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Sustainability Measurement
and Modelling**



**DIAGNOSIS ON EDUCATION FOR SUSTAINABLE
DEVELOPMENT IN BASIC-LEVEL SCHOOLS
IN HERMOSILLO, MEXICO**

by

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INTRODUCTION

“Environmental Education” became popularized in 1970 by the International Union for Conservation of Nature.

In recent years, the concept has evolved into the term “Education for Sustainable Development” [**ESD**] particularly since Earth Summit, in 1992.

INTRODUCTION

In 2002, the UN declared the **Decade of Education for Sustainable Development (2005-2014, DESD)**.

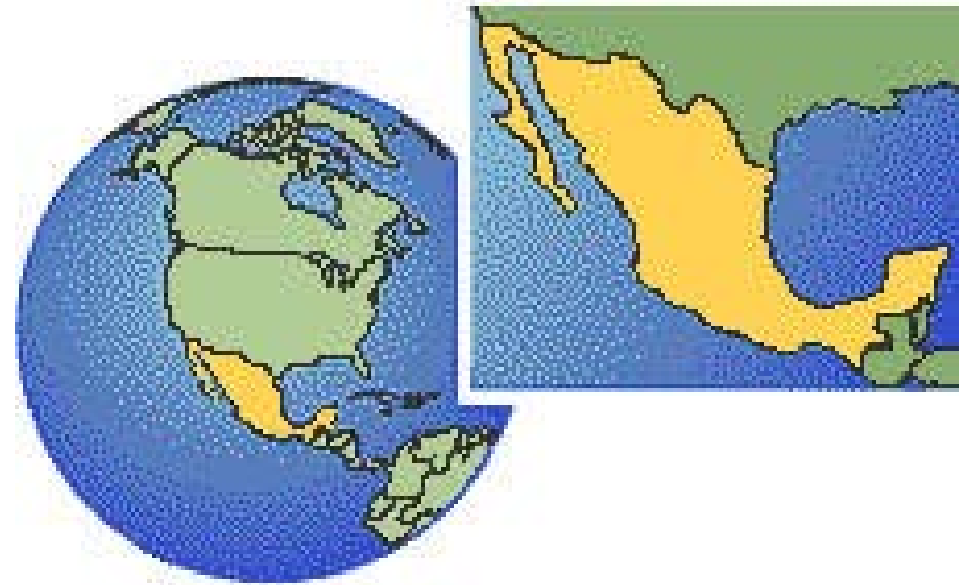


This initiative has the goal “to integrate the principles, values, and practices of sustainable development into all aspects of education and learning.”



INTRODUCTION

In Mexico, environmental education arises mainly from the decade of the 1930s,



mainly through efforts by conservationist Dr. Enrique Beltran whose hope was that “once future teachers understand the importance of conservation, they could educate the public about the future value of the natural world.”

METHODOLOGY

Members of the UNISON's Sustainable Development Group carried out a study, in **Hermosillo**, Mexico, about the incorporation of **ESD** in schools at basic level.





METHODOLOGY

A survey was designed to know the status of the environmental and/or sustainability education in elementary schools within the city.

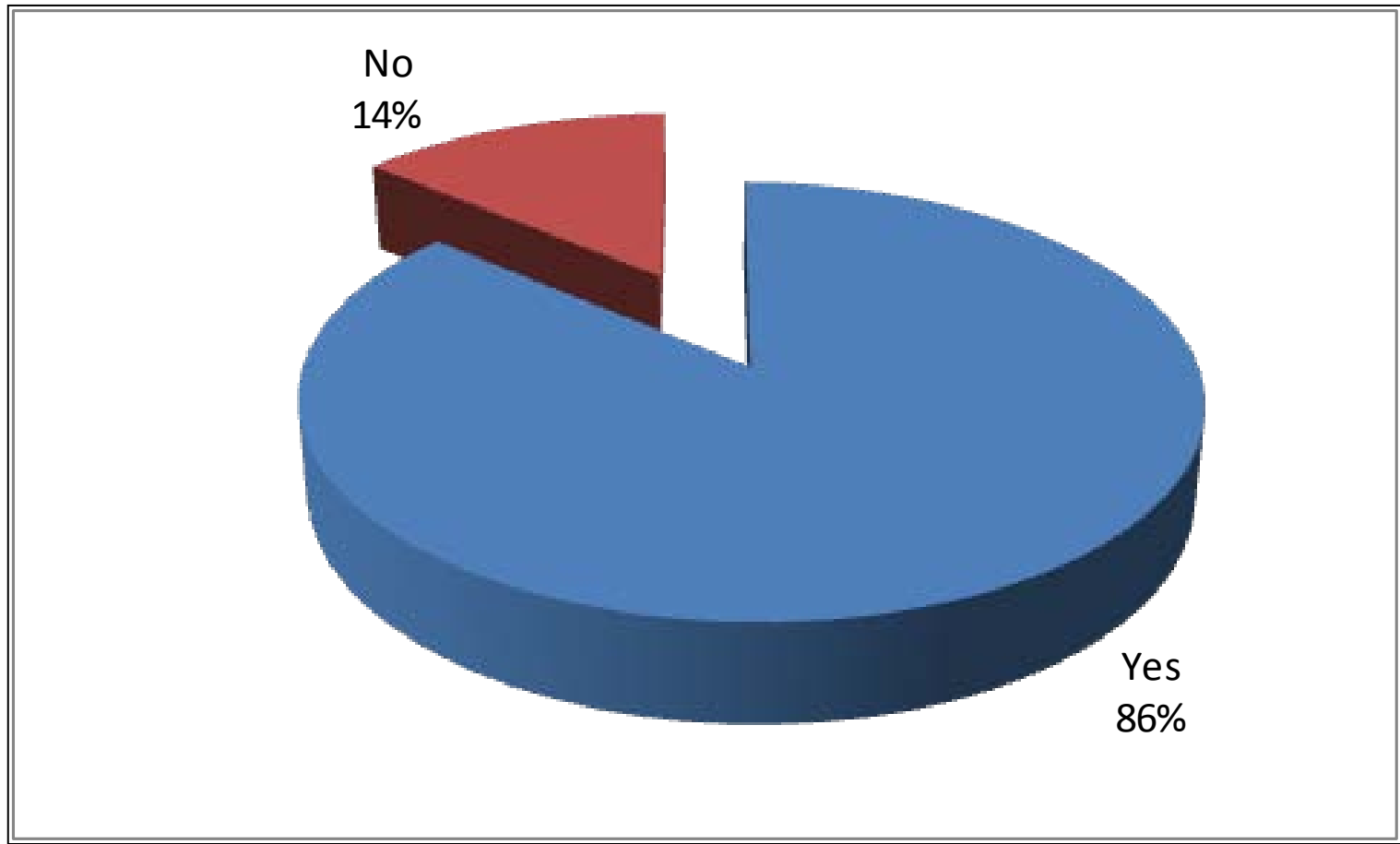
Population Size (Urban Zone Hermosillo)	291 Elementary schools
Error	5 %
Confidence	95 %
Sample Size Estimated	165 Elementary schools
Sample Size Surveyed	171 Elementary schools



RESULTS

From the 171 schools, the results are shown as follows:

Graph I.



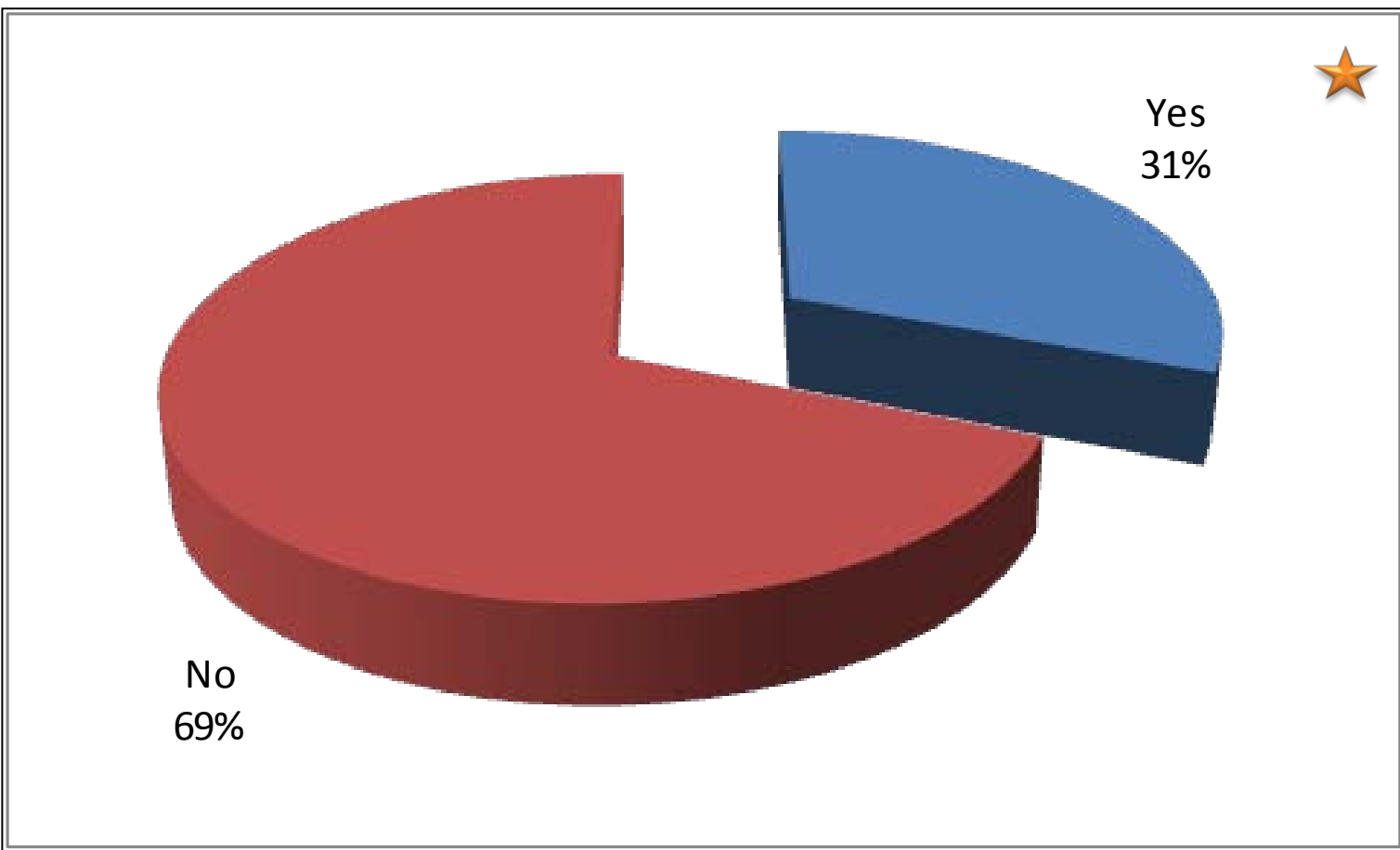
Interviewees having knowledge the terms Sustainability or SD.



RESULTS

From the 171 schools, the results are shown as follows:

Graph II.



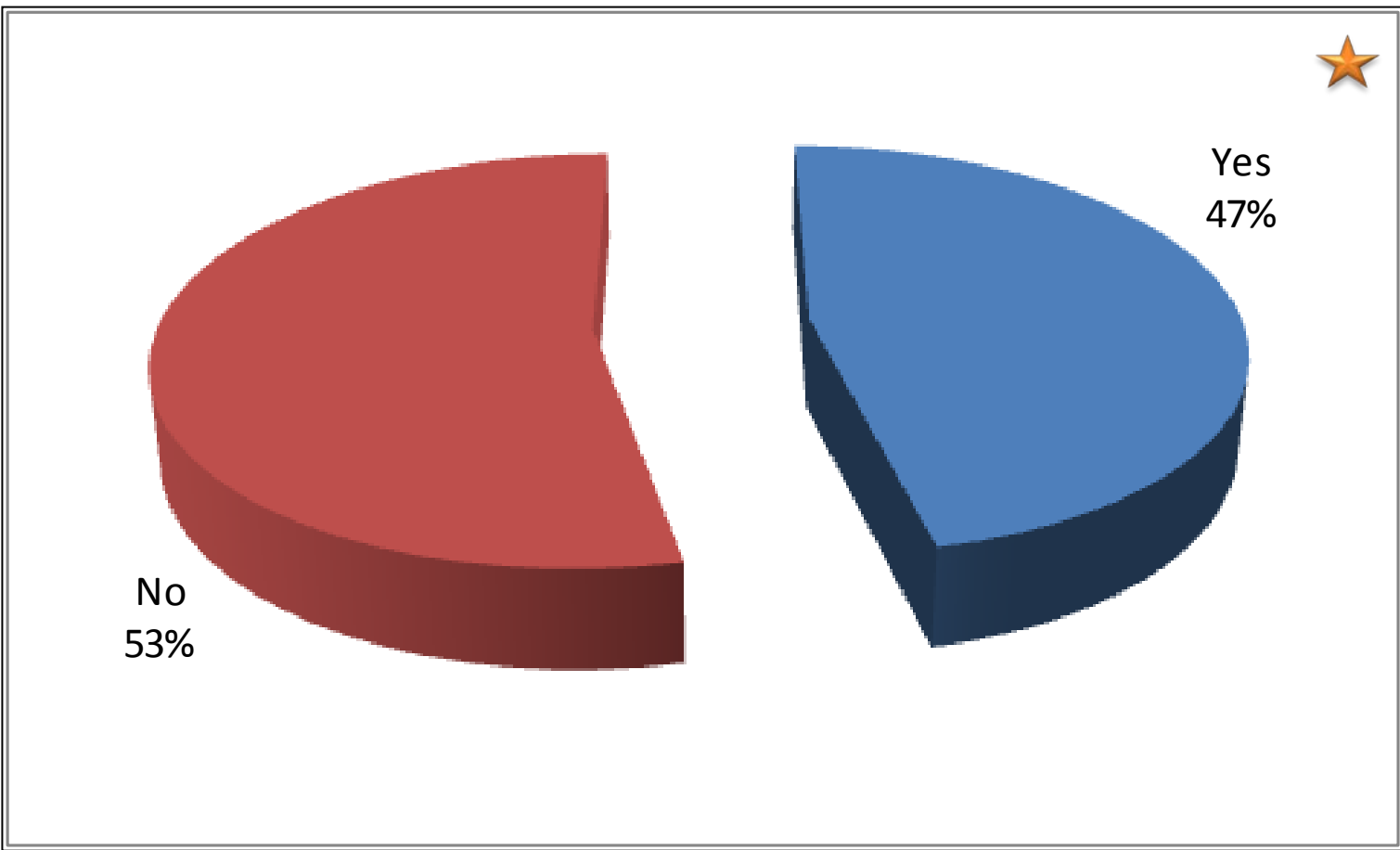
Schools with environmental or sustainability programs.



RESULTS

From the 171 schools, the results are shown as follows:

Graph III.



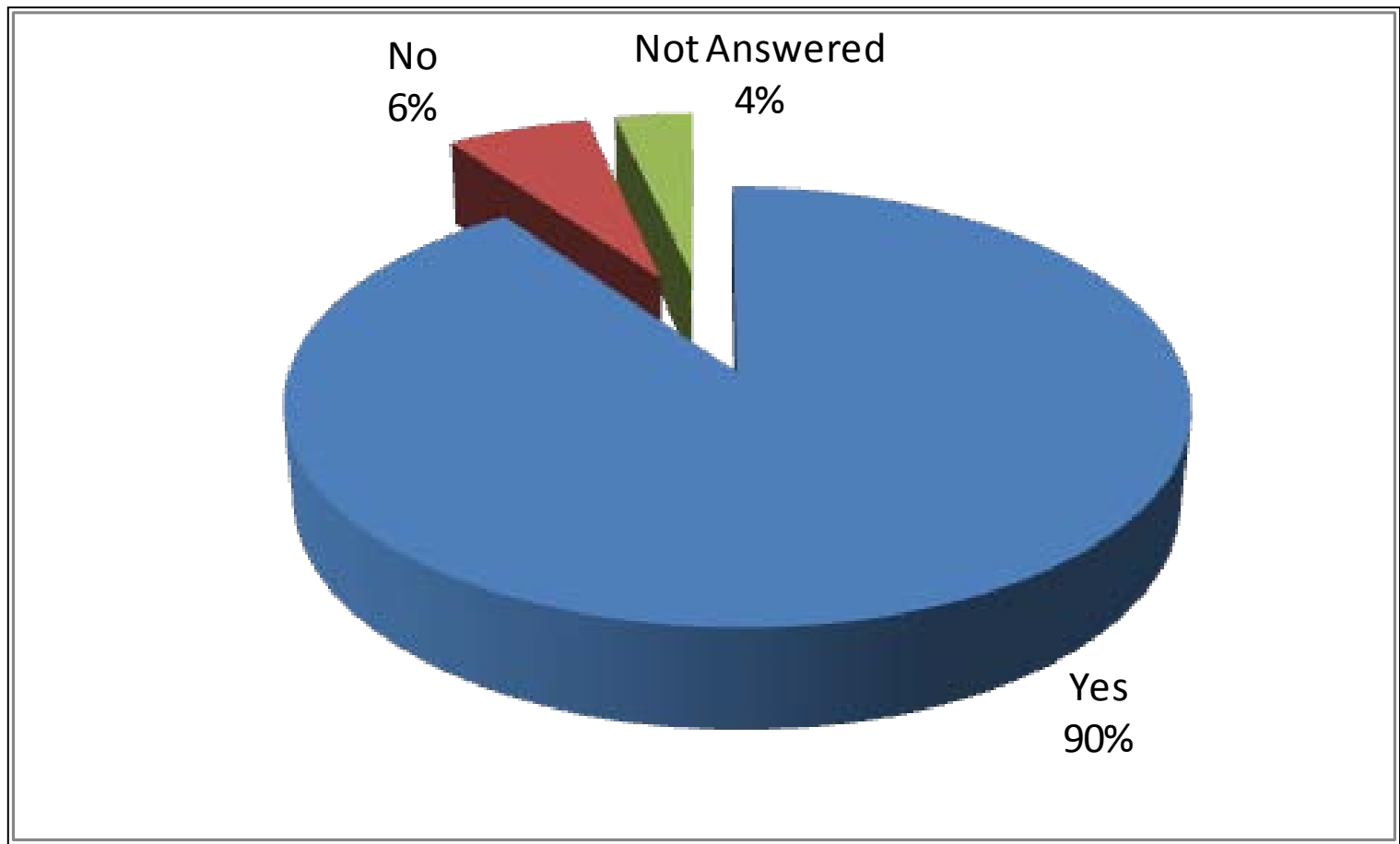
Interviewees aware on the UN Decade of ESD



RESULTS

From the 171 schools, the results are shown as follows:

Graph IV.

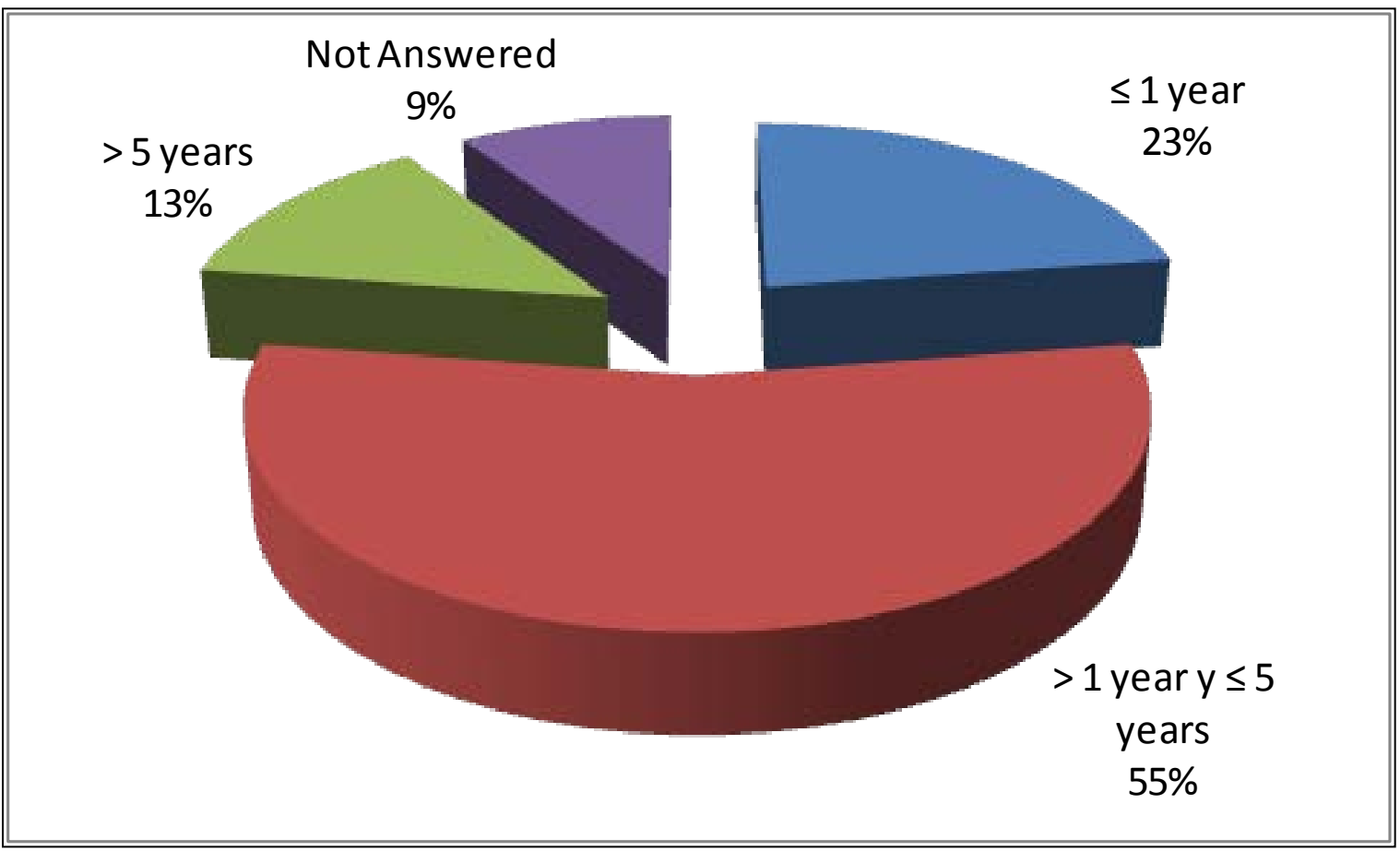


Schools interested in participating in programs with UNISON.



RESULTS From the 55 schools (from Graph II) having environmental or sustainability programs:

Graph V.



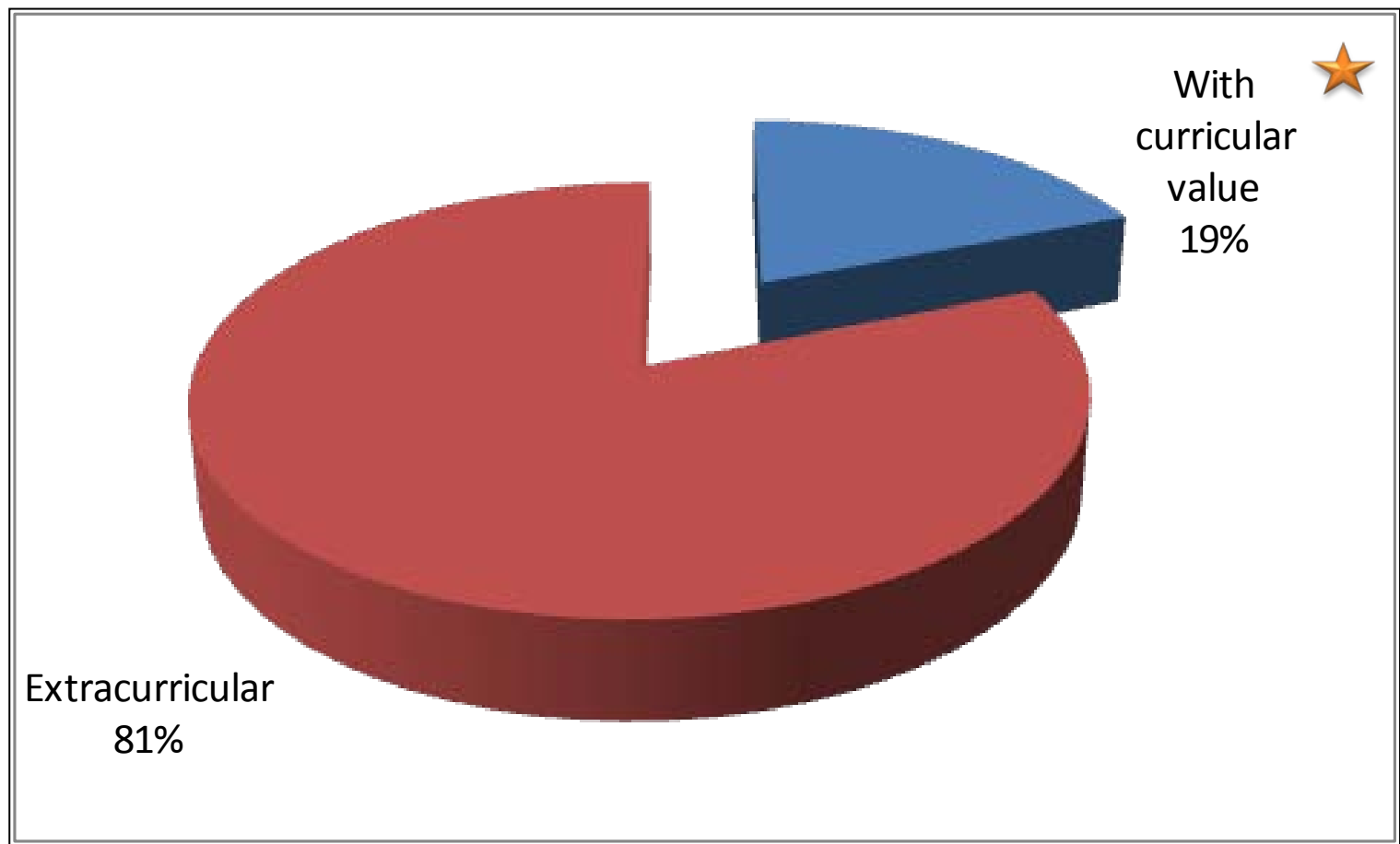
Period having environmental or sustainability programs



RESULTS

From the 55 schools (from Graph II) having environmental or sustainability programs:

Graph VI.



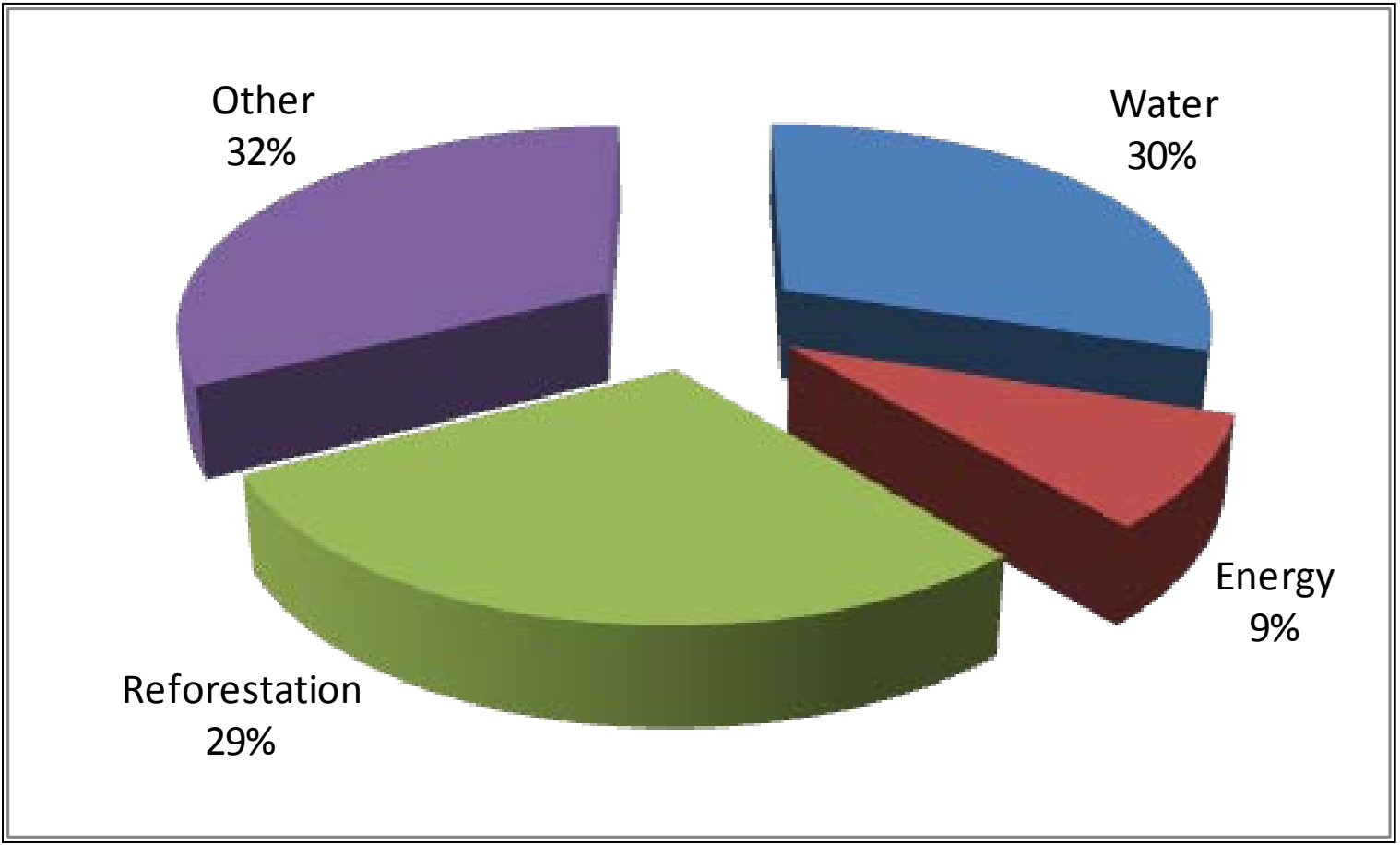
Category of these programs



RESULTS

From the 55 schools (from Graph II) having environmental or sustainability programs:

Graph VII.



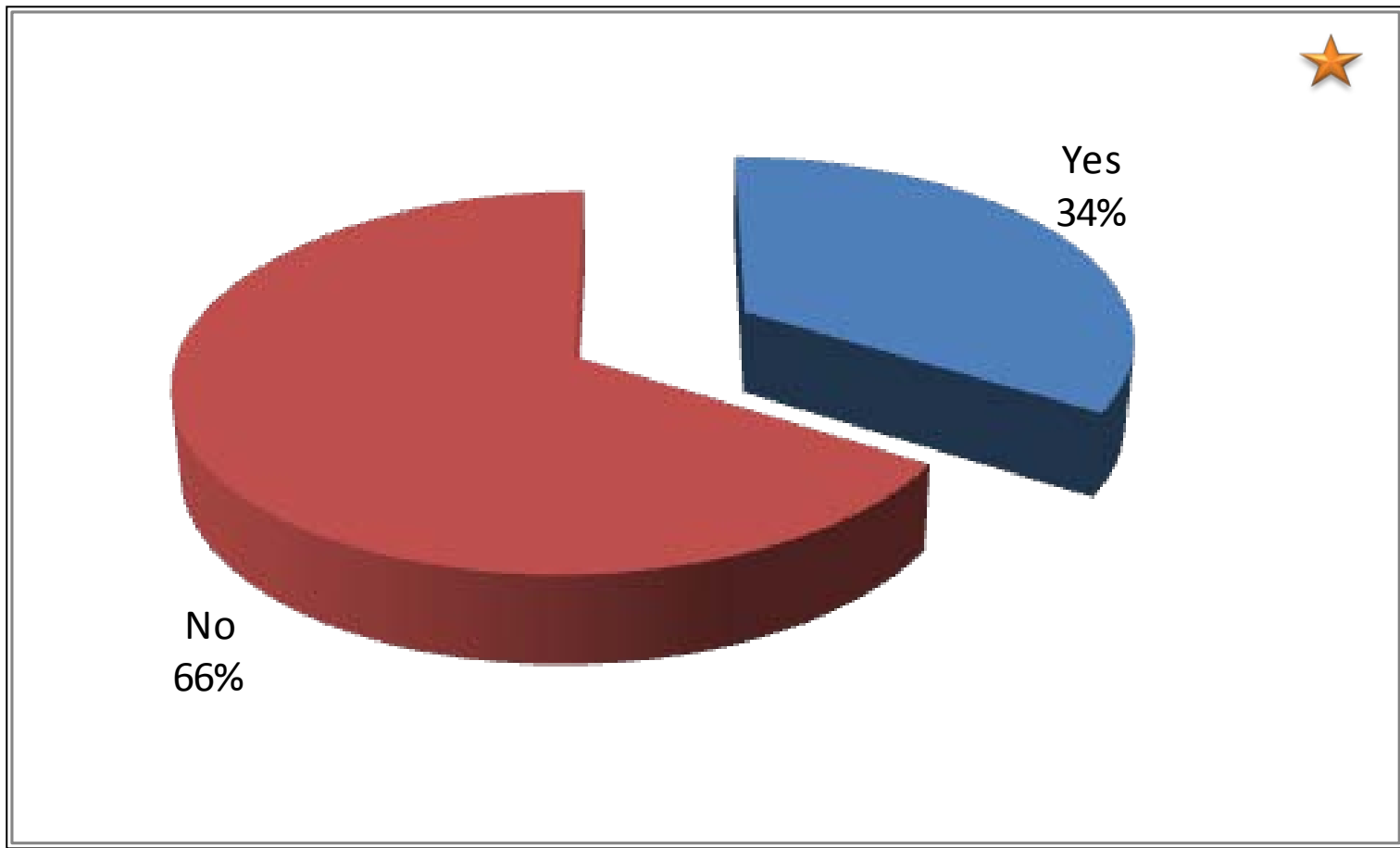
Areas addressed by the programs (they may have one or more areas)



RESULTS

From the 55 schools (from Graph II) having environmental or sustainability programs:

Graph VIII.



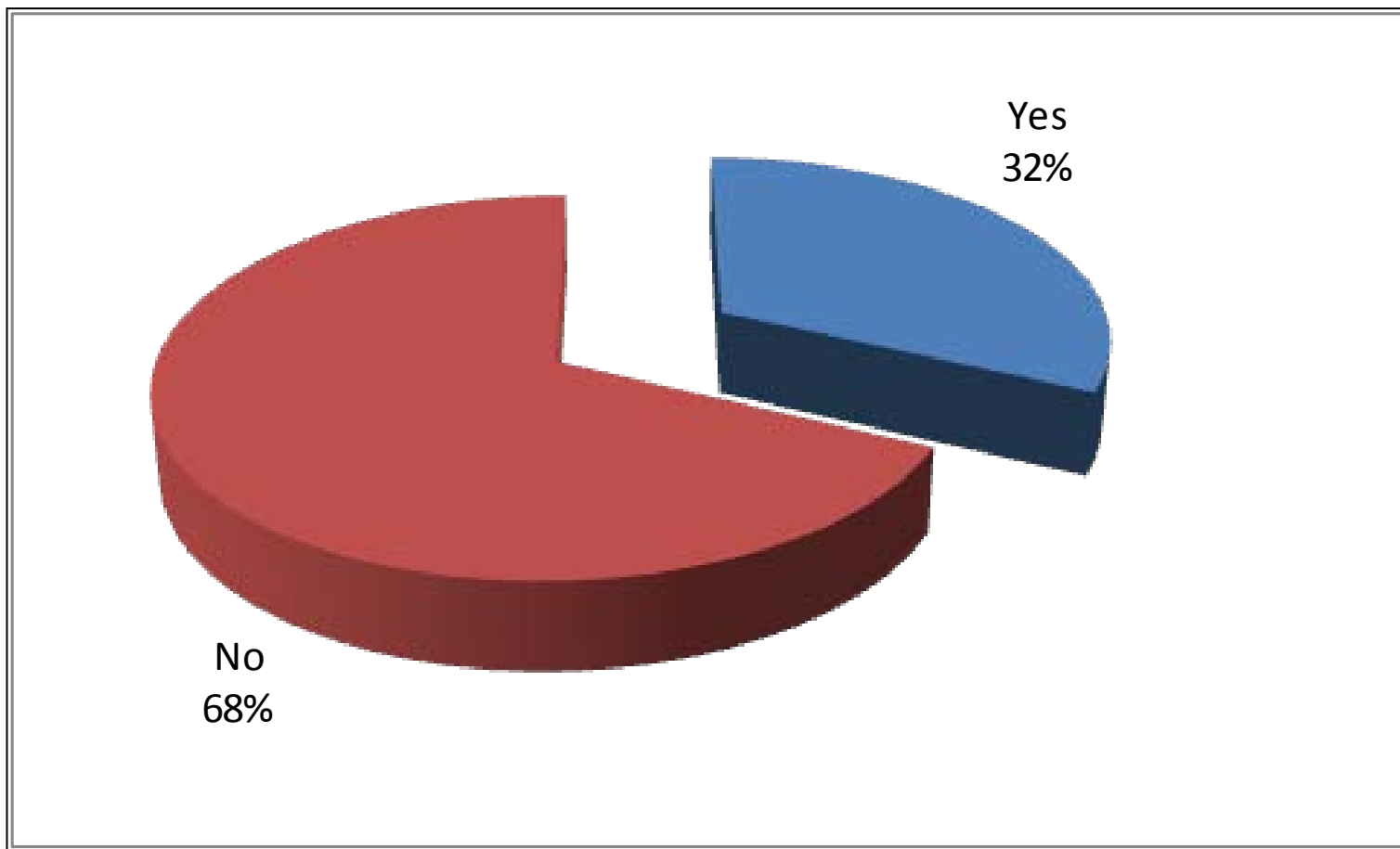
Schools having environmental or sustainability policy or statement



RESULTS

From the 55 schools (from Graph II) having environmental or sustainability programs:

Graph IX.



Schools having agreements w/ other organizations or institutions



REMARKS

ESD in Mexico is still developing and the steps are even incipient.

The city of Hermosillo, Sonora, Mexico, is no exception .



REMARKS

Less than half of participants know about the declaration
by UN Decade of ESD (2005-2014).

Almost 30% of schools has environmental or
sustainability programs as part of their students training.



REMARKS

Only 6% from the 171 participant schools consider these kinds of programs within their curriculum

In addition, from 55 schools having environmental or sustainability programs, few of them (32% *{only 10% from the global}*) have some kind of outreaching with other organizations.



REMARKS

The aspects addressed are mostly focused on **reforestation**, followed by efficient use of **water** and **energy**.

Some also address proper waste handling such as paper, cardboard and plastic.

However, this practice seems to be more collecting and separating waste rather than reusing it or recycling it.



CONCLUSIONS

Mexico must take real commitment for **ESD**, in formal, informal, and non formal ways.

The country must pay attention to our situation within the world, to provide a proper perception of the problems and encourage positive attitudes and behaviors in order to achieve sustainable development.

ESD is farther more than including environmental issues within academic programs...

it involves a lifestyle...



"Each time I reason, each time I try to use logic, I'm extremely pessimistic.

When I use my heart, when I use my faith - and I have a stainless faith in mankind - then I become optimistic.

A situation will arise that will awaken people, and we will suddenly understand that we have to join forces."



Jacques-Yves Cousteau



Thank You!

¡Muchas Gracias!



Moltes Gràcies!

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