



MUNICIPALIDAD DE  
**LIMA**

# **NEW AIR FOR EARLY CHILDHOOD LIMA PROJECT**

**Ing. Kyara Mariel Díaz Carrasco**



**4%**  
of mortality in Lima and  
Callao is caused by air  
pollution

Source: Copera Infancia, 2021



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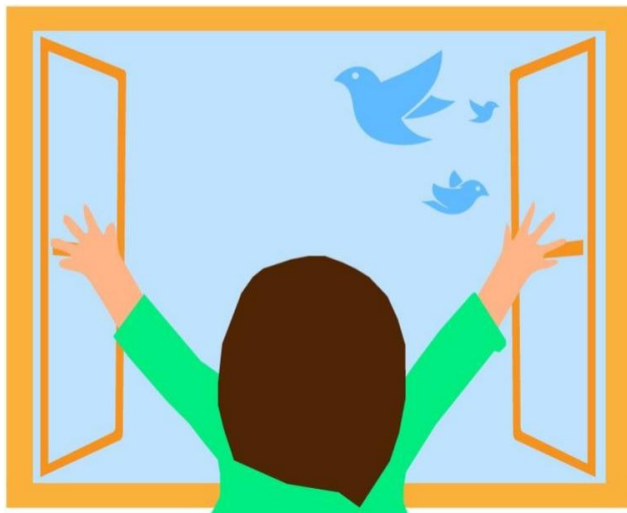
**This reality will not  
change by itself!**

# New Air for Early Childhood Lima Project

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The Municipality of Lima seeks to implement an air quality monitoring network focused on early childhood with the objectives of:

**PROMOTE VISIBILITY AND REDUCE EXPOSURE TO AIR POLLUTION OF EARLY CHILDHOOD** during their first years of life



**CONVERGENCIA  
PARA LA ACCIÓN**  
RED DE LÍDERES: POR UN COMIENZO CON FUTURO



**Horizonte  
Ciudadano**

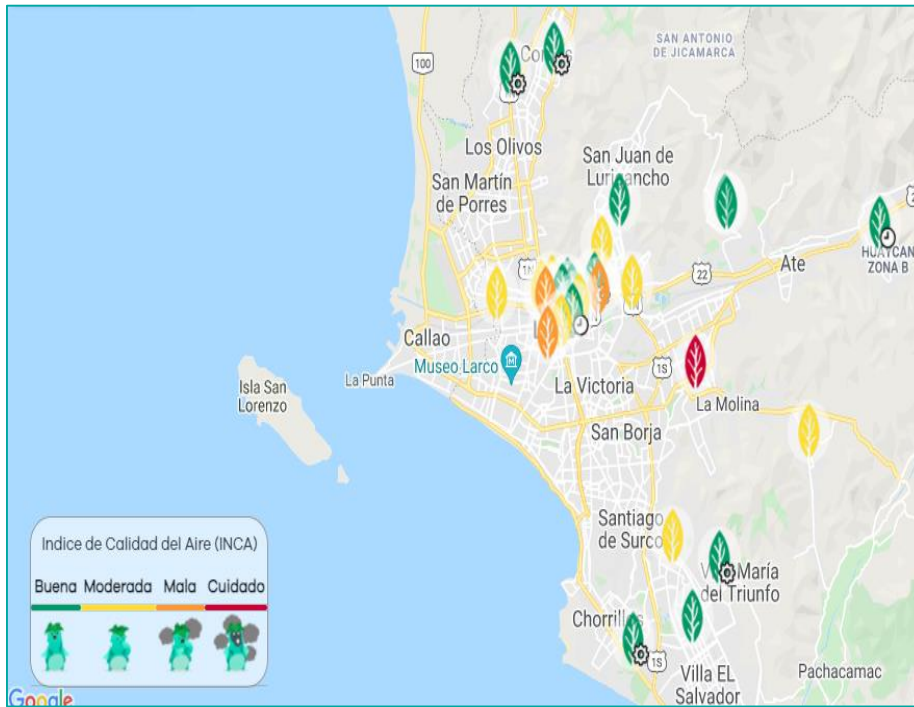


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# New Air for Early Childhood Lima Project

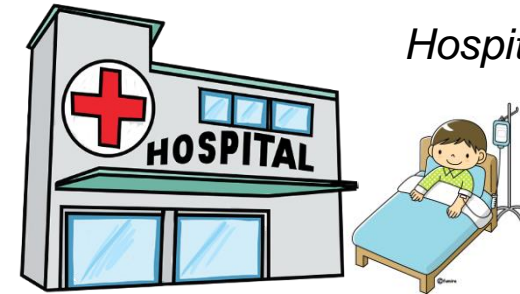
Air quality monitoring network with a focus on children



Shelter



Hospital



School



# Project phases

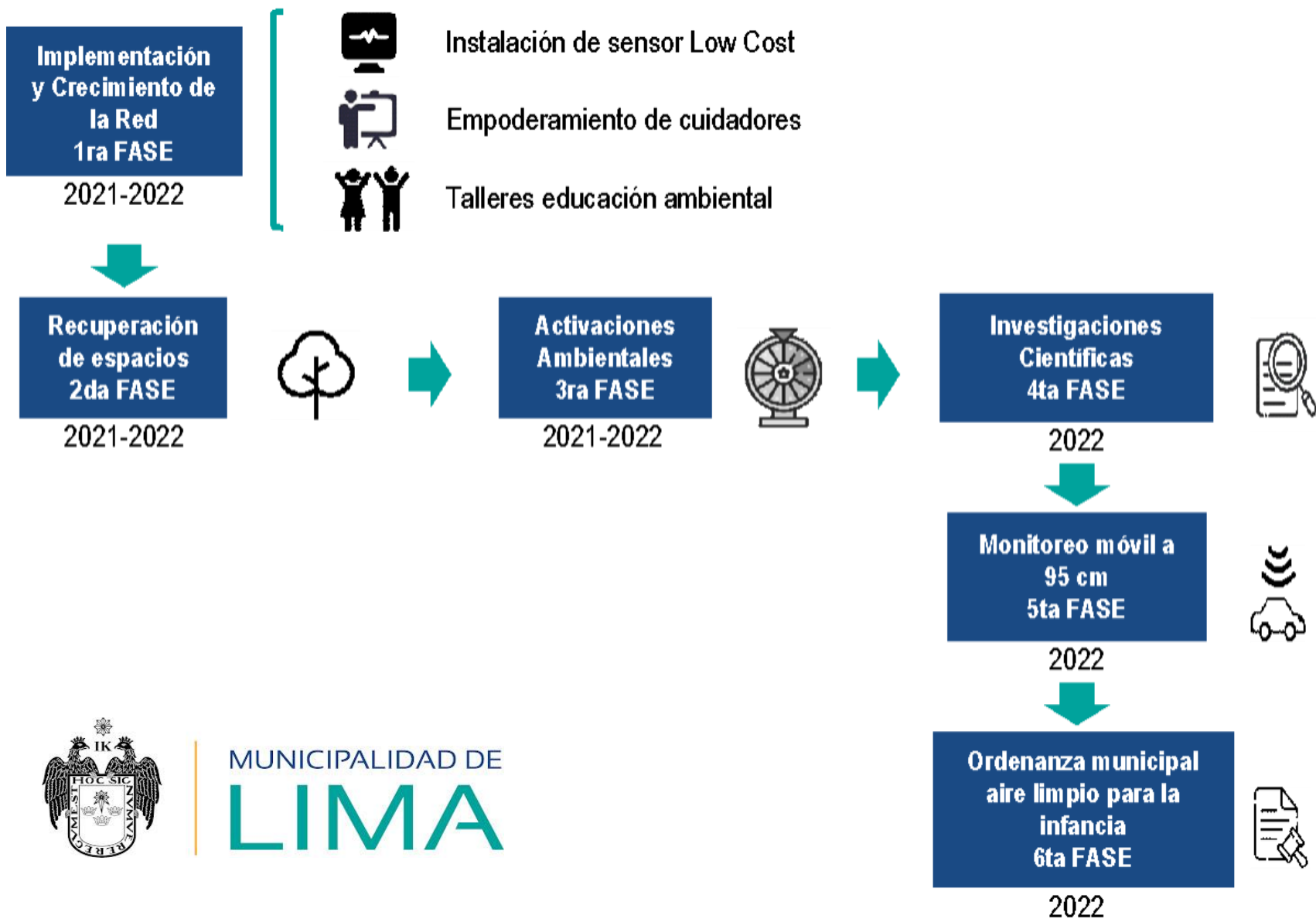
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# Phases of the New Air for Early Childhood Lima project



**Phase 1**

**Implementation and  
growth of the Network**



# Installation of **13 air quality sensors** in shelters, children's health centers and schools.

1



CAR Divino Niño  
(San Miguel)

4



Instituto Nacional de  
Salud del Niño  
(San Borja)

2



Casa Sinchi roca  
(Comas)

5



Institución Educativa Fe  
y Alegría N°04  
(San Juan de  
Lurigancho)

3



Puericultorio Pérez  
Araníbar  
(Magdalena del Mar)

6



Centro Infantil Municipal  
las Mercedarias  
(Cercado de Lima)



7



Centro Municipal Lima  
Infancia  
(Cercado de Lima)

10



Albergue Frieda  
Heller (San Borja)

8



COMAIN Casa de los  
Petisos y Centro  
Infantil Municipal Villa  
María  
(Cercado de Lima)

11



Institución Educativa Fe  
y Alegría N°02  
(San Martín de Porres)

9



Instituto Nacional de  
Salud del Niño  
(Breña)

12



Aldeas Infantiles  
SOS Pachacamac  
(Pachacamac)



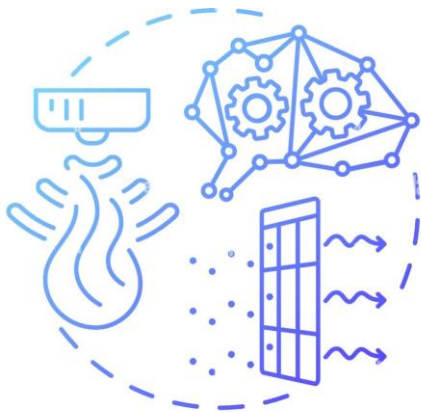


Colegio Fe y Alegría N°25  
(San Juan de Lurigancho)

The network has  
a coverage of

**28%\***

*\* Percentage at the district level of Metropolitan Lima*

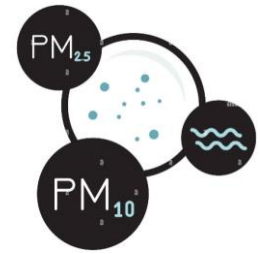


**37%\***

From the air quality  
network has a  
childhood focus

*\* Out of a total of 35 air quality sensors*

# Real-time air quality map displayed on the web or mobile



[bit.ly/AireLima](https://bit.ly/AireLima)



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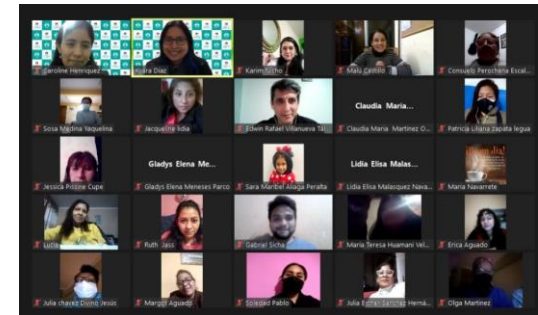
# Empowerment of teaching staff and caregivers



# Elaboration of the Newsletter Red de Aires Nuevos para la Infancia



Determination of air quality and **periods of least pollution per hour and day**. This information will be useful in planning children's outdoor activities at times and days with less pollution.



Source: <http://smia.munlima.gob.pe/documentos-publicacion/detalle/645>

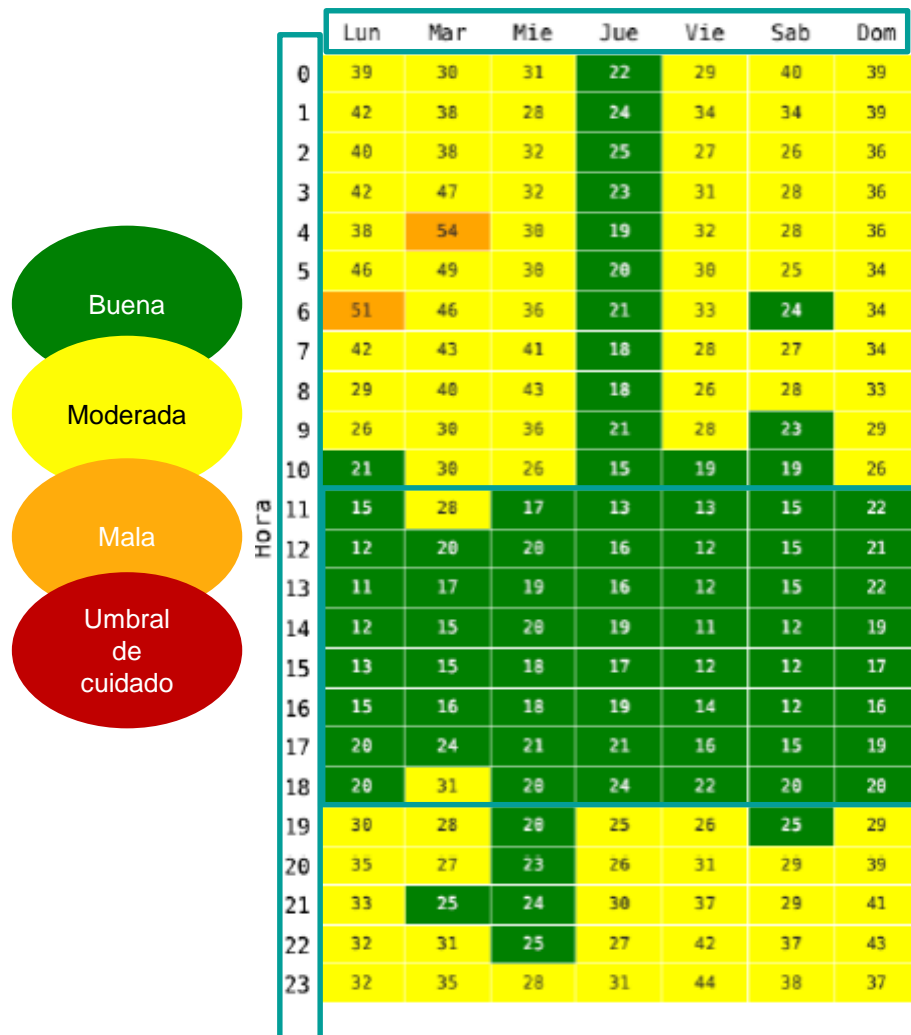


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# Determination of time slots with less pollution

Average concentration of PM2.5



*Concentration of particulate matter by hour of the day and day of the week*

Perez Aranibar Child Care Center  
 Values in ug/m3. Period: July 01 to 31, 2021.



# **Environmental Education Workshops to children**

# 21 environmental workshops on air quality



*Workshops to raise awareness and involve children in caring for the air.*



*Execution of experiment "Captured Particles"*



**Phase 2**

**Recovery of spaces**

# 1st INTERVENTION BASED ON SCIENCE



## Fe y Alegría N°04 SJL

Exposure of boys and girls from the surroundings of Fe y Alegría N°4 school to highly polluted air.



## OBJECTIVE

Adapt a space in Los Olivos park that facilitates less exposure to polluted air and promotes the comprehensive development of children from 0 to 5 years of age hand in hand with their caregivers, under an eco-pedagogical approach.

PM10 diario, "Colegio Fe y Alegria"  
Lun Mar Mie Jue Vie Sab Don

	Lun	Mar	Mie	Jue	Vie	Sab	Don
2021	Abril						
	241	234	238	234	287	263	272
	229	232	246	282	288	197	124
	Mayo						
	280	236	324	129	136	249	331
	336	249	262	298	437	483	319
	319	294	693	318	266	198	168
Junio							
239	237	531	476	254	157	335	
241	256	127	345	263	317	218	
345	316	321	216	131	157	228	
388	412	256	461	134	183	188	
Julio							
135	177	211	136	136	173	187	
224	375	148	174	228	231	287	
254	286	237	258	469	392	396	
321	298	345	321	145	149	323	
349	313	388	341	381	184	237	
418	356	238	128	111	111	158	





# RESULTS



**7** activations in  
public space



**81** m2 recovered  
facade



**583** m2  
of transformed  
space to avoid dust  
raising





# RESULT



Up to **45%**  
improvement in air  
quality

**7** rest and play  
furniture



**2** vehicle emissions  
campaigns



**436 m2** recovered  
from vegetation



**Phase 3**  
**Environmental**  
**Activation for**  
**children**

# THE BIG GRAY BUBBLE



Bernard  
van Leer  
FOUNDATION



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# ALLIES



PONTIFICIA  
**UNIVERSIDAD  
CATÓLICA**  
DEL PERÚ



**Horizonte  
Ciudadano**



Bernard  
van Leer  
FOUNDATION

**URBAN**95



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**PERÚ**

Ministerio  
de la Mujer y  
Poblaciones Vulnerables



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**“Given the many challenges children face, the air they breathe should not add to them”**



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