

A photograph of a blue tarp on the ground, surrounded by dry leaves and green grass. The tarp is partially covered with a layer of dry, brown leaves and twigs. The text is overlaid on the tarp.

# **EFFECTS OF THE COVID PANDEMIC**

**ON NATURE-BASED PROGRAMS  
IN THE EDUCATIONAL, THERAPEUTIC,  
TRAINING AND LEISURE AREAS**

# INTRODUCTION FOR NON-ITALIAN READERS



This report aims to give a **picture of the actual situation** of Italian nature-based programs in the educational, therapeutic, training and leisure areas, pointing out how the Covid pandemic influenced this field. This introduction for non-Italian readers is due to the particular situation of this field in Italy, which requires some explanations.

First of all, we need to **define the field** of nature-based programs and to explain the meaning of certain terms. We are not taking into account outdoor education in schools, but only nature-based extracurricular activities: the words “education” or “educator” or “educational” in this report are not referred to school contexts, but to other educational and social areas. The “nature-based sector” this report refers to includes different types of programs in the following fields: environmental education, therapy/rehabilitation in nature, socio-educational outdoor/adventure programs, outdoor sport/leisure/tourism, outdoor training (Gigli, Melotti & Borelli, 2020).

Secondly, we would like to briefly present the **peculiar condition of nature-based sector in Italy**. The situation is not homogeneous: under the experiential point of view, Italy has an interesting and rich history, but these experiences were not taken into account neither by the general audience nor by researchers or experts in the field for a long time. Italian nature-based experiences in the educational and therapeutic fields started in the early 1950s and spread especially in the '70s (Melotti, Gigli & Borelli, 2020), but it is just in the last decade that universities and educational contexts are giving some attention to the topic. There is not a national legislation regulating the nature-based sector and professionals yet, but just some local norms that differ from region to region; furthermore, the field lacks institutional, social and financial recognition and support. Despite the obstacles due to this bureaucratic confusion, in the latest years there has been a growing interest for nature-based activities, both from beneficiaries asking for experiences in nature and from researchers increasing their studies in the field. Before the Covid pandemic, the sector was actually expanding.

Lastly, there is a need for contextualization of the nature-based programs in the **Italian way of coping with the Covid pandemic**: these programs, as well as the majority of working fields, were subjected to numerous norms and restrictions. From the beginning of March to the beginning of June, the “Lockdown phase”, all activities were stopped (except for hospitals and grocery shops or other activities considered absolutely essential). From the beginning of June, the so-called “Phase 2” has started: in this phase, many activities could start again, but with consistent restrictions due to many sanitary prevention norms. Now (July) we still do not know what is going to happen in the future to many fields (e.g. Arts, Education...) who have not started again, or have started partly and with extremely strict norms.

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*Graphic design by Chiara Borelli and Marta Noharet.*



# 0. THE RESEARCH



This research was created by an equipe\* belonging to the **Research Center for Outdoor and Experiential Education and Training** (Centro di Ricerca per l'Educazione e la Formazione Esperienziale Outdoor - **CEFEO** <https://centri.unibo.it/cefeo/it/cefeo-international;edu.cefeo@unibo.it>) of the University of Bologna.

In the period May 28th to June 19th 2020 an online questionnaire was distributed with the purpose of understanding the **socio-economic impact of Covid19 on nature-based programs**, and the related needs and new opportunities.

The questionnaire was structured in four areas:

1. THE CHARACTERISTICS OF THE INSTITUTIONS/AGENCIES,
2. THE EFFECTS OF THE COVID19 PANDEMIC DURING THE LOCKDOWN PERIOD,
3. THE SITUATION DURING THE SECOND PHASE (FIRST REOPENING),
4. POSSIBLE FUTURE PERSPECTIVES AND CONNECTED NEEDS.

\*Professor Alessandra Gigli, Professor Giannino Melotti, Doctor Chiara Borelli.

## Characteristics of the sample

About 500 people were invited to participate to the research, although the population working in the nature-based area is much larger. **100 people answered to the questionnaire**: some of them work outdoor individually, some other are part of institutions/agencies.

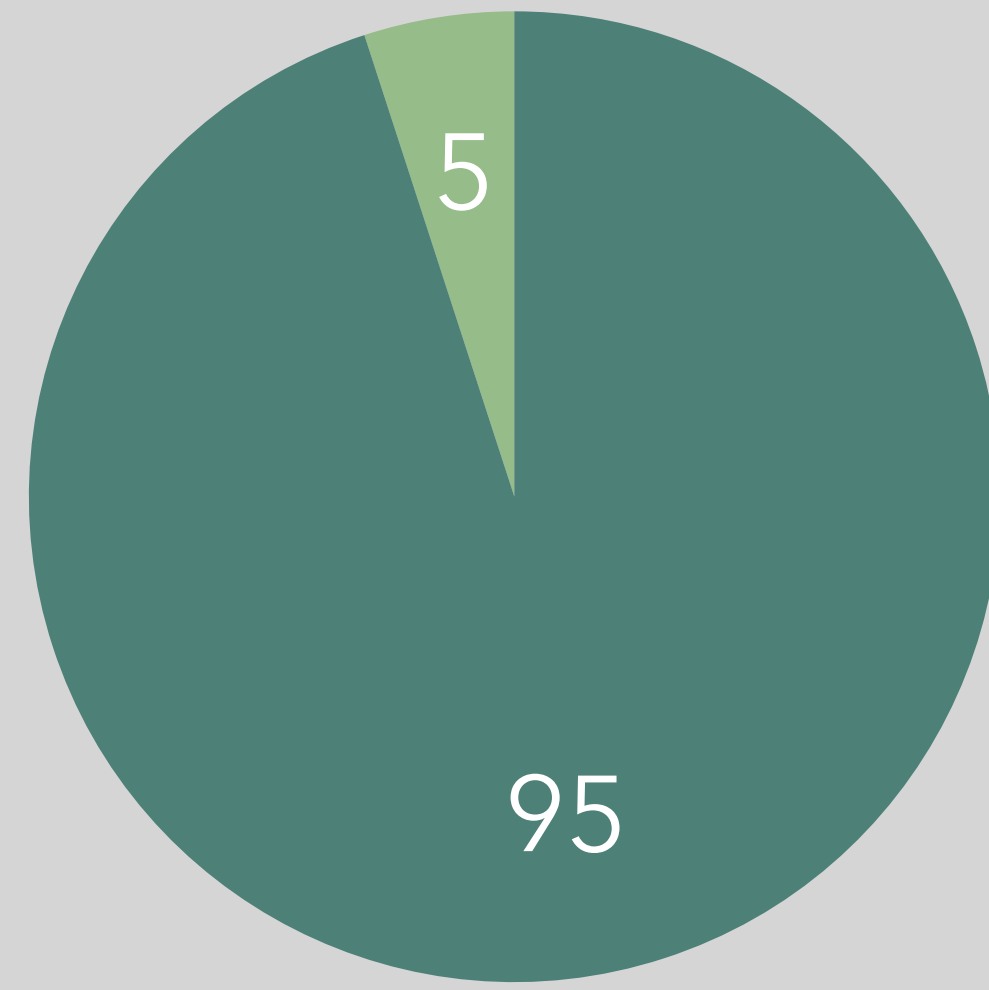
**They work "in nature"** as guides, educators, social workers, instructors, psychologists... **covering different roles and with different purposes**: educational programs for schools, therapeutic programs, training, tourism, environmental education, leisure proposals. Most institutions/agencies are small or medium size and their workers are "multitasking", meaning that they simultaneously cover multiple roles (most of them are both workers and coordinators and managers and project planners...).

# 1.WHO ARE WE TALKING ABOUT?

THE CHARACTERISTICS OF THE INSTITUTIONS/AGENCIES



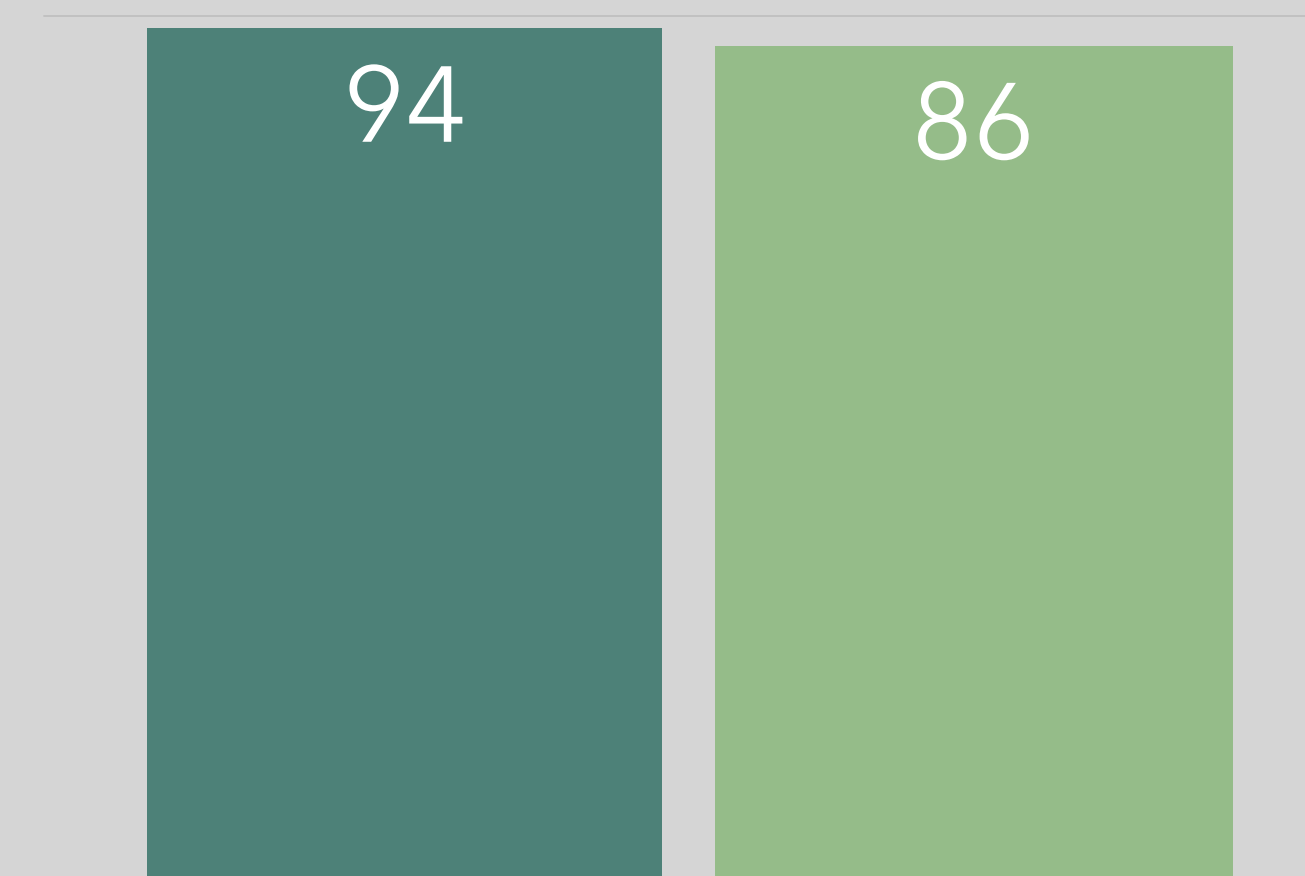
## Type of institution



● Private ● Public

(cooperatives, associations of social promotion, non-profit organization, individual agencies, societies...)

## Customers\*

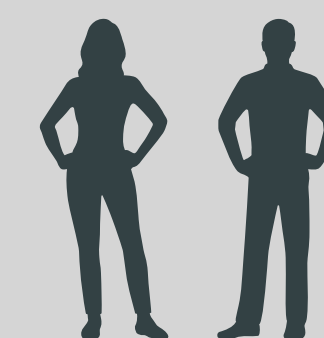
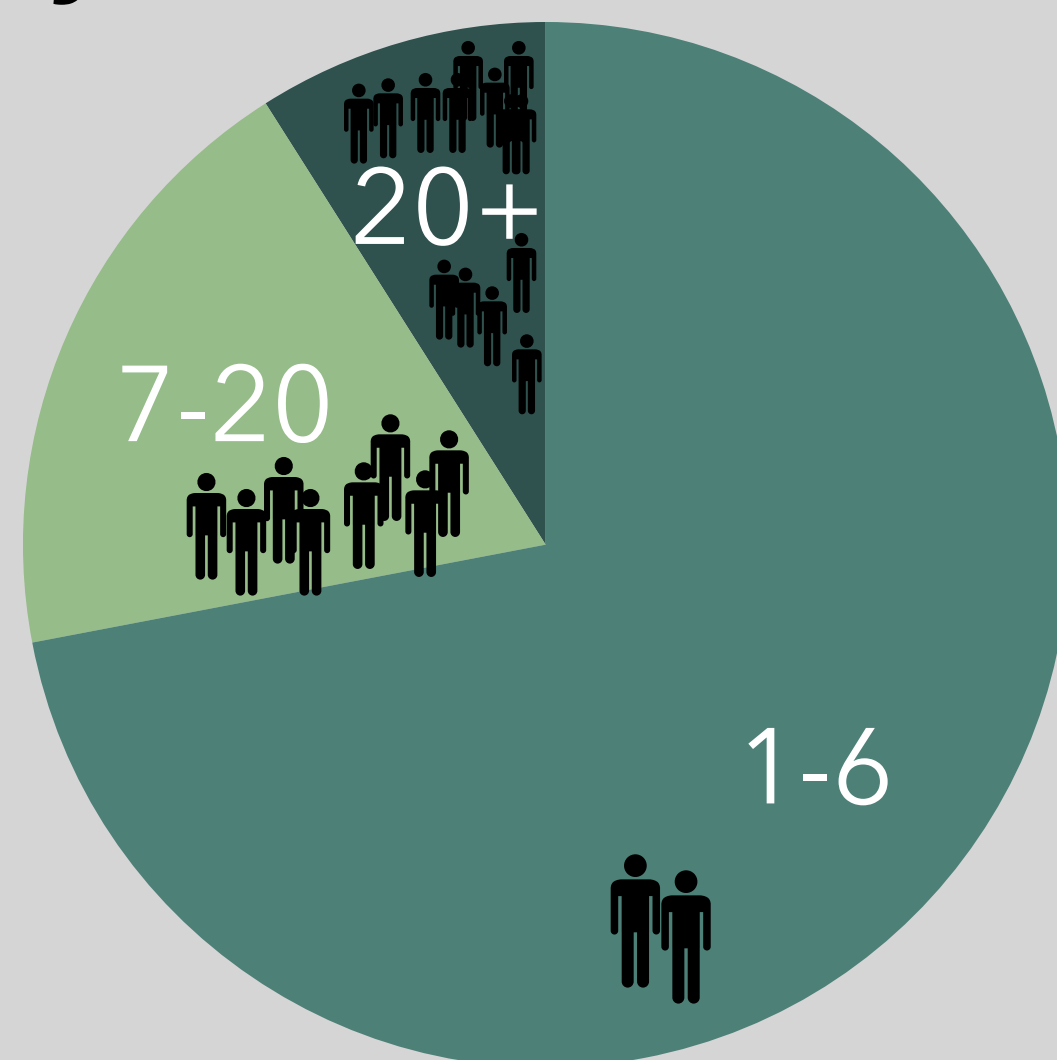


Private

Public

(schools, local medical and social services...)

## How many workers in your institution?



**TOTAL:**  
more than

**635\*\***  
**workers**

(guides, educators, social workers, trainers, outdoor sports instructors...)

\*it was allowed to choose more than one answer.

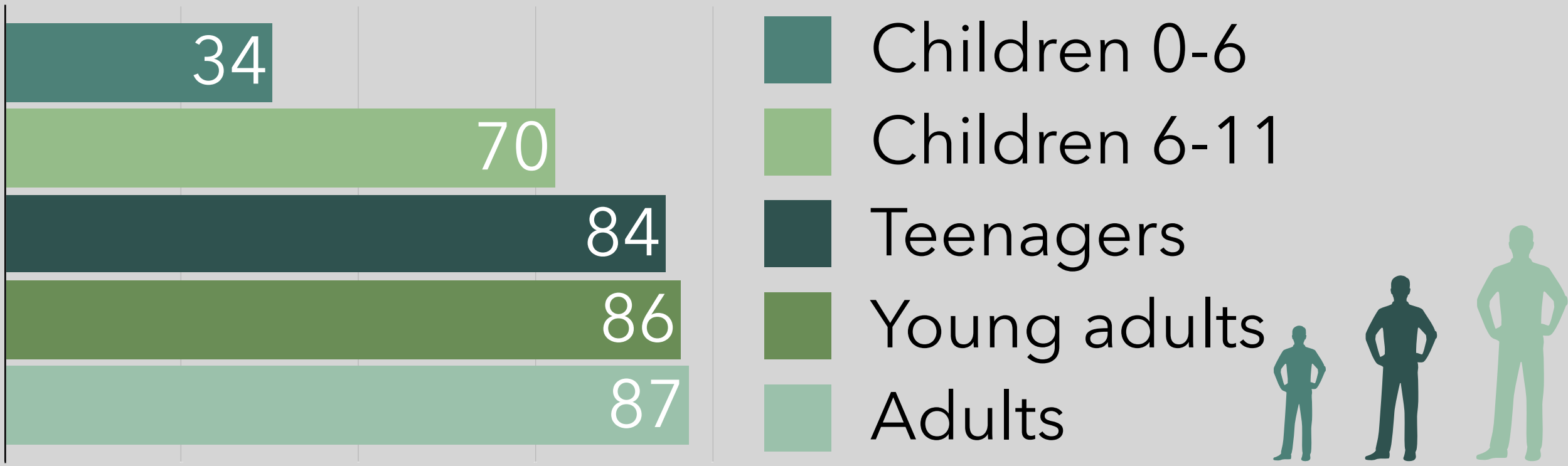
\*\*since the institutions answering the questionnaire were around 1/5 of those who were found and asked to participate, we estimate that the number of workers in the nature-based area in the Italian peninsula is much higher than **3175**. It was not possible to obtain official data regarding the number of nature-based institutions in Italy: you can find a mapping of Italian nature-based sector in the research by Melotti, Gigli & Borelli, 2020 (see bibliography).

# 1.WHO ARE WE TALKING ABOUT?

THE CHARACTERISTICS OF THE INSTITUTIONS/AGENCIES

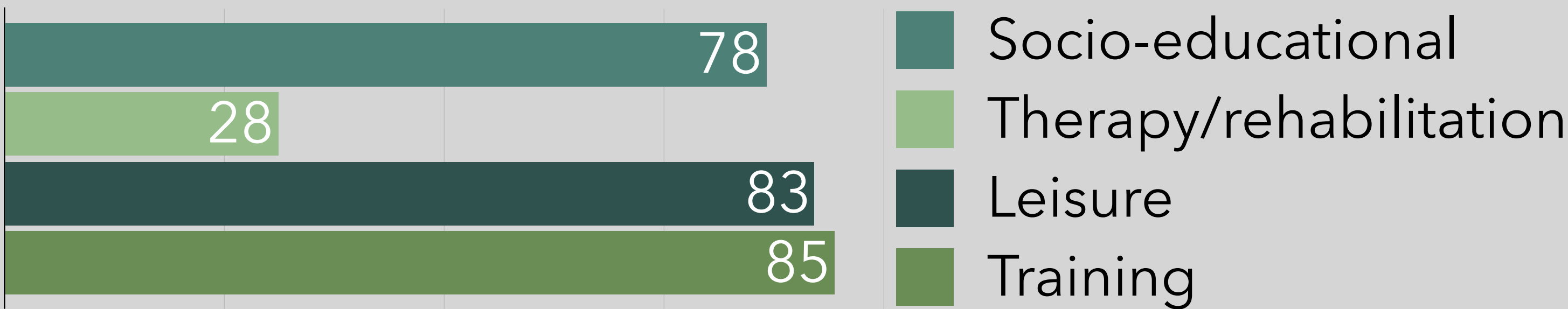


## Beneficiaries\*

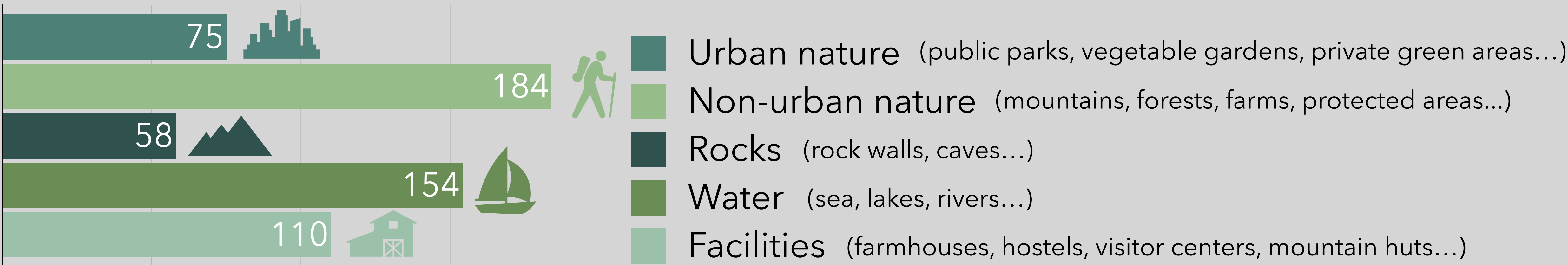


Institutions/agencies working in the nature-based sector are spread throughout the entire Italian peninsula, but the answers to the questionnaire came especially from northern and central regions (Emilia Romagna, Toscana, Trentino Alto Adige, Lombardia e Veneto).

## Areas\*



## Natural environments where the programs take place\*



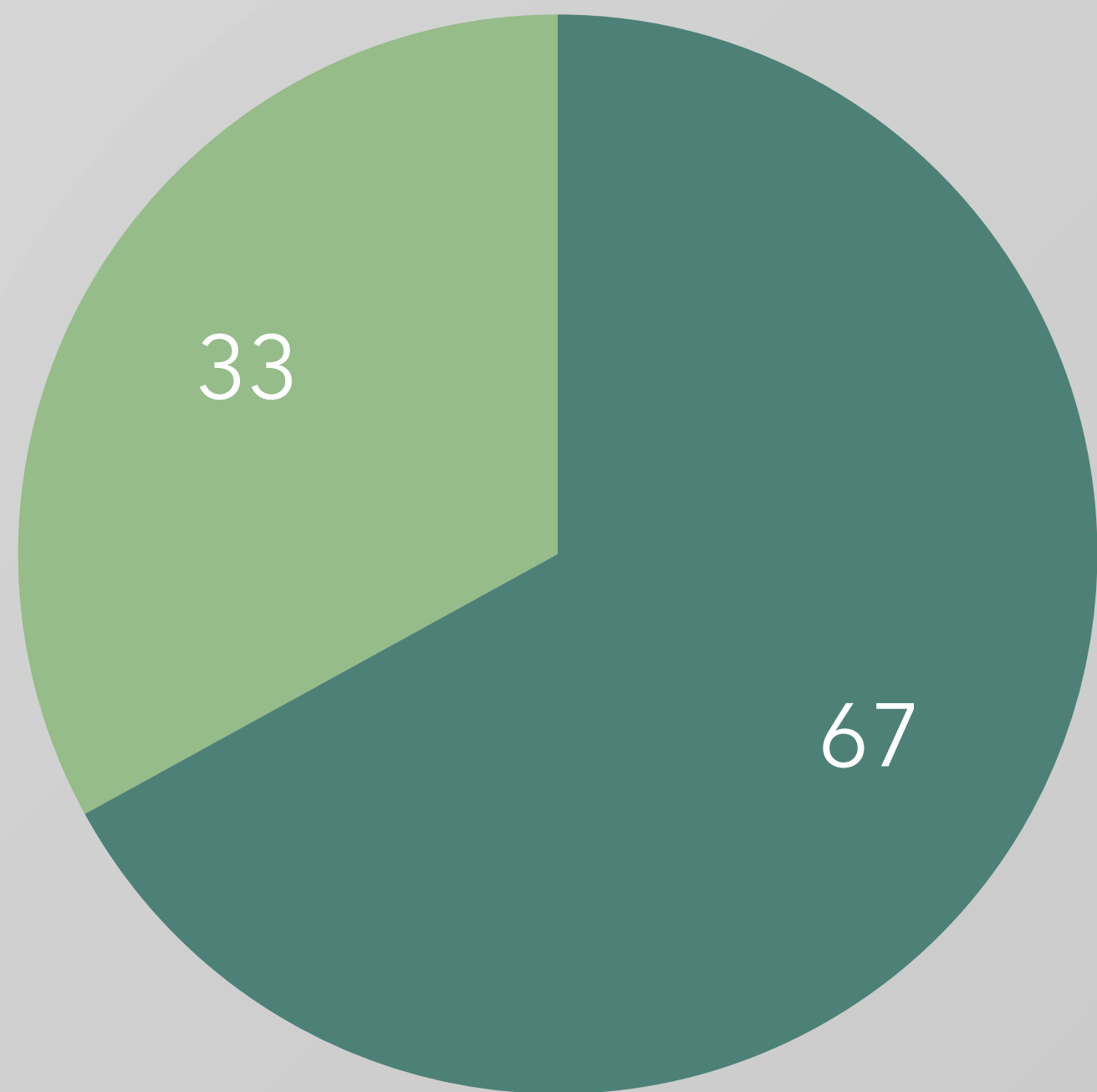
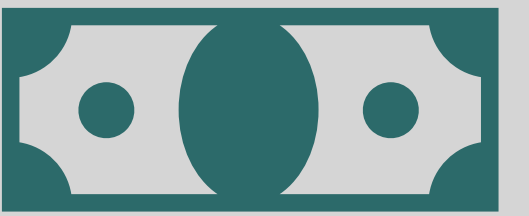
\*it was allowed to choose more than one answer.



# 2. LOCKDOWN EFFECTS



During the lockdown period



- Closed/stopped all the activities
- Stopped outdoor, but continued other activities

THE NATURE-BASED SECTOR HAS LOST  
**1.825.000\* EUROS**  
IN THE PERIOD MARCH-MAY 2020

WHICH CORRESPONDS TO **100%** OF THE INCOME  
IF COMPARED TO THE SAME PERIOD IN 2019



**76%**  
OF THE INSTITUTIONS LOST  
**ALL**  
THEIR WORKING DAYS

WE ESTIMATE THAT MORE THAN  
**36.000\*\* PEOPLE**  
**COULD NOT BENEFIT**

FROM NATURE-BASED ACTIVITIES IN THE  
EDUCATIONAL, THERAPEUTIC AND TRAINING AREAS  
IN THE PERIOD MARCH-MAY 2020

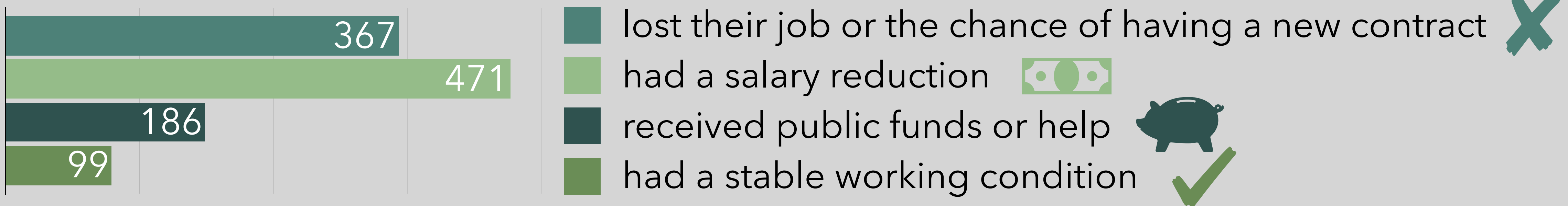
\*since the institutions answering the questionnaire were around 1/5 of those who were found and asked to participate, we estimate that the lost income amounts to more than **9.125.000 euros**.

\*\*since the institutions answering the questionnaire were around 1/5 of those who were found and asked to participate, we estimate that more than **180.000 people could not benefit of nature-based activities**.

# 2. LOCKDOWN EFFECTS

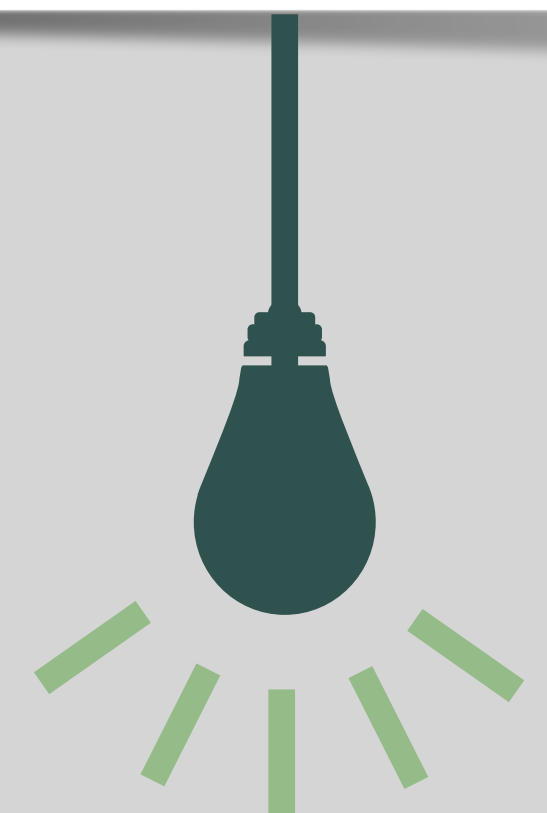


## Situation of workers in the nature-based area\*

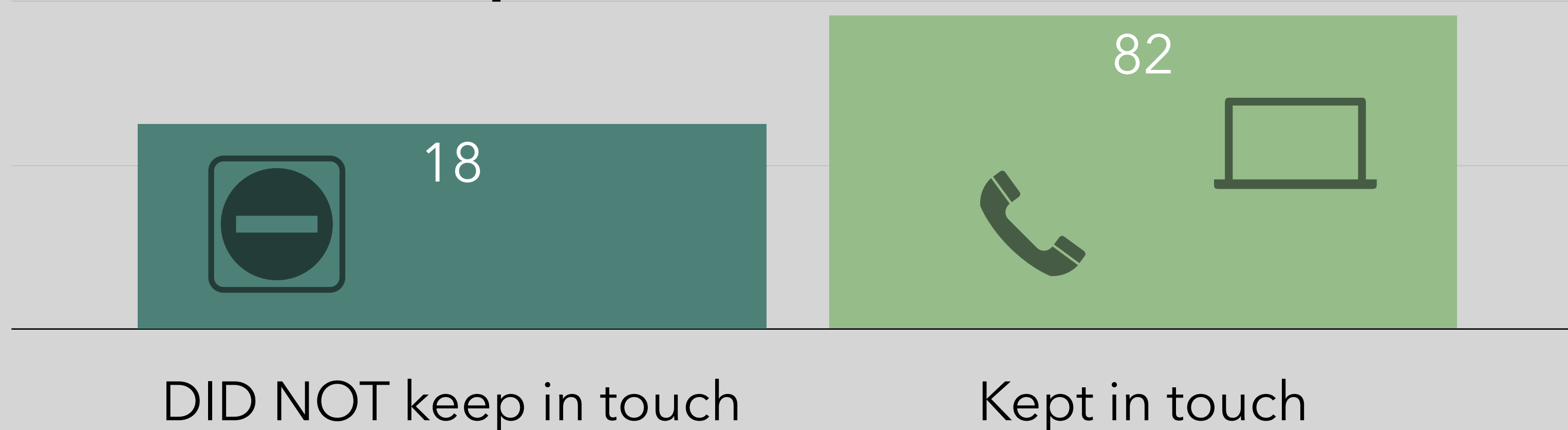


How do you feel?

WORKERS' ANSWERS SHOW THAT, DESPITE BEING **WORRIED** ABOUT THE CHANGES THEY NEED TO MAKE, THEY **ACTIVELY REORGANIZED** THEIR JOB AND STARTED LOOKING FOR **CREATIVE SOLUTIONS.**



## Contacts and exchanges with the beneficiaries during the lockdown period



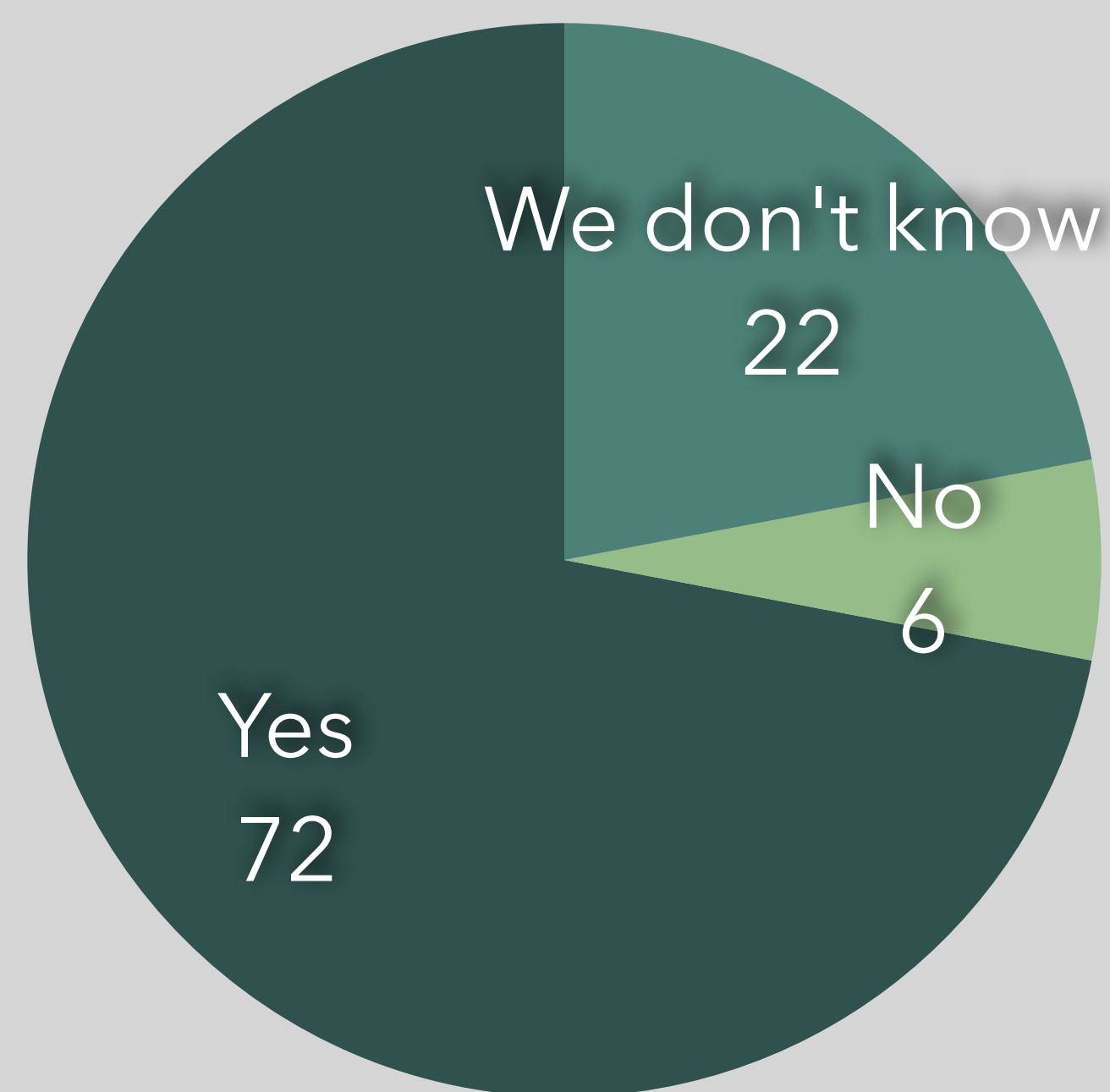
\*it was allowed to choose more than one answer.



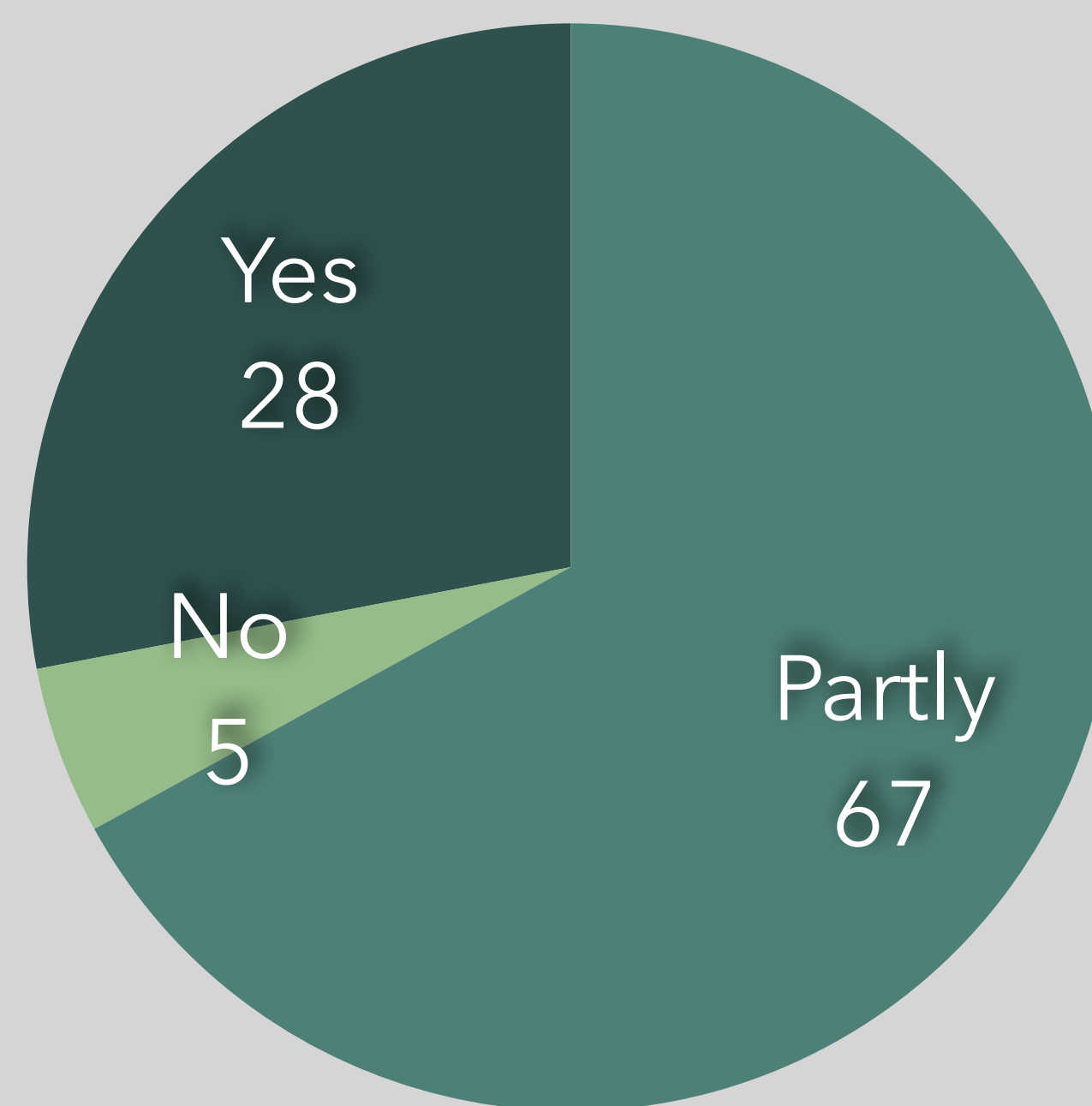
# 3. FIRST REOPENING



Do you have the chance to reopen?

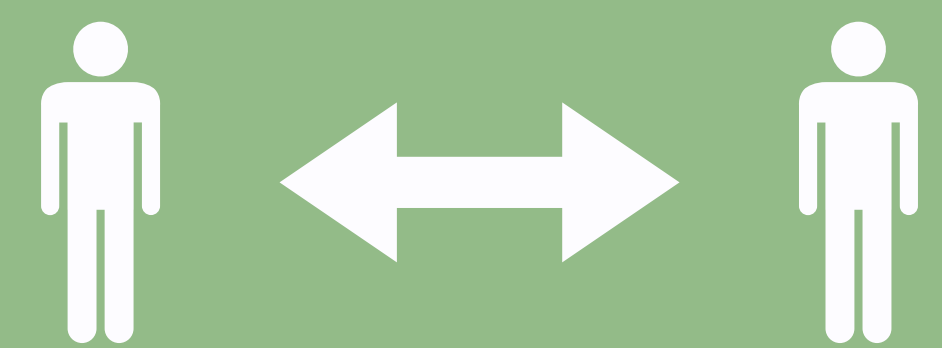


Do you need to make changes?



Which changes?

Less participants, because of “social distancing”<sup>\*</sup> norms



WORKERS IN THE NATURE-BASED AREA ARE AFRAID THAT THE **RELATIONSHIP** WITH THE BENEFICIARIES MIGHT BE NEGATIVELY INFLUENCED:



- BOTH BY “SOCIAL DISTANCING”<sup>\*</sup> (3/4 OF THE SAMPLE)
- AND BY PROTECTION MASKS (2/3 OF THE SAMPLE)<sup>\*\*</sup>

There is a risk of affecting:



Huge changes to the activities, because of restrictions to transportations and accommodation facilities



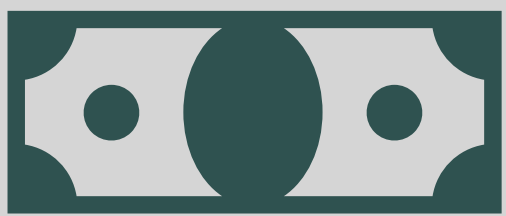
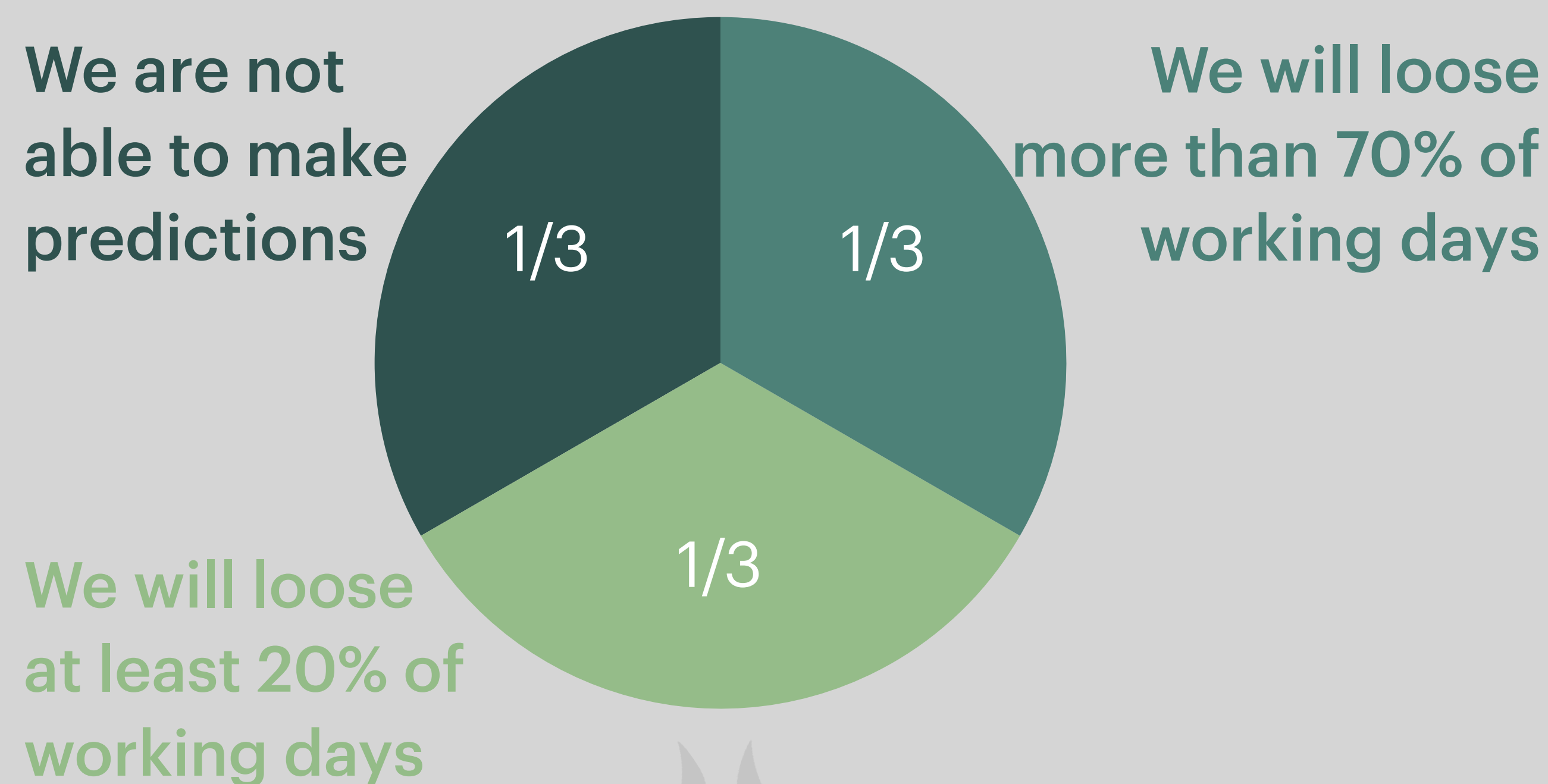
<sup>\*</sup>despite this term is officially used, we ought to replace it “physical distancing”, in order not to transmit the idea that it is necessary to avoid social relationships.

<sup>\*\*</sup>less than half of the sample is worried about the sanitation of environments and tools.

# 3. FIRST REOPENING



## Loss of working days from June to August 2020: predictions



ECONOMIC LOSS FROM JUNE TO AUGUST 2020\* (PREDICTION):

- MORE THAN **1/3 CAN'T MAKE PREDICTIONS**

- THE REST PREDICT TO LOSE **ALMOST 90% OF THEIR INCOME**

NUMBER OF PEOPLE THAT WILL NOT BENEFIT FROM NATURE-BASED ACTIVITIES FROM JUNE TO AUGUST 2020\* (PREDICTION):

- MORE THAN **1/3 CAN'T MAKE PREDICTIONS**

- THE REST PREDICT A HUGE LOSS:  
AROUND **14.000\*\***  
**PEOPLE** WILL NOT BENEFIT

\*the questionnaire closed on June 18th 2020.

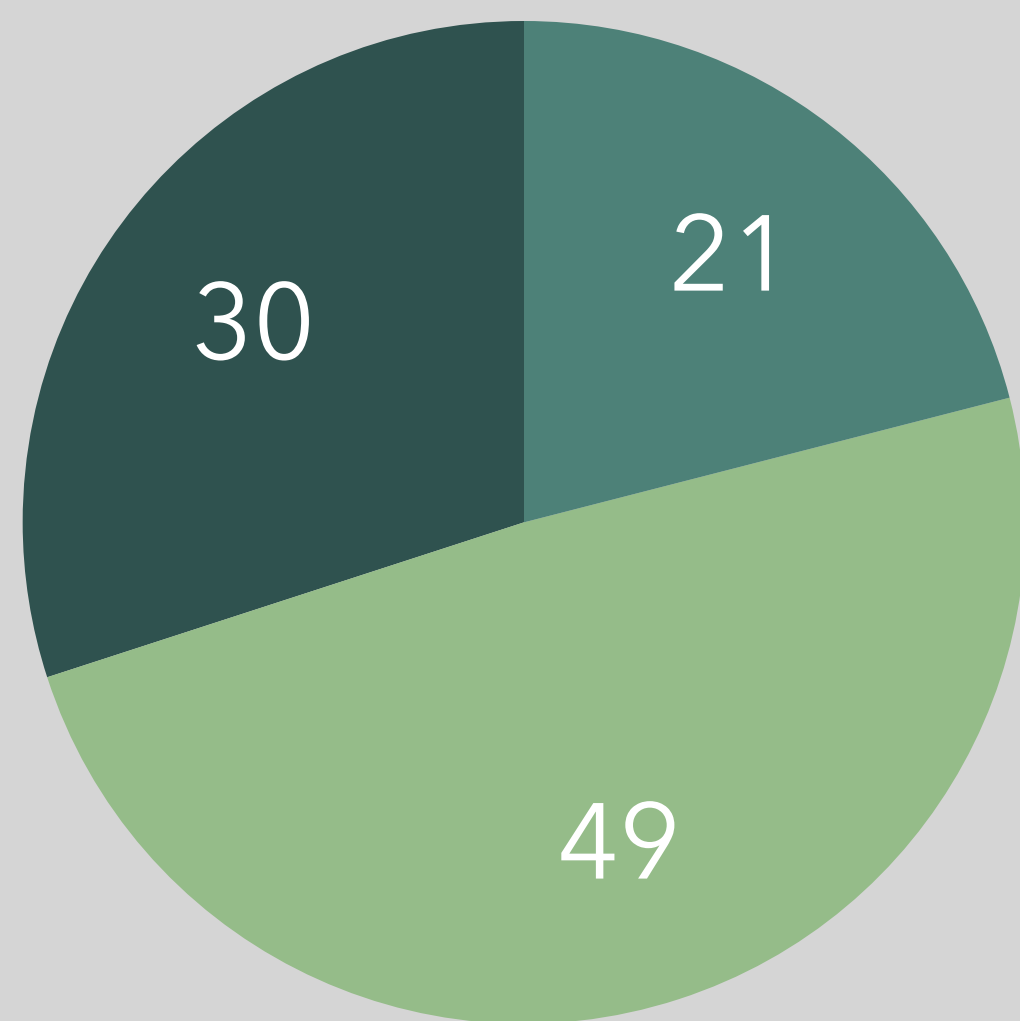
\*\*since the institutions answering the questionnaire were around 1/5 of those who were found and asked to participate, we estimate that more than **42.000 people will not benefit from nature-based activities.**



# 4. FUTURE PERSPECTIVES



## Any long term effects?



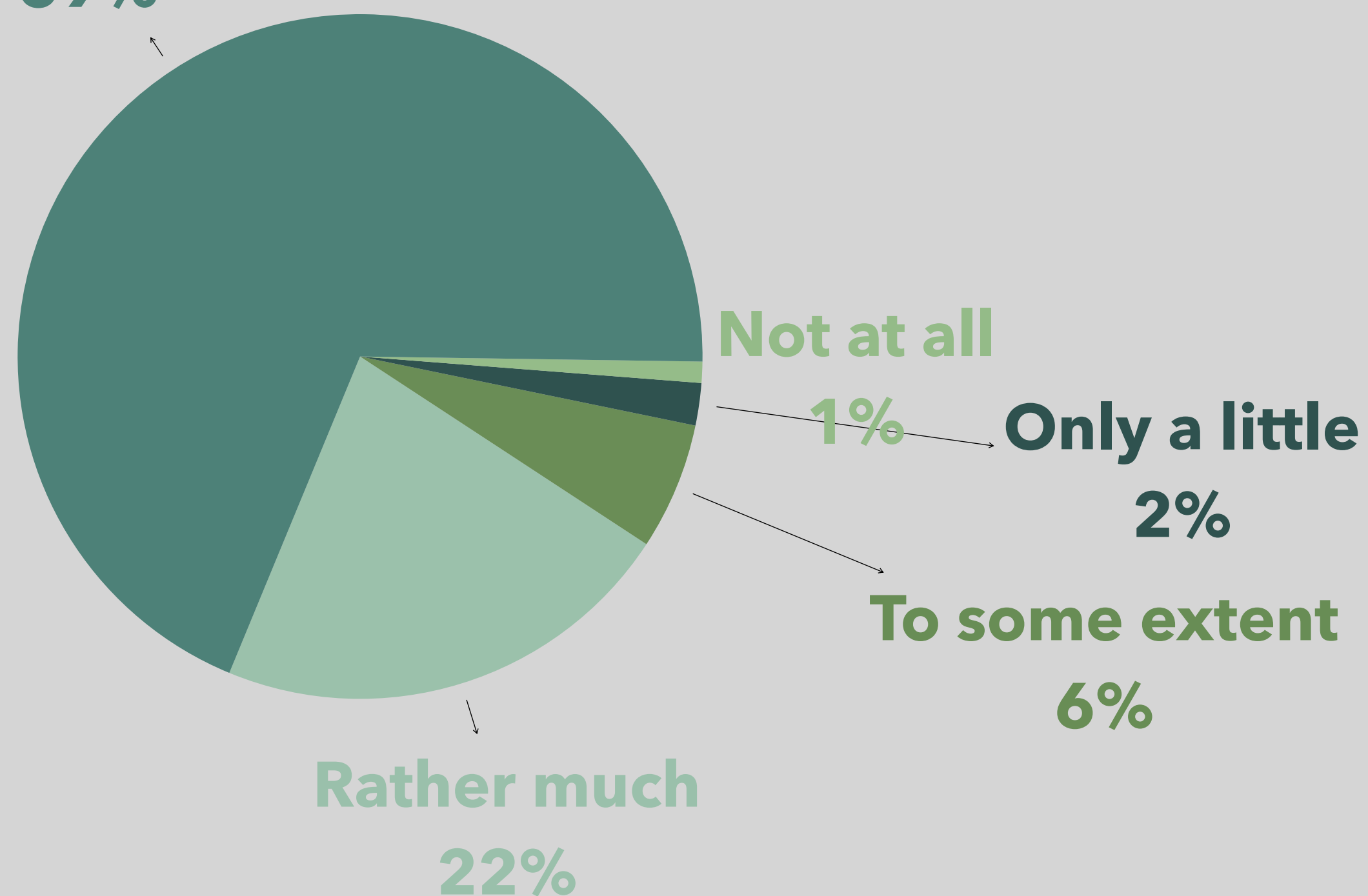
- We will reorganize and we will reopen at full capacity
- We don't know yet: it depends on the chances we will meet
- We will have to modify or reduce our proposals



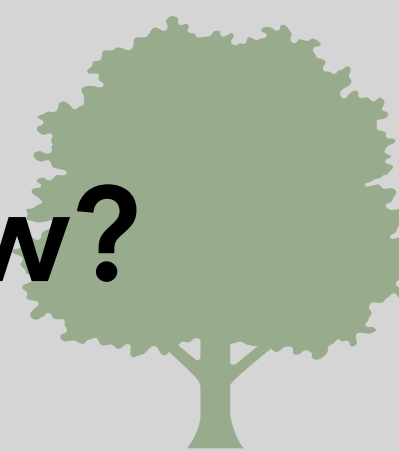
NO-ONE IS AFRAID TO CLOSE COMPLETELY

## Importance of nature-based proposals in the next phase of the pandemic

Very much  
69%



How?



"Contact with nature is relaxing and restorative both under the physical and psychological point of view"

"Attending natural environments is fundamental to go back to normal everyday life and reduce the risk of social withdrawal"

"The lockdown period encouraged many people to reorientate their lifestyle towards biophilia and sustainability"

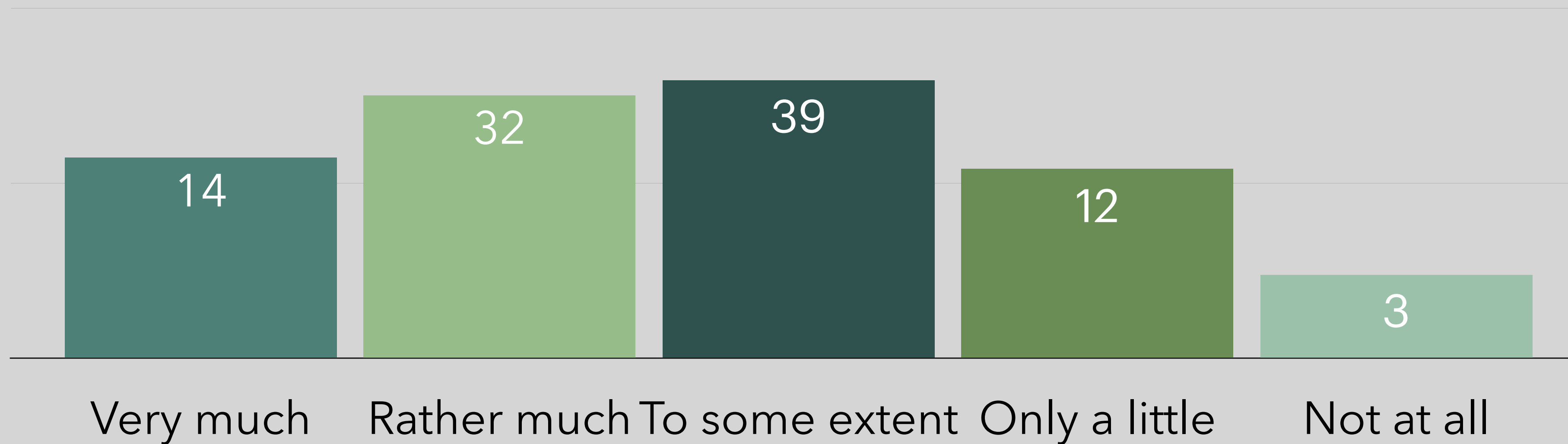
"In nature it is easier to keep distance, so it is the most suitable environment where to start social contacts again"

"Natural environments stimulate growth and learning holistically"

# 4. FUTURE PERSPECTIVES



**Will there be new opportunities in the nature-based working sector?**



**Some examples of new nature-based opportunities after the pandemic:**

"Schools (and other educational institutions) could finally understand the importance of nature-based education, both for didactics and relationship purposes"

"Local tourism could flourish as well as the re-discovery of geographical areas previously ignored"



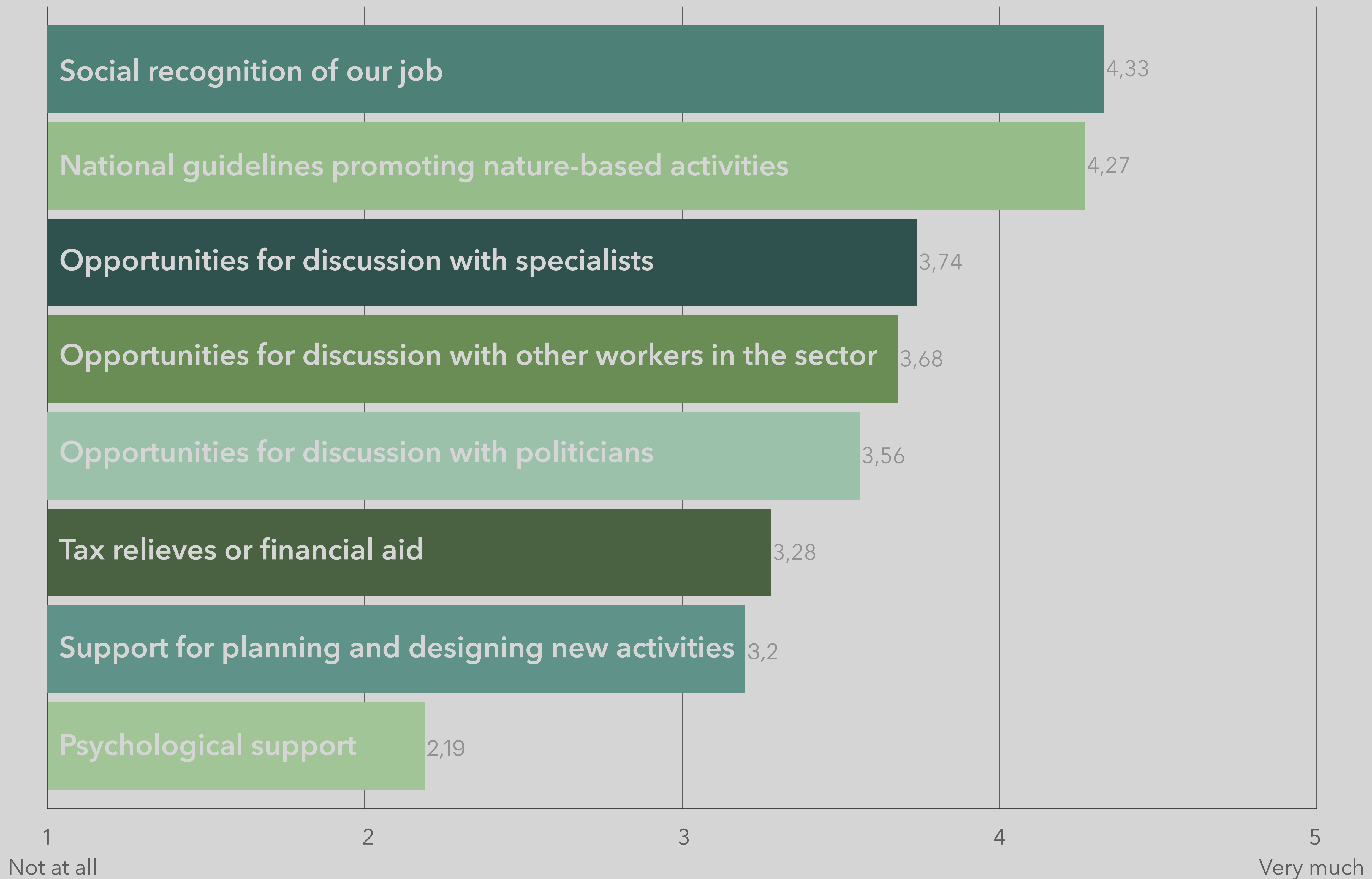
"Open spaces reduce the risk of infection, therefore people will prefer them"

"During the pandemic people felt an increasing need for spending time outdoor, as they became aware of how healthy it is. There is a higher and growing desire for recontacting Nature"

# 4. FUTURE PERSPECTIVES



## Long term needs expressed by workers in the nature-based area





# 5. CONCLUSIONS



Italian “**nature-based sector**” is made of different institutions/agencies that work in the following areas: environmental education; nature therapy/rehabilitation; socio-educational programs; outdoor sport, leisure and tourism; outdoor and experiential training (Gigli, Melotti & Borelli, 2020).

People working in this sector (guides, educators, trainers, psychologists, social workers, education specialists...) **operate “in nature” with different roles and multiple purposes**: educational programs for schools, therapeutic programs, training, touristic accommodation, environmental education. They work in small and medium size institutions/agencies and they simultaneously cover multiple roles: workers, coordinators, managers, project planners...

In Italy **there are no official data on the size of the “nature-based sector”**, but we know that some of these institutions were founded decades ago, while others have been recently created. **Before Covid19, this sector appeared to be growing** throughout Italy, because of a new interest towards the natural environment, its benefits and its need for protection: there was an increasing request for nature-based activities both from private citizens, and from some public institutions (schools, medical services, social services...).

This is not surprising, since **the scientific literature is full of researches stating the efficacy of nature-based activities** in the socio-educational, training and therapeutic areas. It is well known that the natural environment is an important stimulating learning setting (LeDoux, 1998; Damasio, 2000); it is also proved that it has beneficial effects on the cognitive, sensory-motor, psychological and relational areas (Barton & Pretty 2010; Bowen & Neill, 2013; Corazon, Schilab & Stigsdotter, 2011; Gill, 2014; Hattie et al., 1997; Muñoz, 2009; Neill, 2008; Neill & Richards, 1998; Rickinson et al., 2004; Schilhab & Gerlach, 2008). The psychological and pedagogical scientific literature counts various publications stating the importance of the environment for development and considering experiential education in nature as rich of stimuli and potentials (Agostini & Minelli, 2018; Bertolini, 1957; Borelli, 2020; Bortolotti, 2019; Cecilian, 2014; Christolini, 2016; Dewey, 1925; Farné, 2018; Freire, 1971; Galiazzo 2018; Gardner, 1999; Gigli, 2018; Guerra, 2015; Kolb, 1984; Massa, 1989; Melotti 2018; Montessori, 1949; Morin, 2001; Rotondi 2004; Schenetti, 2015).

# 5. CONCLUSIONS



With the Covid19 pandemic and the related restrictions, **the need for contact with nature has increased. The natural environment might meet many needs**, both during the emergency and in a long-term perspective:

- the need for distancing and open spaces, in order to reduce the risk of infection;
- the need for vitamin-D and for movement, in order to strengthen physical health;
- the need for relaxation and for mental stress reduction
- the need for ecological consciousness, in order to reduce environmental damages (e.g. air pollution) and reduce the risk of future pandemics or other global problems;
- the need for solving the dichotomy between Humans and Nature, but also between mind and body.

Nonetheless, **the nature-based sector suffered from a sudden stop, both under the economical and the organization/planning points of view**: the data we collected through the present research – although partial – show the huge economic loss that was caused both by the lockdown period and by the uncertainties and restrictions during the first reopening phase.

During the lockdown period, **76% of the institutions belonging to the sample lost 100% of their working days**, and just a small amount of them could benefit from financial aid, probably due to the fact that this working sector is often uncertain and season dependent. **The majority of workers in the nature-based area lost their job or the chance of renewing their contract, and the rest suffered from salary reductions.**

**Without specific aids** and without certainties regarding how to apply the sanitary norms, **the first reopening phase appeared to be quite critical**. Our sample's answers (collected within the first half of June) show strong uncertainty for the future: more than 1/3 are not able to make predictions on their possibility to work in the next months; on the other side, those who think they can go back to work are afraid to lose more than 70% of their working days.

On one side, the major obstacles are related to the physical distancing norms, and to the restrictions concerning the transportation and accommodation facilities; on the other side, the main difficulties regard the fear that these restrictions might affect the core characteristics of nature-based activities: interpersonal relationship, trust, body perception, collaboration, sharing, group dynamics...

# 5. CONCLUSIONS



It is a **paradox**: on one side, nature-based potential is becoming more evident and acknowledged; on the other side, the difficulties of the nature-based sector are considerably increasing, putting this important social capital at risk.

In this emergency situation, the workers who answered our questionnaire state **two important needs**: on one side, they ask for social **recognition** of their job; on the other side, they require national effective **guidelines** promoting nature-based activities in the educational, therapeutic and leisure areas.

A suggestion aiming to support this sector could be the inclusion of outdoor activities in school programs, with purposes related to learning, connection with nature, interpersonal relationships, social skills... skills that have been dormant during the whole forced lockdown and distancing periods. Another example could be to promote local tourism through financial aid, with the purpose of rediscovering – in a sustainable way – unknown and precious natural locations.

**We need to give legitimacy to a sector that, despite its important history in Italy, is still little recognized and promoted here.**

It is a **lively sector, rich of skilled and passionate professionals**, who are demonstrating their will to constantly reinvent their job, as this research shows: despite being worried about the changes they need to make to their way of working due to the sanitary norms, and despite the alarming forecasts for the next working season, **almost everyone is trying to reorganize their job and to find new creative solutions in order to face the challenges imposed by the emergency norms.**

We hope that this complex and sensitive period will renovate a stronger interest towards the nature-based sector, given the important role it might have in offering opportunities in this critical moment: **the responsible institutions ought to recognize its efficacy, promote it socially and sustain it economically.**



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