.

We define Inclusive rebuilding as: ***“the process of build and rebuild public and private spaces, buildings, houses, technologies, procedures, protocols with universal access and universal usage strengthening People with disabilities functionalities. This process uses the “Inclusion Index” and is measured using the “Inclusive Index Calculation Matrix”<sup>1</sup>***

#### **Reasons for the Inclusive Rebuilding:**

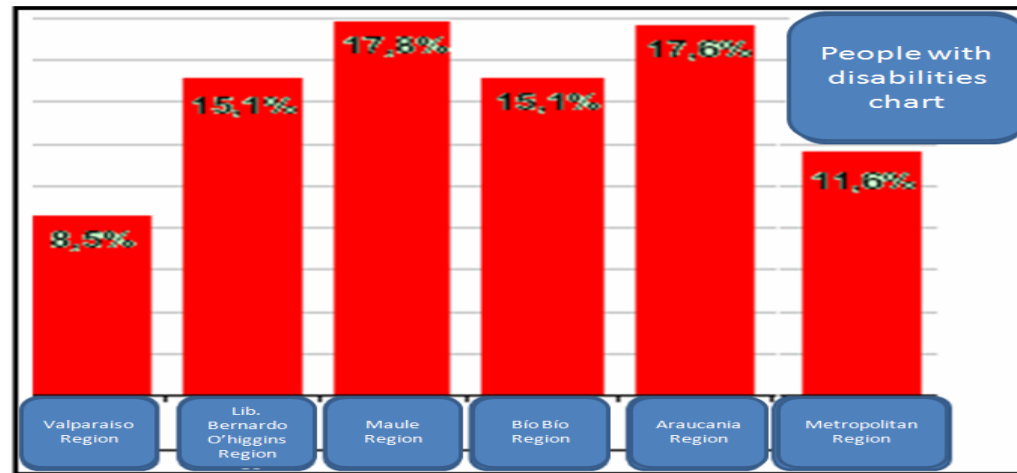
- 1) **Ethic reasons:** justice, equality, freedom, fraternity and the right to seek happiness must rule ever.
- 2) **Juridical reasons:** international treaties such as the Human rights of People with Disabilities Convention, the UN chart, in my country our constitution and laws (law 20.422 also known as “disability law”, construction and building law, consumer law among others) must be followed.
- 3) **Economic reasons:** to give or increase autonomy to People with Disabilities contributes to incorporate them into the productive sector. An economy active person with disability helps to activate economy as a whole, increase the family income and facilitate the rebuilding process.

#### **Human dimension.**

People with disabilities represent an important percentage of population in the affected zones. The following chart show figures breakdown by affected regions.

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<sup>1</sup> A methodology developed by the Universidad Austral de Chile to measure how inclusive a place, a technology or a procedure is.



Source: own production based on Endisc 2004 (First National Study of Disability, Chile)

## Proposals:

### Proposals are divided in 3 stages:

#### I) Emergency and relief

- 1) People with disabilities affected by the earthquake
- 2) Fully accessible emergency communications

#### II) Inclusive rebuilding.

1) Inclusive Index Calculation Matrix

2) public use building and places

- Streets and sidewalks.
- Urban furniture.

### **III) Inclusive response to catastrophes.**

1) Accessible secure zones.

2) Evacuation system.

3) Rescue system.

4) Fully accessible emergency communications.

### **IV) Final recommendations.**

## **Proposal breakdown**

**I) Emergency and relief**

First stage is about emergency and victims relief. Definitive solutions correspond to the stage of inclusive rebuilding.

Nº	Problem	Solution proposal
1	People with disabilities affected by the earthquake <sup>2</sup>	<p>1) To adapt emergency housing (first stage): Users with disabilities must enjoy the greatest possible autonomy in daily activities. Several basic adaptations should be taken into account : door width equal or larger than 90 cm, there can be no steps or differences in height with the ground between the house and the floor (outside and inside level). If a ramp is needed, it should be firm with a proper gradient (see the manual suggests Accessible City Foundation). To adapt the emergency housing, assistance can be asked from different sources such as “Abre” group from Telethon, universities, professional institutes and different volunteer networks. Private companies can help by donating constructions materials.</p> <p>To distribute emergency housing efficiently among people with disabilities in need local government units have a key role. Some local governments have a municipal office for People with disabilities related issues. Emergency housing is a temporary measure and should not become permanent.</p> <p>2) Distribution of emergency technical aids: technical aids are devices that facilitate autonomy and functionality for a disabled person. The emergence makes it unlikely that the municipalities, accredited organizations and clinics can make nominations case by case. It is recommended to deliver technical aids shipments to municipalities and other local accredited institutions for better and faster distribution. It is recommended that the National Disability Service focus its technical aids funds to privilege agreements with the above mentioned institutions to facilitate shipments delivery, it is recommended that the government increase this fund to the National Disability Service. An international purchase of these products and / or to ask international organizations help would ease any possible shortage of technical aids.</p>

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<sup>2</sup> People with disabilities that lost their home and/or technical aids such as wheelchairs.

Nº	Problem	Solution proposal
2	Deficient emergency communications	<p>1 To establish and reestablish concrete emergency communication now: the deaf people community requires that the authority makes official communications with sign language interpreters. It is required that data on web pages can be read by readers software for the visual impaired</p> <p>Authority must respect the people with disabilities' right to get information. It is essential in an emergency, generates public safety and helps to save lives.</p>

Nº	Problem	Solution proposal
3	People with disabilities affected by the earthquake with a very low income	<p>1. It is recommend the delivery of a bond or a special allowance to persons with disabilities. Many people with disabilities and their families belong to the quintile of greatest poverty and their needs are greater spending on things such adult diapers or expensive medicines.</p>

Nº	Problem	Solution proposal
4	Deficient access to rehabilitation	<p>1. Before the earthquake and tsunami, there was a lack of rehabilitation offer, now most part of the services are not working (many buildings destroyed). It is recommendable to reestablish rehabilitation network as soon as possible. Universities, Professional Institutes, private sector and international agencies can help to render this vital service.</p>

## II) Inclusive rebuilding.

This stage is the longer one and is about the permanent measurements. To help to get through this stage successfully, the Universidad Austral de Chile fully discloses its own designed methodology called Inclusive Index Calculation Matrix.

### 1) Inclusive Index Calculation Matrix

This methodology is based on the International Classification of Functioning, Disability and Health. It works on environment aspects. It is not designed to evaluate Peoples with disabilities' skills, it is designed to measure how inclusive a place, procedure, methodology or a technology is. It can be used in the whole project cycle.

#### Calculation of inclusion level

The calculation variables are:

- **Autonomy:** the ability to perform an action or activity without the need third parties intervention (strengthens independent living).
- **Dignity:** design procedures, technology usage, spaces designed to be used protecting the respect due to every person, avoiding situations that might be uncomfortable.
- **Security:** the presence of protective factors (physical and / or social) that prevent or decrease the risk of accidents and / or loss of functionality.
- **Reasonable time of usage:** time of usage of a given facility, furniture, technology or a procedure should be optimally the same time required by any user.

## **Scale**

In the design stage levels 0 and 1 can be reached. Given the complexity of the operations that a user could be made for use or participate, sometimes maximum level attainable is 1.

**Level 0** = Optimal level (universal access). The project guarantees free transit, use and participation of people with different types and degrees of disabilities. The person with disability can perform independently, his/ hers dignity, safety, autonomy and proper time of usage is guaranteed.

**Level 1** = good. The project provides free transit, use or participation of people with different types and degrees of disability. The person with disability can perform most of the time independently, but sometimes with third party support. His/ hers dignity, safety, autonomy and proper time of usage is respected, but It is recommended to enhance the aspects that can be improved to rise to level 0.

**Level 2 =** acceptable level. The project gives priority to the welfare (as) users and users in different contexts of performance. In its present implementation flaws easy to solve, so it is recommended to optimize results. The project allows the integration, and partially supports inclusion.

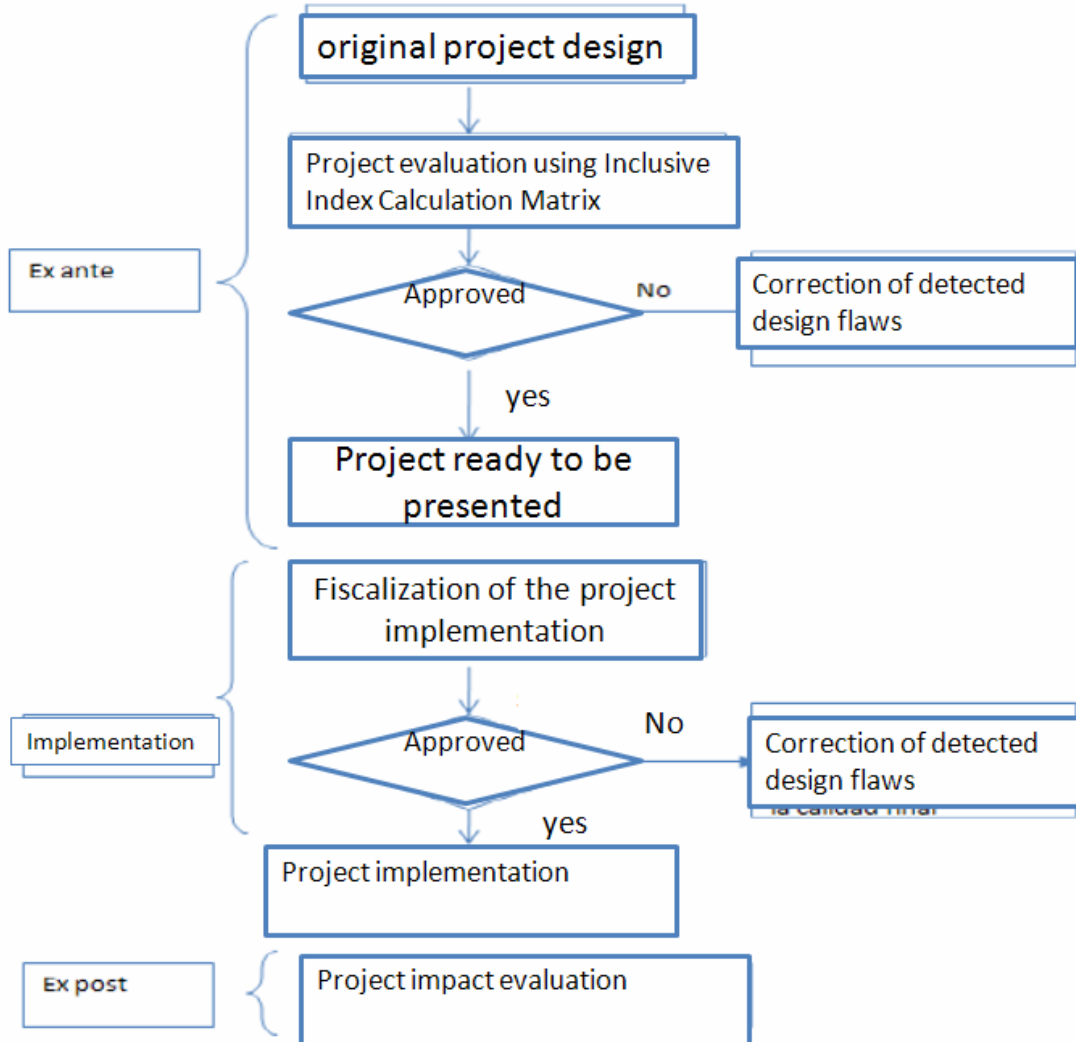
**Level 3 =** basic level. The project seeks to prioritize the welfare for its users in different contexts of performance. In its implementation are presented intractable weaknesses, so that should improve and optimize performance. The project has serious problems to enable the integration and is not conducive to inclusion.

**Level 4 =** Level exclusive. The project does not allow or hinder the participation of people with disabilities. It respects no rights and is deficient in the variables of autonomy, dignity and security.

<b>Inclusive Index Calculation Matrix</b>	
<b>Entity</b>	
<b>Division/ unit</b>	
<b>Project</b>	
<b>Stage</b>	
<b>Territory</b>	
<b>Users</b>	

Inclusion indicators	Dimensions given in this charts are just examples. They can be customized depending on the project to be evaluated nature						
	Dimension	Variables	Scale				
			0	1	2	3	4
<b>Accessibility to physical space:</b> does everyone use, without barriers or obstacles, the same access, facilities and services, with security, dignity, autonomy and with a reasonable time of usage (if the result is = 0 is a project with universal accessibility).	Autonomy						
	Security						
	Dignity						
	Reasonable time of usage						
<b>ICT Access:</b> everyone uses, without barriers or obstacles, the same platforms, media and programs, with security, dignity, autonomy and with a reasonable time of usage (if the result is = 0 is a project with universal accessibility).	Autonomy						
	Security						
	Dignity						
	Reasonable time of usage						
<b>Total score</b>							

Schematic design



## 1) Public use building and places

Nº	Problem	Solution proposal
1	Public use buildings with inadequate accessibility	<p>1) It is recommended to build in full compliance with existing laws on the accessibility of public buildings, it is strongly recommended to follow (it is a Chilean law) Article 4.1.7. the D.S. No. 47 (V. and U.), 1992, these laws are not observed in more than 67% of state public buildings.</p> <p>2) It is required that the reconstruction work will need that local government units in charge of monitoring the construction laws to monitor its effective observance</p> <p>3) It is recommended that Mideplan (Planning Ministry) use its legal powers to deny public funds for buildings that do not have accessibility action plans in accordance with the law in its blueprints.</p>

Nº	Problem	Solution proposal
2	Public use buildings with inadequate infrastructure design make its installations impossible or difficult to use.	<p>1) even if the entrance is accessible if the rest of the building is not, there is no use to enter to the building in first place, so it is strongly recommended to build thinking in the user's needs.</p> <p>2) It is recommended that buildings installations should be designed using the Inclusive Index Calculation Matrix along with accessibility measurements.</p>

Nº	Problem	Solution proposal
3	Public use buildings with inadequate evacuation systems	<p>1) There are evacuation systems and emergency exits designed for people with disabilities. Japan has implemented these systems in some building. It is recommended to ask advice on the matter to the International Cooperation Agency of Japan Jica, the agency has implemented these designs in Tokyo International Center (TIC). There are measures such as evacuation sleeves that can be implemented, it is recommended to include Chilean Fire Department in the design and monitoring of this measure, that have to be carefully monitored after being installed.</p> <p>2) Flats should be privileged in the first floor for people with disabilities to inhabit them.</p> <p>3) People living or working in buildings must be trained in techniques to help to evacuate people with disabilities.</p>

Nº	Problem	Solution proposal
4	People with disabilities are mobility impaired by the design of streets and sidewalks	1) Law and common sense are required to be followed in in this area. Municipal Works Directorates must ensure that law is complied. In our country there are different types of emergencies, so it is urgent that people with disabilities can move freely, which in case of emergency would facilitated to go to safe areas in time. Have regulatory paths with recesses facilitate the displacement of many people, which could help to improve the economy.

Nº	Problem	Solution proposal
5	People with disabilities are mobility impaired by the design of urban furniture	1) Poor design of urban furniture can cause accidents on a normal day and multiply them in an emergency. Urban furniture design and implementation must follow logic and accident prevention design.

### III) Inclusive response to catastrophes.

Nº	Problem	Solution proposal
1	People with disabilities face security problems for deficiencies in safe zones accessibility	1) It is strongly recommended to establish safe zones in buildings, work places and residential ones. Safe zones must be fully accessible and there must be people trained to help people with disabilities to reach safe zones.

Nº	Problem	Solution proposal
2	People with disabilities face security problems for deficiencies in evacuation procedures	1) It is strongly recommended to establish evacuation procedures designed to save people with disabilities. People with disabilities should have the opportunity to subscribe to an “emergency location map” for Local authorities and emergency agencies to know where a person with disability lives. It has to be voluntary and

		<p>personal data must be protected of improper use.</p> <p>2) A community based evacuation procedure should be established. Neighbors are closer to a person with disability than authorities so their help would come first and save time. For this to be implemented there must be proper training.</p>
<b>Nº</b>	<b>Problem</b>	<b>Solution proposal</b>
1	People with disabilities face security problems for deficiencies in rescue system	<p>1) People with disabilities should have the opportunity to subscribe to an “emergency location map” for Local authorities and emergency agencies to know where a person with disability lives, this date could help to rescue people with disabilities from devastated places. To be part of this “emergency location map” has to be voluntary and personal data must be protected of improper use.</p>

#### **IV) Final recommendations.**

Outcomes of implementing this plan will depend on political will and networking, its implementation must be strongly monitored. People with disabilities organization must be part of this effort and have to be carefully listened.

It is strongly recommended to the government to implement management control and incentives for this plan to be implemented. The National Disability Service must be reinforced and given especial budget to face this contingency and to ensure people with disabilities get real help. Chile can be helped by several foreign and international agencies, an international work force for People with disabilities catastrophes relief should be created at once.

