Food and Agriculture Organization of the United Nations

Guatemala

DIEM – Data in Emergencies Monitoring brief, round 3

Results and recommendations

August 2024

Data collection 6 December 2023 to 24 January 2024

Key highlights

- Thirty-three percent of households reported a decrease in their main source of income during the three months preceding the survey compared to the same period the previous year.

- A significant proportion (42 percent) of the households interviewed were agricultural producers, 62 percent of whom have experienced production difficulties, including pest outbreaks, irrigation difficulties, plant death and lack of resources to access agricultural inputs.

- Thirty-three percent of respondents mentioned using coping strategies according to the livelihood coping strategies index (LCSI). This is striking due to the period in which the survey was conducted, as it was at the end of the year when there is a higher demand for labour in rural areas. Among the strategies used were selling major assets or permanent migration.

- The main shocks mentioned by households were illness, accident or death of a household member (9 percent) followed by flooding or erosion (7 percent).

- The proportion of households reporting low dietary diversity rose from 7.5 percent to 14 percent from the second round in March 2023 to the current round in January 2024.

- It is recommended to implement actions that enable households to increase their income such as unconditional cash transfers, improve physical and economic access to food, and provide inputs and technical assistance to small producers.

- It is recommended to improve access to and provision of agricultural inputs due to the current high costs through low-cost alternatives.

Methodology

The Food and Agriculture Organization of the United Nations (FAO) conducted a household survey through the Data in Emergencies Monitoring System (DIEM-Monitoring), between 6 December 2023 and 24 January 2024, to monitor agricultural livelihoods and food security in rural and urban Guatemala. Data were collected through a digital questionnaire in all 22 departments of the country and occurred after the second planting season. The data were collected in the form of computer-assisted telephone interviews. The survey reached 4 686 households, which included households that participated in the first two rounds and additional randomly generated numbers which served to complete the target of 213 interviews per department.

The first round was carried out in July 2022 and the second in February 2023. Comparisons have been made to these two rounds throughout the brief in order to monitor food security and agricultural activities in the country. The comparisons take into account that the surveys were conducted at different times of the seasonal calendar, which greatly influences the food security situation for households dependent on the agriculture sector.

Figure 1. Countries with an established DIEM-Monitoring System

Source of data: FAO. 2023. DIEM-Monitoring. In: *FAO Data in Emergencies Hub*. Rome. [Cited 1 July 2023]. https://data-in-emergencies.fao.org
Source of map: United Nations Geospatial. 2023. Map of the World. In: *United Nations.* [Cited 12 January 2023]. https://www.un.org/geospatial/content/map-world-1

The final boundary between the Sudan and South Sudan has not yet been determined. Final status of the Abyei area is not yet determined. The dotted line represents, approximately, the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

About DIEM-Monitoring

FAO established the DIEM-Monitoring System to collect, analyse and disseminate data on shocks and livelihoods in countries prone to multiple shocks. DIEM-Monitoring aims to inform decision making by providing regularly updated information on how different shocks are affecting the livelihoods and food security of agricultural populations.

At the core of the DIEM-Monitoring System are country-level dashboards. Readers are encouraged to explore these dashboards to gain more insight into the context of Guatemala and other countries.

Learn more at https://data-in-emergencies.fao.org/pages/monitoring

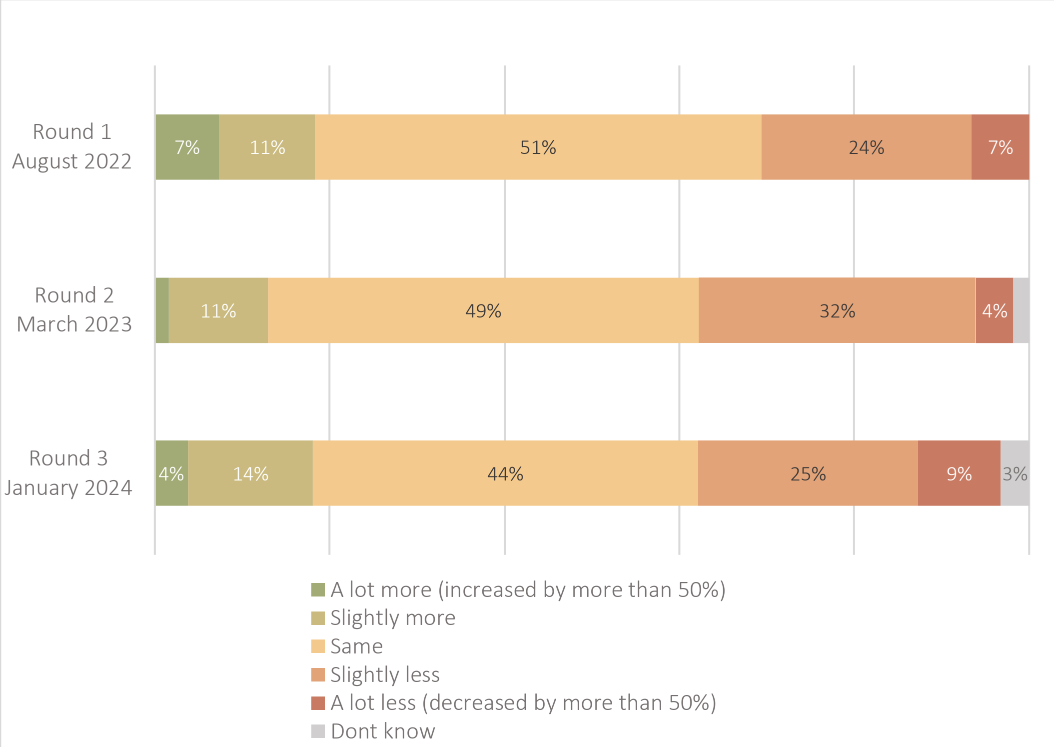
Income and shocks

Thirty-three percent of households indicated a reduction in their income compared to the same period the previous year, affecting agricultural households much more than non-agricultural households (Figure 2). Considering the economic activity of the respondents, the following can be mentioned: for those engaged in crop production, 42 percent reported that their income remained the same, while 27 percent saw a slight decrease and 13 percent recorded a moderate increase. In the case of livestock or animal production, 41 percent indicated stability in income, while 27 percent noted a slight drop and 17 percent experienced an increase. On the other hand, those not engaged in agriculture noted that 55 percent maintained a consistent income, 17 percent reported a slight decrease and 15 percent noted an increase.

Forty-two percent of households experienced shocks, mainly illness or death of a household member (9 percent), and flooding or erosion (7 percent).

The majority of households were headed by men (56 percent), followed by women (44 percent). Most of the income was generated by men (54 percent), followed by women (32 percent) but it is important to mention that in 13 percent of respondent households, both women and men contributed to the household economy. It is also necessary to say that much of the household work and some agricultural activities carried out by women were not considered within the economic contributions of the household. However, in a significant percentage of households, women were the main income earners (30 percent), followed by men (24 percent).

Figure 2. Change in household income (percentage of households)



Source: FAO. 2024. Data in Emergencies: Guatemala assessments results (August 2022, March 2023 and January 2024). [Accessed on 9 August 2024]. https://data-in-emergencies-hqfao.hub.arcgis.com/pages/monitoring-country-specific/. License: CC BY-NC-SA 3.0.

Crops

Figure 3. Guatemala agricultural calendar

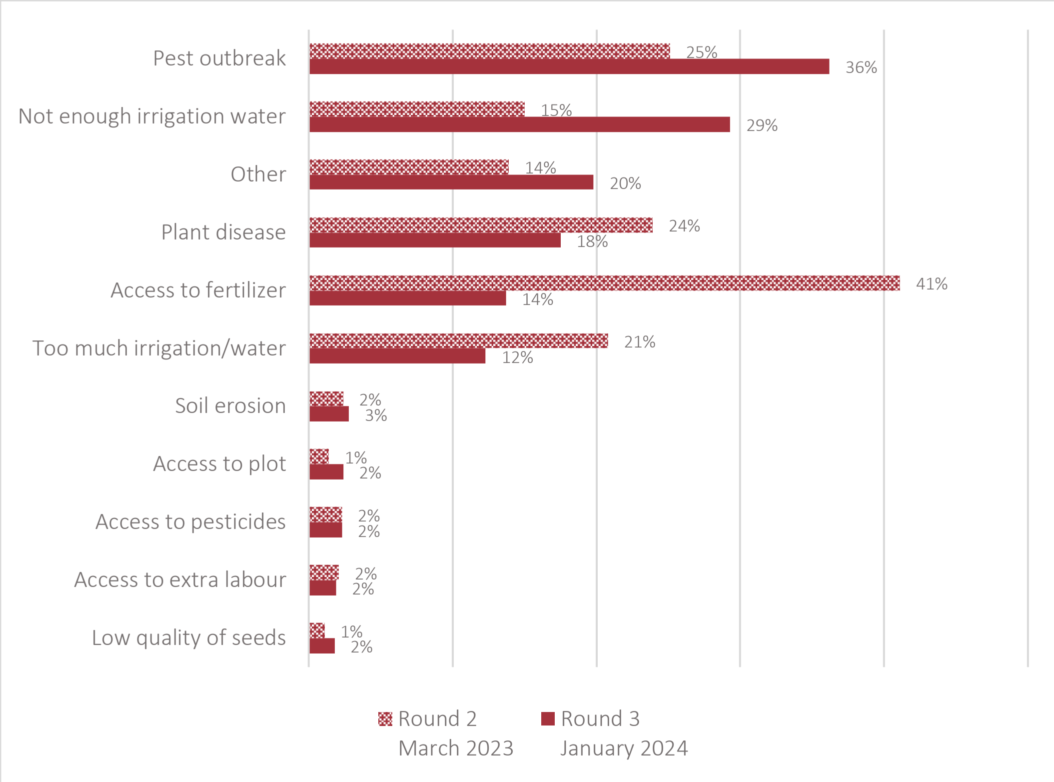
Source: FAO. 2023. GIEWS Country Briefs: Guatemala. In: *FAO*, 29 April 2024. Rome. [Cited 9 August 2024]. fao.org/giews/countrybrief/country.jsp?code=HND&lang=es

Households that were engaged in agriculture in the year prior to the survey grew maize (73 percent) and beans (4 percent) as their main crop in *Primera* 2023. Other farmers grew coffee (4 percent), and some cash crops such as tomatoes (3 percent) and potatoes (2 percent).

Sixty-eight percent of the farmers relied on rainfall as their main source of irrigation and 16 percent used a surface source (river, lake, stream, pond or other).

Sixty-two percent reported experiencing some crop production difficulties. The main difficulties reported included pest outbreaks (36 percent) and shortage of irrigation (29 percent), among others (Figure 4).

Figure 4. Crop production difficulties (percentage of crop producing households)



Source: FAO. 2024. Data in Emergencies: Guatemala assessments results (March 2023 and January 2024). [Accessed on 9 August 2024]. https://data-in-emergencies-hqfao.hub.arcgis.com/pages/monitoring-country-specific/.

Farmers relied on multiple sources to obtain their seeds. The main reported source was using their own production methods (60 percent). Twenty-seven percent procured seeds from local markets or through agricultural input dealers.

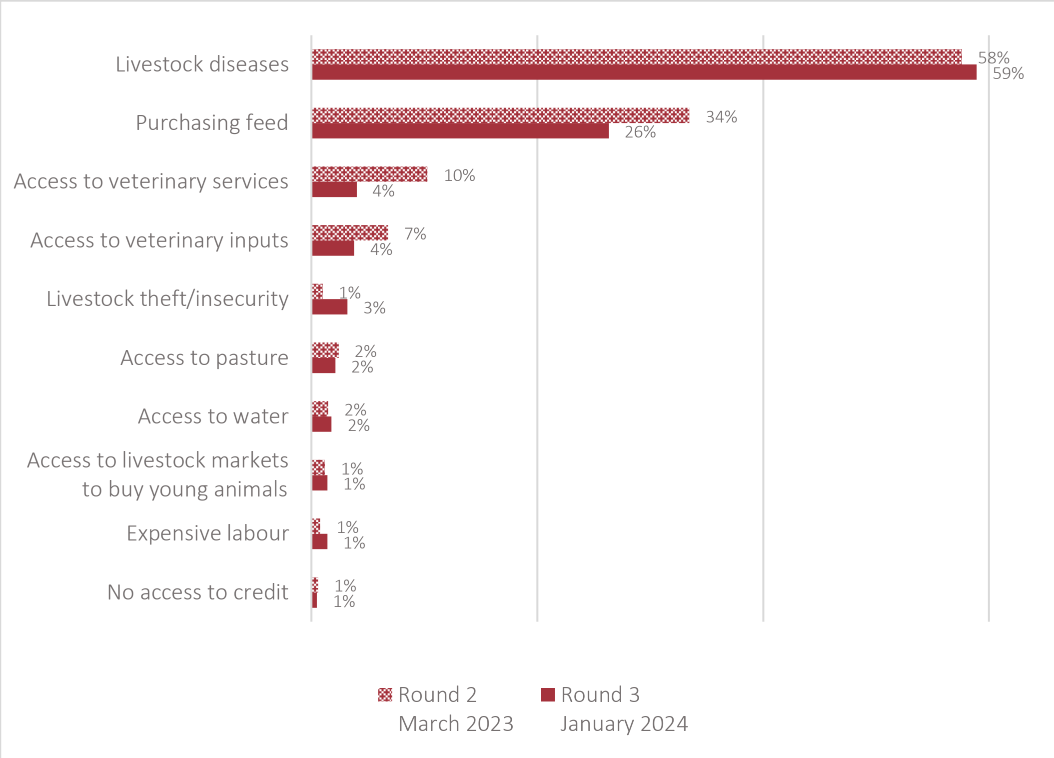
In addition, 33 percent of the surveyed agricultural producer households faced difficulties selling their crops. These difficulties were mainly attributed to low selling prices (36 percent), and high transport costs and other expenses associated with marketing (24 percent), among other factors. In addition, 81 percent of the farmers agreed that they had changed the sowing date in the last ten years.

Livestock

Eighty-four percent of the livestock producers were mainly engaged in poultry farming, while 8 percent focused on pigs and 6 percent on cattle. The remainder engaged with other animals such as goats, sheep and smaller species like rabbits. Of this group, a significant 42 percent faced problems in animal production, which is reflected in the fact that 59 percent of the interviewed livestock producers reported a decrease in the number of animals they owned compared to the same period last year.

Sixty percent of the producers bought feed for their livestock and economic interests (25 percent for cattle, 58 percent for pigs and 64 percent for poultry), while 26 percent produced their own fodder, or obtained it from their own or rented fields. Eight percent used open pastures, while the rest used other sources for livestock feed. Of the total number of respondents, 42 percent reported facing difficulties in livestock production (Figure 5).

Figure 5. Livestock production difficulties (percentage of animal producers)



Source: FAO. 2024. Data in Emergencies: Guatemala assessment results (March 2023 and January 2024). [Accessed on 9 August 2024]. https://data-in-emergencies-hqfao.hub.arcgis.com/pages/monitoring-country-specific/. License: CC BY-NC-SA 3.0.

In addition, 30 percent found it difficult to sell their livestock production, as prices were too low (34 percent), while 19 percent considered the cost to be too high, and 18 percent found little demand.

Food security

The data collected reveals an alarming trend in dietary diversity across the country. In the second round of the survey (March 2023), 73 percent of households had a high household dietary diversity score (HDDS). However, this figure experienced a sharp decline in the third round with only 54 percent of households maintaining the highest level of dietary diversity.

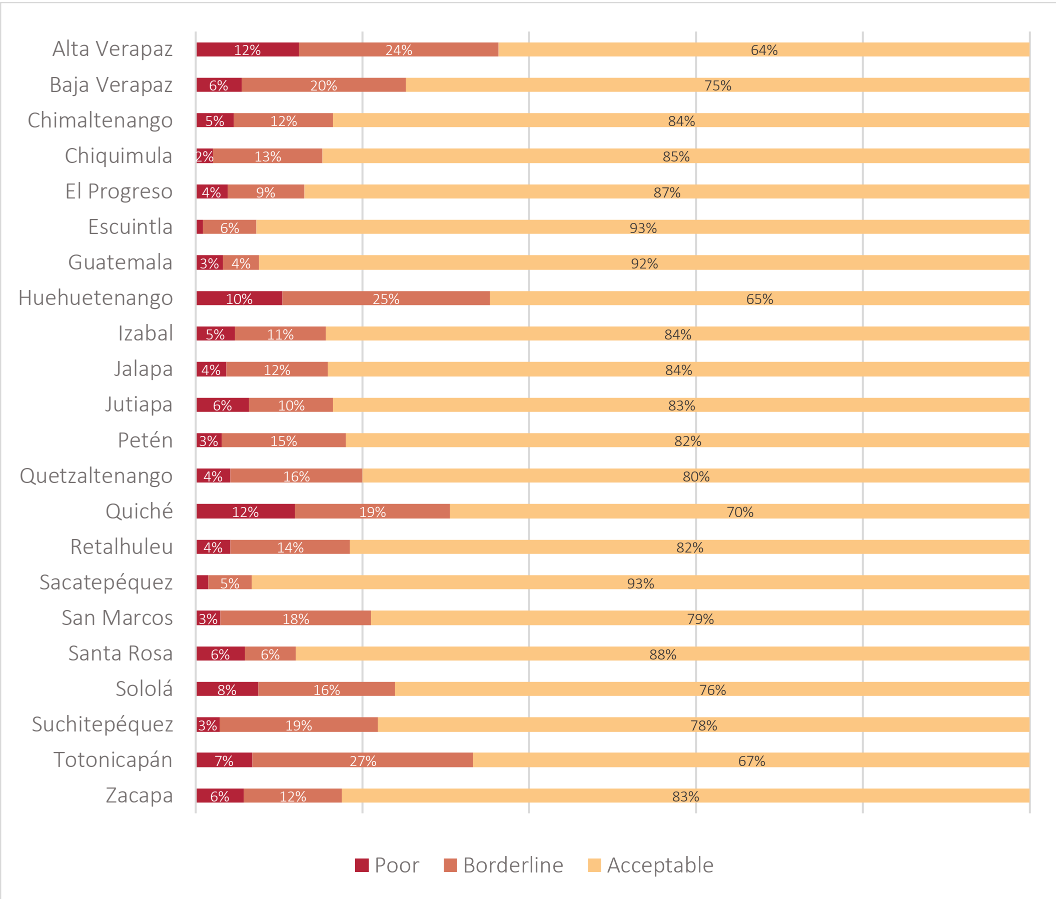
The analysis of dietary diversity in different departments of Guatemala yielded mixed results. In general, high dietary diversity was observed in most departments, with Sacatepéquez (74 percent), Guatemala (71 percent), Retalhuleu (71 percent) and El Progreso (66 percent) registering the highest percentages in this category. On the other hand, the departments showing the highest proportion of households with low dietary diversity were Petén (26 percent), Huehuetenango (26 percent), Baja Verapaz (25 percent) and Totonicapán (21 percent).

According to the results, 80 percent of Guatemalan households were in the category of acceptable food consumption according to the food consumption score (FCS).

Fourteen percent of households had a moderate level of food consumption, indicating that they may face some limitations in terms of food diversity and quality. In addition, 6 percent of households were in the poor food consumption category.

It was observed that the majority of households in the departments of Sacatepéquez (93 percent), Escuintla (93 percent) and Guatemala (92 percent) had an FCS categorized as acceptable, suggesting adequate access to nutritious and quality food (Figure 6). However, there were departments where a significant proportion of households had poor FCS, such as Alta Verapaz (12 percent), Quiché (12 percent) and Huehuetenango (10 percent), which is double the national average for this category.

Figure 6. FCS by department



Source: FAO. 2024. Data in Emergencies: Guatemala assessment results (January 2024). [Accessed on 9 August 2024]. https://data-in-emergencies-hqfao.hub.arcgis.com/pages/monitoring-country-specific/. License: CC BY-NC-SA 3.0.

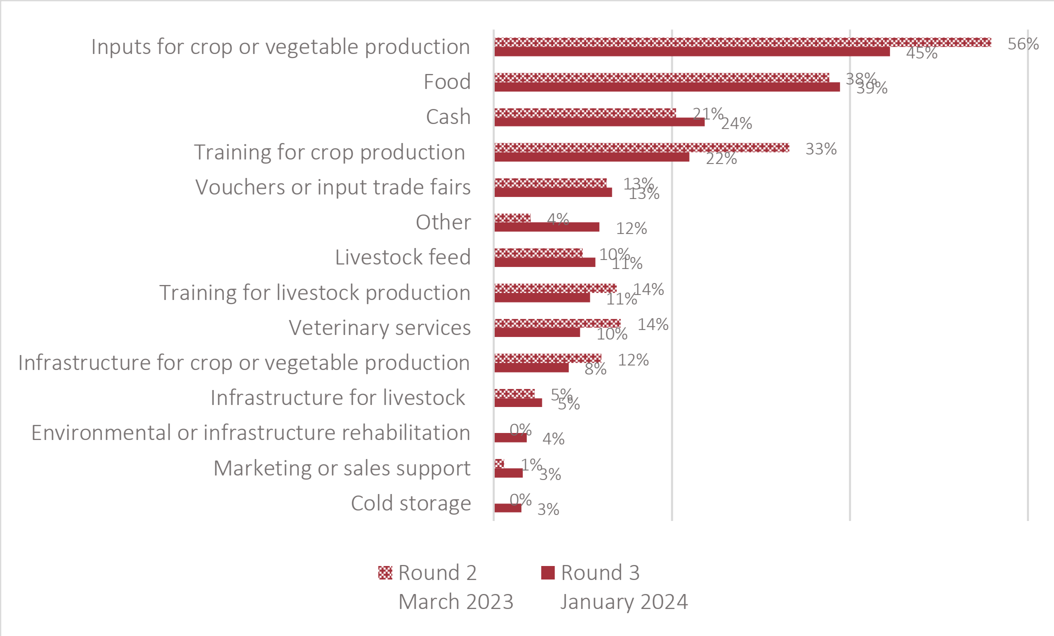
It is evident that the use of emergency coping strategies is quite widespread at the national level, with the lowest percentages found in the departments of Guatemala and Sacatepéquez, with ranges below 20 percent.

Needs

Between the second and third rounds there was a significant decrease in the need for assistance in agricultural activities, from 83 percent to 65 percent (Figure 7).

For agricultural production, there was a need for timely access to inputs for 45 percent of producers. Animal feed for livestock was the most requested need for livestock production (11 percent). Thirty-nine percent of producers reported the need for access to feed.

Figure 7. Main agricultural needs (percentage of households)



Source: FAO. 2024. Data in Emergencies: Guatemala assessments results (March 2023 and January 2024). [Accessed on 9 August 2024]. https://data-in-emergencies-hqfao.hub.arcgis.com/pages/monitoring-country-specific/. License: CC BY-NC-SA 3.0.

Recommendations

Short-term recommendations (1–6 months)

- Implement actions that allow households to increase their income, such as unconditional cash transfers, and increase physical and economic access to household food.

- Build and/or strengthen farmers' networks so that in the next productive cycle they can exchange genetic material (seeds and breeding stock of livestock species), in order to conserve the native and/or endemic resources of the different productive areas across the country.

- Improve access to and provision of agricultural inputs due to the current high costs, through low-cost alternatives and the use of local materials to meet the needs of producers, such as the production of organic fertilizer and pesticides, bio-inputs and a selection of native or creole seeds.

- Provide technical assistance aimed at reducing crop damage other than plant diseases during the growth phase, which would allow for the identification, prevention and reduction of plant diseases.

- Promote new methodologies for agricultural technical assistance to promote sustainable forms of food production in smallholder plots, mainly in rural communities in Guatemala.

- Protect the poultry heritage of families, as it is a source of income that allows access to food and promotes an increase in the number of poultry at family level.

- Implement animal prophylaxis plans to promote the health of livestock species of interest to families. Promote vaccination days for backyard poultry and alternative poultry feed.

- In terms of marketing, promote cooperative systems that allow certain costs to be reduced, as well as short marketing circuits in order to favour producers' links with the market and consumers' access to lower-cost foods.

Medium/long-term recommendations (6 months and more)

> Promote production practices, implementing technology and techniques adapted to the conditions of the land for crops and livestock.

> Support the opening of new local and international markets to commercialize new by-products.

> Collaborate in strengthening the use and commercialization of agricultural inputs that are organic and environmentally friendly, reducing the use of petroleum derivatives.

> Strengthen cooperation with government institutions to design a strategy to respond to acute food insecurity.

> In accordance with the political and social dynamics of Guatemala, it is necessary to stimulate local food production consumption mechanisms, in order to leverage fair prices for small producers and for consumers in general, and to access food at a lower cost, with respect to national agricultural production markets.

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