2023 UNECE Expert Meeting on Statistical Data Collection 'Rethinking Data Collection'

Example of use of paradata for the correct measurement of the progress of the field operation of the Agricultural Census of Mexico

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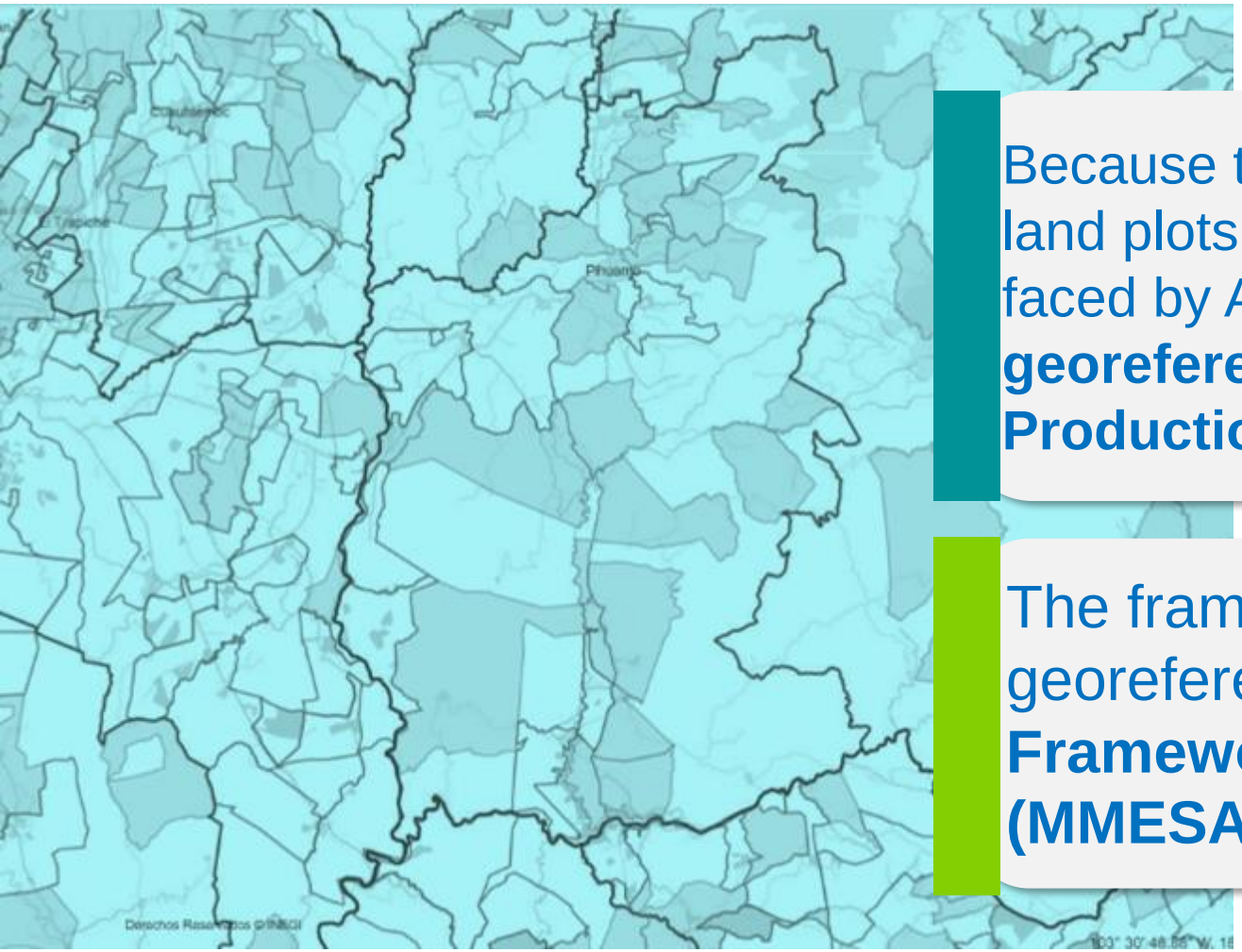
The Agricultural Census (AC22) was carried out in Mexico in 2022, after 15 years of conducting the previous census, in 2007

During the collection of information, **problems arose that needed to be resolved** as operations in the field progressed.

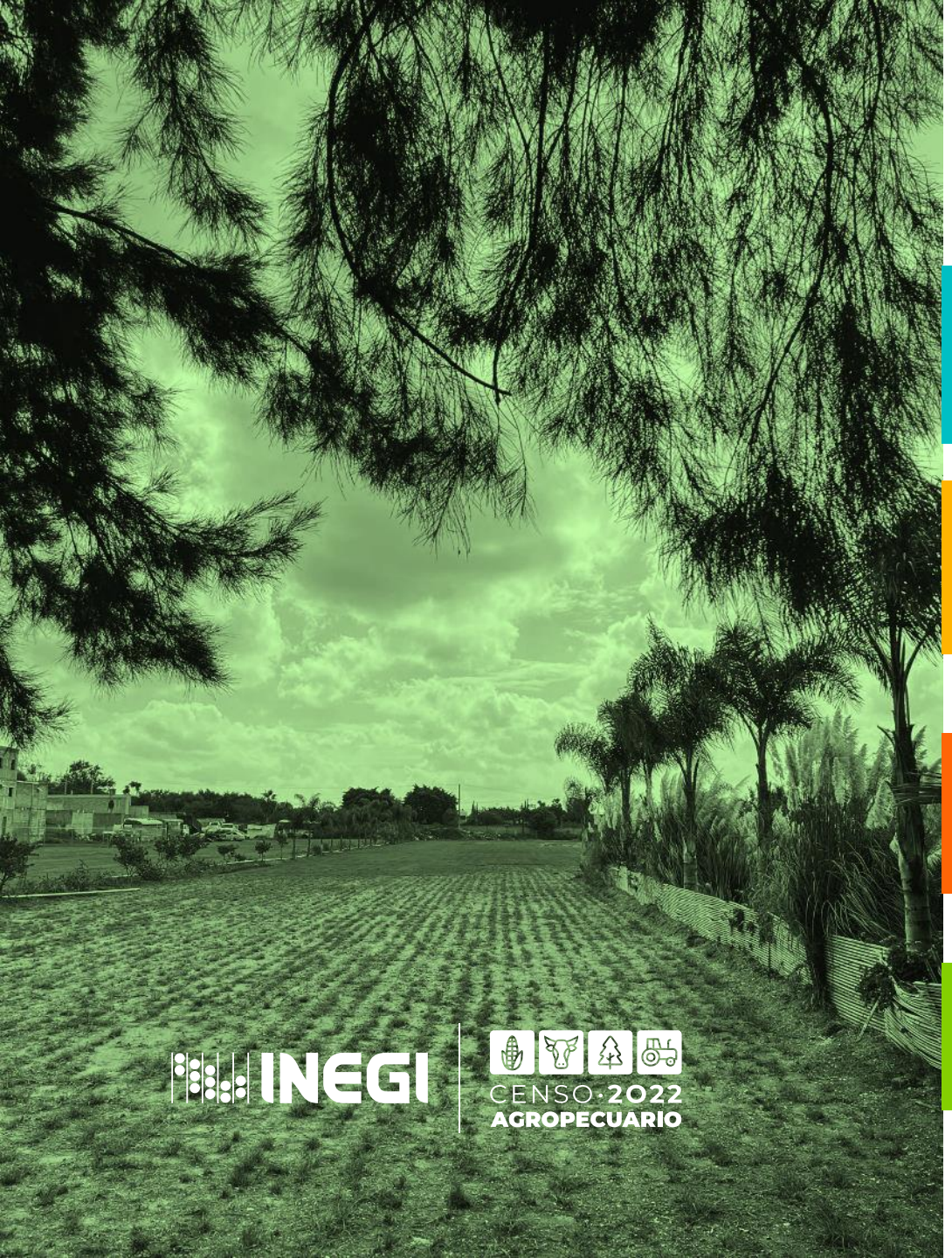
The resolution of these problems was found in the use of a paradata

The role of MMESAGRO in the CA22



Because the Agricultural Census must reflect all the land plots in the country, one of the main challenges faced by AC22 was **the identification and georeferencing of the land that comprise the Production Unit (PU)**

The framework for the identification and georeferencing activities was the **Master Framework for Agricultural Sector Statistics (MMESAGRO)**



The problem of *apparent additions*

Although the MMESAGRO was very important as a framework, it was also necessary to update it and provide feedback based on what was found in the field.

A land plot addition occurred when producers recognized new land as part of their PU (however, many of the land identified corresponded to land that previously belonged to other PUs).

Due to the changing dynamics of the agricultural sector, it was necessary to reconform a significant number of PU's in the census framework.

This implied generating "apparent additions" of land (i.e., land previously owned by one producer and now managed by a different producer).

The problem of *apparent additions* of land

- Although it was expected that there would be a number of "apparent additions", this was higher than expected

- Therefore, apparently, the number of land plots found in the field was substantially increasing, day by day, compared to the plots included in the MMESAGRO, which would generate a bias in the census universe

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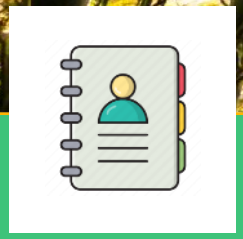
The use of paradata to solve the problem

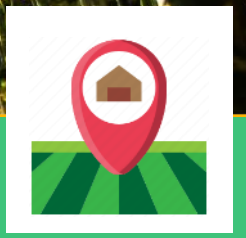


We chose to use a paradata: 300'000 cases were reviewed tabularly.

It was verified whether these additions of land plots corresponded to existing geostatistical references or whether they corresponded to new references.

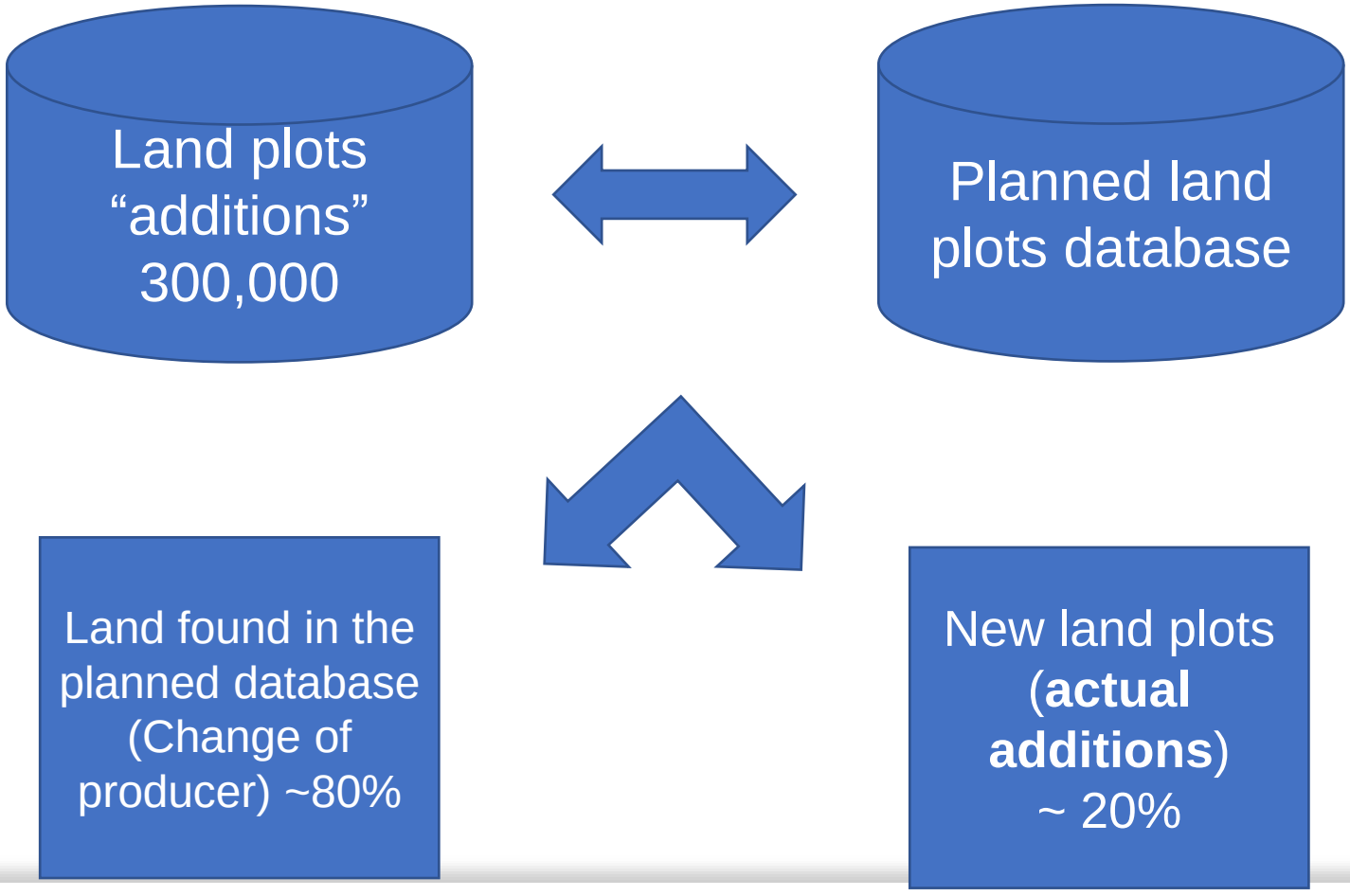
The results obtained were analyzed.

Only about 20% of them were found to be actual additions (i.e., new land with agricultural or forestry activity was identified).



The rest of the land was already existing and was only changing producers.

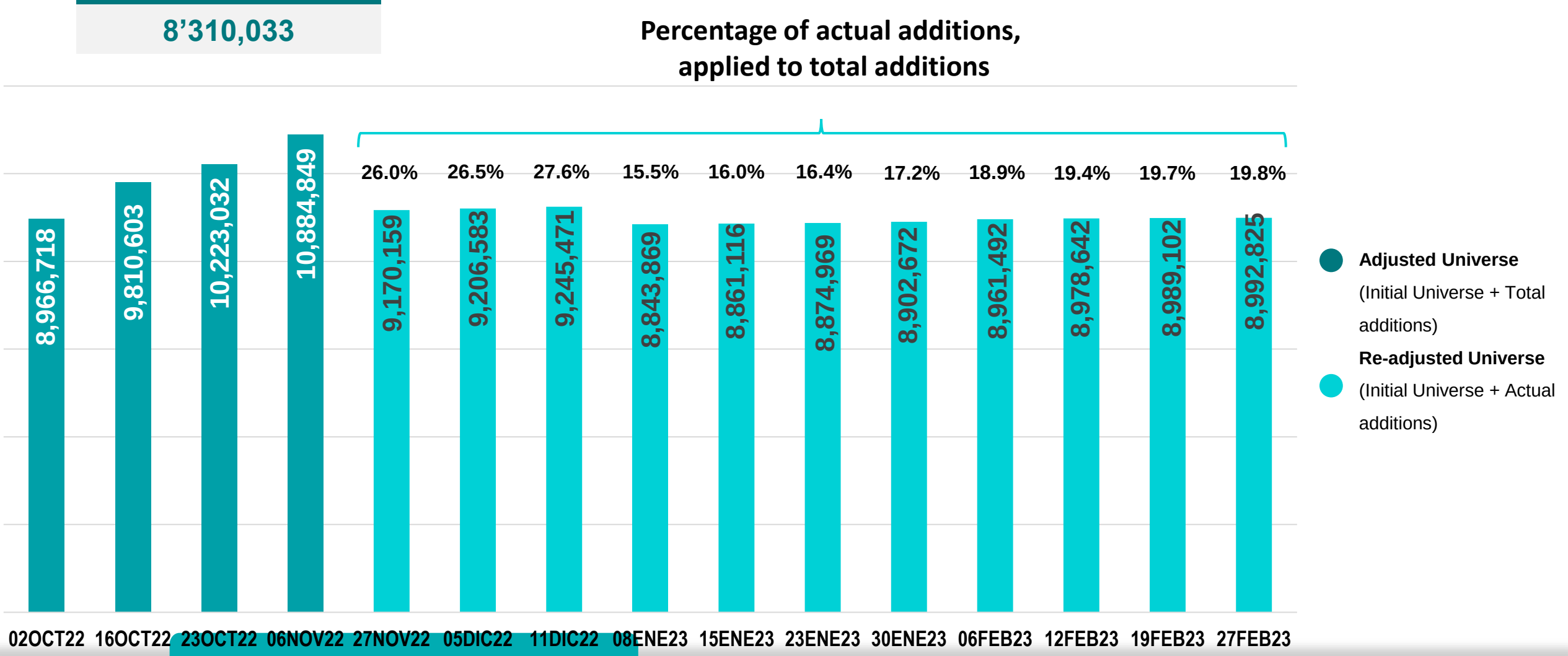
Data table analysis



Using paradata allowed to detect the new real land plots and readjust the framework

Initial working universe

8’310,033



Conclusions

From the analysis generated by the paradata used, it was possible to estimate **the real universe of plots**, and the progress in the field operation based on that number.

Although this estimate was not exact, it was a good parameter **to be able to move forward with greater certainty** during the AC22 data collection stage.

This is an example of one of the many paradata used in the Agricultural Census in Mexico: a data obtained from the analysis of what was happening in the field, in order to be able to follow without the large bias that was apparently being generated.

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