PERMANENT MISSION OF PORTUGAL
GENEVA

DH - 85/2024

The Permanent Mission of Portugal to the United Nations Office and other International Organizations in Geneva presents its compliments to the Office of the United Nations High Commissioner for Human Rights and, with reference to the request of the Special Rapporteur on the human rights to safe drinking water and sanitation, dated 6th February 2024, has the honour to enclose herewith the input of the Portuguese authorities to his report on "Water and food nexus: a human rights approach to water management and food systems".

The Permanent Mission of Portugal avails itself of this opportunity to renew to the Office of the United Nations High Commissioner for Human Rights the assurances of its highest consideration.

Geneva, 02 April 2024

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MINISTÉRIO DOS NEGÓCIOS ESTRANGEIROS
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Input from Portugal for the Special Rapporteur on the human rights to safe drinking water and sanitation – Questionnaire to inform the thematic report on "Water and food nexus: a human rights approach to water management in food systems".

1. **What are the problems linked to the overexploitation of aquifers, abusive extraction of surface water, or pollution due to agricultural or livestock activities in your country?**

In a projection for 2040, the World Resources Institute, signals a high risk of water stress for the area south of the Tagus. Climate scenarios for the coming decades point to a negative evolution of annual rainfall over the Portuguese territory, which is even more severe in the south of the country.

Although this is not the case in all parts of Portugal, there are several areas that regularly face water scarcity. In the Algarve, for example, the persistence of low rainfall rates is already showing a worsening of this trend, with a very significant reduction in rainfall since the mid-1990s. Since 2009, aquifer recharge has been below the annual average, leading to very low piezometric levels. The hydrological drought in the Algarve region is currently structural, with a tendency to worsen due to the expected effects of climate change, with predicted very significant impacts on the economy, on the well-being of the population and on the increase in pressure on water bodies, impoverishing their chemical and ecological status.

Despite efforts to improve the efficiency of all uses, water consumption for all uses has increased consistently in the recent decades due to the growth of economic activities such as agriculture and tourism. The effects of climate change will require the adaptation of current uses to less intensive practices and the use of alternative sources of water, such as recycled water.

Water abstraction for urban use is mostly from surface water, which is easier to manage and treat. Aquifers, however, are mostly used for irrigation, especially in more remote areas and because of easier and cheaper access to water without the need to build distribution infrastructure. The cost of abstracting water for irrigation (*taxa de recursos hídricos*) is very low, and in some cases (engines below 5hp) no license or fee is required for water use. In the south of Portugal, agricultural plots are larger and allow for more extensive agricultural production.

In addition, with the construction of the Alqueva reservoir and additional irrigation canals in the 90's, the Alentejo region suddenly was able to produce

agricultural products more intensively. However, in many cases, the water abstraction licences were granted several years ago and took into account circumstances available at the time, but were not adapted to the current context of climate change, with less and less recharge to the aquifers. This puts additional pressure on aquifers, especially in areas further away from this large reservoir, where increasingly large production facilities have been installed. In the South-west of Portugal, the main reservoirs have consistently reduced the water available and the same is happening to the existing aquifers.

2. **Are there legal regulations or policies in place to control overexploitation or polluting discharges -pesticides, nitrates excess, slurry- from agricultural or livestock activities? And if they exist, are they effective? Can you provide examples?**

- **The Water framework *Directive***, aims to ensure the reduction of groundwater pollution and the prevention of worsening pollution (*article 39.º of Law 58/2005 of 29 December, as amended by Decree-Laws 245/2009 of 22 September, 60/2012 of 14 March, 130/2012 of 22 June and Laws 42/2016 of 28 December and 44/2017 of 19 June.*)":

1 – The areas of the territory which constitute zones at risk of water pollution caused or induced by nitrates of agricultural origin must be subject to controlled use in order to safeguard their quality, y in particular by:
a) Delimitation of these special protection zones;
b) Establishing and applying of rules and restrictions on the use of these areas, subject to respective authorisation.

- **Code of Good Agricultural Practices (CBPA)[1]**

It is periodically revised and ensures the protection of water against pollution, caused/induced by nitrates of agricultural origin, by providing information that allows the preservation of environmental quality.

This CBPA contains general guidelines, aimed at helping farmers to rationalize fertilisation practices that affect nitrogen and phosphorus dynamics in agricultural ecosystems. Information on the impact of nitrogen on agriculture is updated and information is provided on the dynamics of phosphorus and the impact resulting from of its application to soils is provided.

- **Scheme applicable to livestock effluents management**

[1] The CBPA, was approved under Order No. 1230/2018, February 5 (also see article 6.º of Decree-Law no. 235/97, September 3, amended by Decree-Law No. 68/99, March 11)

Regulation nº. 79/2022, 3 February, defines the sustainable management of livestock effluents and its regulatory standards, technical standards within the framework of the authorization procedure for complementary activities for the management of livestock or agricultural effluents when dealing with composting units, intermediate units, biogas production units or treatment stations, livestock effluents, as well as agricultural and livestock farms that value livestock effluents.

It also foresees complementary standards for the transport, storage and recovery, both agricultural and organic, of other animal by-products (SPA) and derived products (PD), categories 2 and 3, and fertilizers containing them, the use of which is authorized (without prejudice to Regulation (EC) no. 1069/2009 of the European Parliament and of the Council, of 21 October.

- **Ordinance No. 259/2012 of 28 August,** aims to reduce water pollution caused or induced by nitrates of agricultural origin and to prevent the spread of such pollution in vulnerable areas.

- **Prohibition of the deposit or dumping of waste on the ground, subsoil or watercourses**

  Order nº. 25297/2002, of 27 November provides for the protection of natural environmental components, by prohibiting in rural areas the abandonment or deposit on the soil, subsoil or watercourses, of any non-biodegradable waste that is alien to the production processes and natural systems of rural areas, or that results from agricultural, forestry, agro-industrial and livestock activities.

- **Decree-Law no. 235/97, of 3 September,** as amended by Decree-Law no 68/99 of 11 March, transposes Directive no. 91/676/CEE on the protection of water against pollution caused by nitrates from agricultural sources.

- **Manual** [2] **for Sustainable Management of Livestock Effluents** in the context of the NREAP (New Regime for the Exercise of Livestock Activity).

3. Are there problems with the drinking water supply due to overexploitation or contamination of sources by agricultural or livestock activities? If so, can you describe them?

[2] https://www.drapc.gov.pt/base/documentos/manual_gestao_efluentes_pecuarios.pdf

No problems with drinking water supply due to overexploitation by agricultural or livestock activities have been identified.

However, the depletion of water resources poses problems in terms of water quantity and quality, with implications for the treatment processes used to purify water for human consumption. In the Algarve region, for example, investments are being made to ensure that water can be taken from the dead volume of some reservoirs when needed, and a desalination plant is being built to ensure for additional water resilience in the region.

This means additional costs for abstraction and treatment of water for human consumption as the amount of water available in the reservoirs is reduced.

On the other hand, some areas with intensive livestock activities are more likely to have additional phosphorus and nitrogen levels in water resources, requiring for additional treatment. The recent revision of the Drinking Water Quality Directive establishes the need to carry out a risk assessment also on the water sources under the supervision of the Portuguese Environmental Agency (APA), so in the future we will have more elements on the possible presence of pollutants derived from these types of contamination.

4. How is water distribution regulated in drought situations in the country? What are the priorities, and to what extent are these regulations effective?

According to the Water Law (article 64.º of Law No. 58/2005, of 29t December, in its current version) in the case of conflict between different uses the priority criteria are those established in the River Basin Management Plan, which, in any case, always gives priority to water abstraction for drinking purposes. In the case of a declaration of water scarcity, the order of priority may be revised by the River Basin Authority, after consultation of the River Basin Council.

In the last decade, there has been an increase in the frequency of dry periods and the absence of "wet years". There have been significant changes in rainfall patterns, which could be worsened by the effects of climate change.

- **The Council of Ministers Resolution No 80/2017,** established the Prevention, Monitoring and Contingency Plan for Drought Situations. It establishes alert thresholds, methodologies for assessing the impact of

drought effects, features of procedure manuals for standardizing operations, providing contingency plans and measures to mitigate negative impacts.

It also created the Permanent Commission for the Prevention, Monitoring and Follow-up of the Effects of Drought (CPPMAES), which is composed by responsible government members: Environment and Agriculture, Forests and Rural Development, Finance, Internal Administration, Local Administration, Labor, Solidarity and Social Security, Health, Economy and Maritime.

In order to approve, monitor implementation and define policy guidelines, the CPPMAES Technical Advisory Working Group [3], has been set up to monitor the agro-meteorological and hydrological drought situation (monthly monitoring reports), carried out by GPP and APA.

- **Order Nº. 6543/2023, 2nd Series, of June 16 -** Establishes the Trás-os-Montes Regional Water Efficiency Plan. The main objectives are:
  a) Assess water availability and consumption for current uses and establish prospective scenarios, taking into account the effects of climate change;
  b) Define water efficiency goals and time horizons, especially those associated with the agricultural and urban sectors;
  c) Identifying short and medium-term measures to promote water reuse and water efficiency;
  d) identifying of structural solutions and new sources of water to compensate for reduced resources due to climate change.

- **Irrigation and Drought -** To promote water efficiency in agriculture, the National Irrigation Authority is directly involved in the implementation of the 31 **Plans and Contingencies for Drought Situations** (Group II Works) and the **Algarve and Alentejo Regional Water Efficiency Plans (PREH).**

PREH-Alentejo sets 78 measures (42 in the agricultural sector). PREH-Algarve foresees 57 measures (22 in agriculture), four of which will be financed by PRR (Component 9 – Water Management), namely:

- Modernization of AH Alvor - Replacement of the adduction and distribution system in canal with duct (7 M€) Support for the installation and replacement of sprinklers and micro-sprinklers for drip irrigation systems (4 M€).
- Construction of the Funcho pipeline, with development from the Funcho dam to the filtration station (4.6 M€).

- Preparation of an action plan for Leakage Control, with associated technological equipment (sensors and remote management) (1.4 M€).

Re-qualification and modernization of existing irrigation perimeters, making them more efficient, and the expansion of irrigation, by making water available to rural building, through the retention of surface water resources, the implementation of efficient transport and distribution systems and appropriate irrigation methods, integrated with other infrastructures.

- **The majority of Portuguese watercourses do not originate in Portugal**

The Cooperation Convention[4] for the Protection and Sustainable Use of Water in the Luso-Spanish River Basins, known as the Albufeira Convention, regulates water coming from Spain and has been in force since January 17, 2000.

- **Efficient use of water and the PAC Strategic Plan (PEPAC)**

Intervention C.1.1.1.2 - Efficient use of water, aims to achieve direct environmental benefits and better management of the water resources, allowing savings in the irrigation water consumption and improving water quality through more rational management of fertilizers.
It contributes to the following PEPAC goals:

- 23.65% of UAA covered by supported water quality commitments (R.21)
- 12.13% of UAA covered by supported commitments to **improve nutrient management** (R.22)
  4.47% of UAA covered by supported commitments to **improve water balance** (R.23

- **Decree -Law No. 130/2012, of June 22 -** Article 41.º provides for protective measures against drought: In drought situations, water must be prioritized for public supply and then for vital activities in the agricultural and industrial sectors.

5. Can you share the most recent statistics linked to the right to food and the right to water? These include:

5.1.1 Total population, population facing malnutrition, and the most affected populations (women, Indigenous Peoples, afrodescendants).

[4] https://apambiente.pt/agua/convencao-de-albufeira-cooperacao-luso-espanhola

According to the National Programme for the Promotion of Healthy Diets 2022-2030 (PNPAS), [5]the different forms of malnutrition are inadequate eating habits and overweight (including obesity), which are among the main risk factors for the disease in Portugal.

The PNPAS states that older persons are the population group in which deterioration in nutritional status is most common. Recent studies show that, in Portugal, the prevalence of older persons at nutritional risk or with malnutrition varies between 15.8% and 38.7% [6]. It is also noteworthy that in the hospital context, nutritional risk is a common condition. According to data from the 2021 Hospital Nutrition Risk BI, 27.8% of hospitalized patients were at nutritional risk.

According to the latest Living Conditions and Income Survey (INE) [7], in 2022, 4.1% of the population residing in Portugal were in a situation of moderate and/or severe food insecurity, a value slightly lower than the value obtained for 2021 (4.3%) and for 2019 (4.7%).

In 2015-2016, data from the EpiDoC cohort [8]suggest that around 19.3% of households were in a situation of food insecurity (14.0% mild food insecurity, 3.5% moderate food insecurity and 1 .8% severe food insecurity). Food insecurity can result from economic difficulties in accessing food. The prevalence of food insecurity in lone parent huseholds families (26.4%) and in households with older persons (20.9%) was higher than the national prevalence (19.3%). There were regional differences in the prevalence of food insecurity, with the Autonomous Region of the Azores (29.0%), Madeira (28.8%) and the Algarve region (22.4%) showing the highest levels . (Graph 7). Respondents from food insecure (AI) households have a lower percentage of adherence to the Mediterranean diet considered high than those respondents from food secure (SA) households (5.9% vs 13.1%). "

5.1.2 Main staple foods and sources (locally produced) and their linkage to water issues.

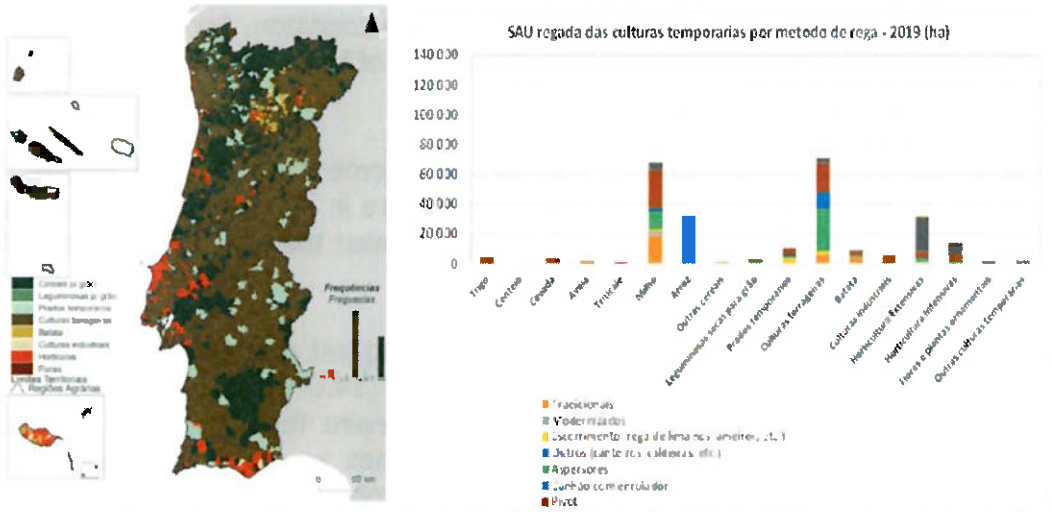
[5] https://nutrimento.pt/activeapp/wp-content/uploads/2022/10/PNPAS2022_2030_VF.pdf

[6] *Recent evidence also showed that 11.2% of elderly people had sarcopenia and 1.2% had pre-sarcopenia; 3 out of 4 individuals were frail (21.5%) or pre-frail (54.3%); less than 1/3 of the individuals had an adequate nutritional status of vitamin D (31%), with 40% deficient and 29% with inadequate nutritional status of this vitamin and 16.3% were hypohydrated or at risk of hypohydration.*

[7] https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_destaques&DESTAQUESdest_boui=594414636&DESTAQUESmodo=2

[8] https://alimentacaosaudavel.dgs.pt/activeapp2020/wp-content/uploads/2019/12/PNPAS_DesafiosEstrategias2018.pdf

According to DECO [9], the national food basket is made up of several essential products, namely meat (e.g. pork), fish (e.g. cod), eggs, fruit and vegetables (e.g.oranges, apples, tomatoes, potatos, protein crops), dairy products (e.g. milk, cheese, yoghurt), cereals (e.g. rice, pasta, bread) and fats (e.g. olive oil). Thus, 42% of national agricultural production is destined for the manufactures of processed food and 22% goes to the final consumer [10]. Of these products, some have national self-supply rate of more than 50%, namely meat (73.3% pork, 59.4% beef, 87.4% poultry meat), milk (111.4%), yoghurts (56.1%), cheese (62.6%), eggs (102.0%), paddy rice (88.0%), fruit (82.8%), olive oil (264.8%).

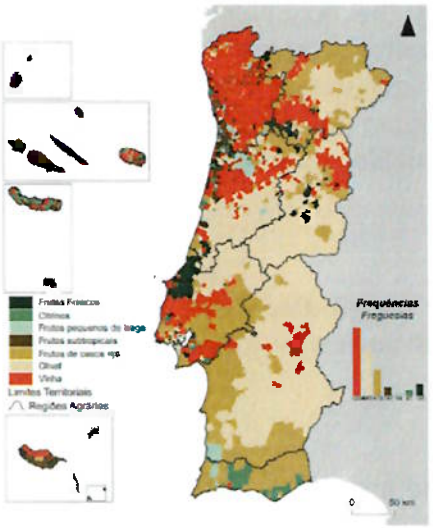


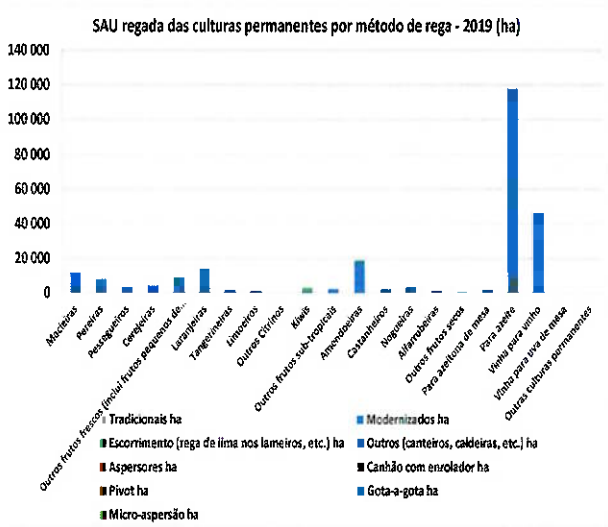
In 2019, 30.7% of the UAA for temporary crops was irrigated, around 843 thousand hectares. Irrigation was most relevant in the SAU for the following temporary crops: rice (100%), intensive (94.5%, mainly drip) and extensive horticulture (88.2%, mainly drip), corn (86.9%, with emphasis on pivot), potatoes (72.4%, mainly traditional) and industrial crops (55.2%, highlighting the pivot). The map shows the main temporary crops by municipality, highlighting vegetables and flowers, especially in the Algarve and the West region.

In 2019, **29.7% of the UAA of permanent crops was irrigated** , around 254 thousand hectares, with an increase in weight compared to 2009 (19.7%), highlighting the growth of irrigated olive groves (+53 thousand hectares), particularly in the Alqueva region. Irrigation is most important in the SAU of the following permanent crops (mainly drip irrigation): apple trees (82.6%), other fresh fruit including soft fruits (57.8%), orange trees (89.7%). The map shows

[9] https://www.deco.proteste.pt/familia-consumo/orcamento-familiar/noticias/precos-estao-aumentar-alimentos
[10]Source: QERU (INE)

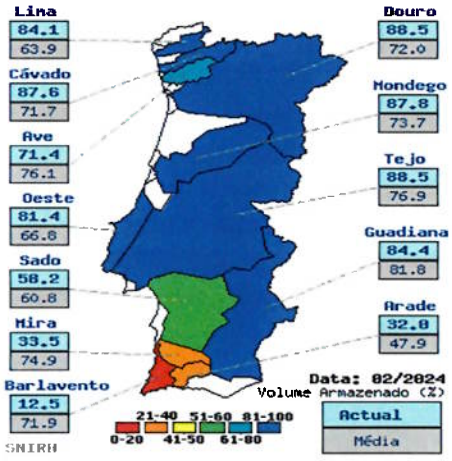
the main permanent crops by municipality, highlighting citrus fruit in the Algarve,





small soft fruit in Odemira and Aveiro and fresh fruit in the West region.

According to the PEPAC diagnosis within the scope of OE5 [11], despite the fact that in the last decade there has been an increase in the importance of more efficient irrigation systems (some with equipment for monitoring water in the soil) and there has been an increase in investment in collective irrigation systems (new and modernized), there is a **decreasing trend in the replacement of water levels** in some reservoirs located **south of the Tagus**, with a decrease in the capacity for intra and inter-annual regularization of water supply (on the map it is possible to see the low volume stored mainly in the Algarve region and the Alentejo coast). An increasing dependence on the availability of water for irrigation with a particular focus on crops in the spring-summer periFurthermore, there has been a worsening of the global state of **surface water masses** in the hydrographic regions RH3 (Douro), RH4 Vouga, Mondego and Lis), RH6 (Sado and Mira) and RH7 (Guadiana), and of groundwater **masses** in the RH4 hydrographic region (Vouga, Mondego and Lis), especially in regions where more intensive systems predominate (dairy basins and horticulture).



[11] Promote sustainable development and efficient management of natural resources, such as **water**, soil and air, particularly by reducing dependence on chemical substances

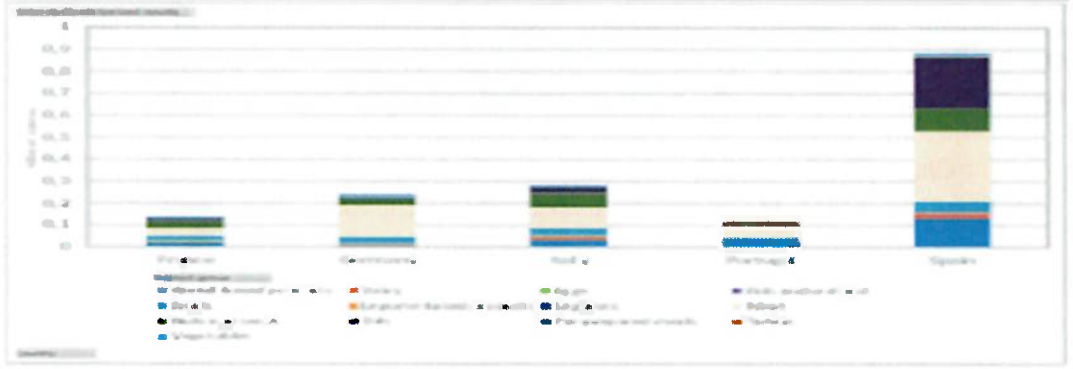
Two needs were identified in PEPAC: Improving the quality of surface and underground water, with priority in areas under greater pressure; improving the management of water resources in areas under water stress. The interventions selected include the efficient use of water, investments in agriculture to improve the environment and the management of sustainable irrigation, training and advice.

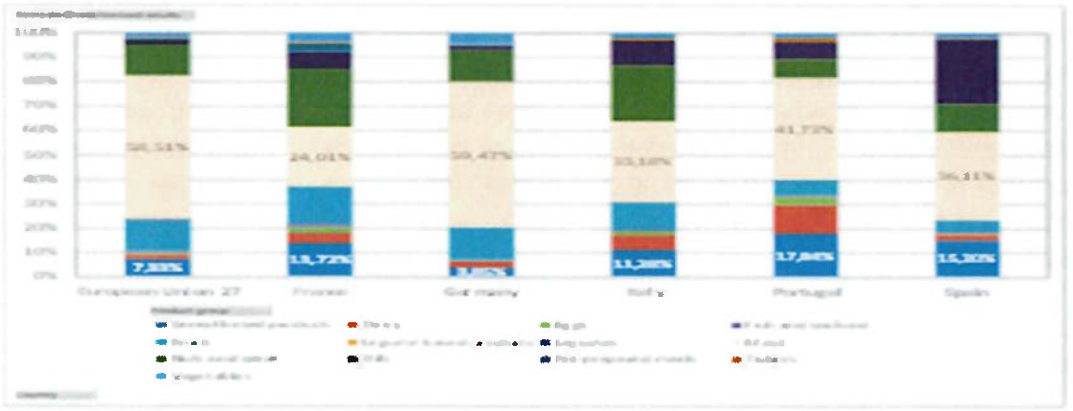
5.1.3 Statistics on the intersection of water and food, including primary food sources and the amount of water used along the food systems chain.

In Portugal, statistics on the water footprint of food are not available. However, the "*Consumption Footprint Platform* – EPLCA", developed by the JRC, provides statistical information at the EU27 level with estimates of the [1] domestic/internal footprint [2] and consumption footprint [3] by type of product consumed . In particular, the food consumption footprint is calculated in the basis of three indicators [4] the **consumption intensity per product** (sources of information: PRODCOM database, COMEXT database, FAOStat and EFSA), the **environmental pressure per product** (sources: *Commercial life cycle inventory databases, e.g. ecoinvent, Agrifootprint, and literature data)* weighted by **impact factors.** The impact category "water **use"** is measured in "m^3 water eq."

In 2021, the consumption type with the largest impact on water use is food (72.8%). The following food groups (excluding drinks) stand out: **meat** (41.7%), **cereals** (17.8%) and **dairy products** (11.7%). In the EU27, the distribution was different, with the emphasis on **meat** (58.5%), **dried fruit** (12.7%), **fresh fruit** (12.2%) and **cereals** (7.3%). Spain seems to stand out having the highest impact of *per capita consumption* of food on water use. However, it should be noted that water use by the sector depends, in particular, on the type of climate, the location and management of water resources (surface and underground water), the structure of agricultural and agri-food production, the importance of each type of production system and the pressure of internal and external demand for

food.





5.1.4 Statistics on challenges linked to food production and drinking water supply.

- **Monitoring of water reserves in BH/reservoirs** (SNIRH from APA and SIR from DGADR):
  https://apambiente.pt/agua/empreendimentos-de-fins-multiplos
  https://snirh.apambiente.pt/index.php?idMain=1&idItem=1.3
  https://sir.dgadr.gov.pt/reservas

- **ERSAR Statistics on Water and Waste Services in Portugal**
  https://www.ersar.pt/pt/setor/factos-e-numeros#k=#s=7#l=2070

6. How much of the national budget is invested in addressing issues of food security in the country? Are specific budget lines supporting technology transfer for water-related infrastructure, inputs, etc.?

PEPAC interventions - DOMAIN D.3 - SUSTAINABLE COLLECTIVE IRRIGATION, D.3.1 – "Development of sustainable irrigation" and D.3.2 – "Improvement of the sustainability of existing irrigation", aim the development of collective infrastructure related to sustainable irrigation, through the creation of new irrigation areas or the improvement of existing irrigation areas.

- 24.5 million (2025 – 2030) - Operations 341 342 343 PDR2020 (2014 – 2022 extended to 2024), in the National Irrigation Plan; 52.7 million from the OE

7. If there are trade-offs between the right to water and the right to food, can you please explain some of these trade-offs? If possible, please provide some examples.

It is difficult to establish a direct link between these trade-offs. Water scarcity problems in Portugal are manly due to climate change and decreasing rainfall, which can be exacerbated by intensive agricultural production and with non-native production. It is estimated that 75% of the volume of water abstracted in Portugal is used for agricultural and livestock production, which have a strong impact on the availability of water for other uses. Agricultural efficiency (water used per output) has increased significantly without an increase in the irrigated area, however, this ratio may increase through an increase in output, with more intensive practices which does not reflect into a reduction in water consumption, creating pressure on other uses with the effects of climate change.

The EU Common Agricultural Policy (CAP) aims to ensure food security, through access to sufficient and safe food. It therefore contributes to the development of an environmentally sustainable agriculture by granting of support for rural development within the framework of environmental, including climate and management commitments, which includes the efficient use of water, Ordinance No. 54-C/2023, of 27 February.

The National Programme for the Efficient Use of Water — Bases and Guidelines (PNUEA) aims to promote the efficient use of water in the urban, agricultural and industrial sectors (RCM 113 /2005, 30 June).

8. Is there competition or complementarity between the demands for water to produce food and for supply? Could you explain them? Are there laws to regulate them? These trade-offs include irrigation vs drinking water, fishing vs drinking water, live-stock vs drinking water, and processing of foods by industries vs drinking water. The trade-offs also can include issues on volume, access (rights, price, among others), and water quality/pollution. Provide examples and actions taken by the State.

In areas of water scarcity there is competition between uses because there is not enough water for all uses, including for ecosystems. The Algarve is currently experiencing a period of drought with the need to reduce water consumption for different uses. Council of Minister's Resolution no. 26-A/2024, of 20th of February (Resolution of the Council of Ministers No.26-A/2024, of 20 February) has established a set of measures to address water scarcity during this period which includes measures for the different sectors to ensure an efficient and proportionate use of water.

- Qualification of water according to its various uses, of which agriculture is one, Decree-Law No. 236/98, of 1 August, as amended.
- Competition for water for food production and supply, Resolution of the Council of Ministers no. 26-A/2024, of 20 February.

9. Are there transfers of water rights in the market, specifically between agricultural uses and drinking water supply? If yes, are they regulated by the State?

The legal competence in this matter lies with the licensing authority APA - Portuguese Environment Agency. The license for the use of water resources for agricultural purposes, which is transferable from one holder to another in the same area and for the same use.

10. In areas where there is any activity linked to industrial agriculture (crop production, livestock, fishing, processing of foods, or any other industry linked to agriculture), are there any regulations, policies, or mechanisms in place that:

10.1. Regulate the amount of water these industries can use?

- Yes. The titles for the use of water resources (TURH) under the responsibility of the APA regulate the amount of water to be used for agricultural, livestock, fishing and agro-industrial activities.

https://apambiente.pt/agua/gestao-dos-turh

- The Legal Regime of Environmental Impact Assessment (RJAIA) of public and private projects likely to have significant effects on the environment, Decree-Law No.151-B/2013, of 31 October according to which restrictions to the quantities of water may be imposed.

For agricultural activities:
- In some irrigation perimeters with more modern design and management (Alqueva for example) the amount of water available per hectare is regulated.

10.3. Is an effective regulation in place to control diffuse pollution from irrigation and contamination due to slurry discharge from intensive livestock farming?

- **Scheme applicable for the management of livestock effluents** Ordinance Nº. 79/2022 of 3 February, regulates the management of livestock effluents.
- **Control of pollution from diffuse sources** (APA Competence), in accordance with the provisions set out in Directive 2000/60/EC of the European Parliament and of the Council, which establishes the structure of community action in the field of water policy (Law No. 58/2005 , of 29 December).
- Storage conditions for Fertilizers.
- Discharge of dangerous substances into groundwater.
- Protection zones for groundwater abstractions for public supply – compliance with restrictions (Water Law).

11. Are there any specific policies or guidelines on using wastewater and disposal in agriculture and food and health safety issues? For example, when crop fields are irrigated with sewage or aquifers or bodies of water at risk of contamination are used for cooking, among others. Can you provide any example of where this situation might be taking place?

- **Decree-Law No. 119/2019, of 21August**, which establishes the legal regime for the production of water for reuse, obtained from the treatment of waste water, as well as its use, in order to promote its correct use and to avoid harmful effects on health and the environment. establishes the rules for the use of reclaimed water and the types of crops allowed for each level of quality of reclaimed water. Both the supplier and the user must have a license for the use of reclaimed water and the conditions of the licence define

the permitted uses that are allowed, depending on the risk assessment carried out in a case-by-case methodology.

- **Order No. 626/2000, of 6 June**, which determines the procedures for the licensing of operations for the irrigation of agricultural land with waste water, in particular Russian water from olive oil mills, and the restrictions applicable.
- **Order No. 3123/2023 of 2023-03-08** - establishes the working group whose mission is to prepare a proposal to revise the Joint Order No. take for the licensing of operations for irrigation of agricultural land with wastewater, namely Russian water from olive oil mills, as well as its constraints.

12. What mechanisms are set in place to prevent, mitigate or restore the potential damages caused by the violations of the right to water and right to food?
For example, when implementing a food security project, what is the process of consultation or formulation that can prevent damages or when an already implemented project, what mechanisms can be followed to restore or mitigate potential damages? E.g., using chemicals pollutes water bodies and affects the health of fisheries used for human consumption.

- the Legal Framework for the Environmental Impact Assessment (AIA) of public and private projects likely to have significant effects on the environment, Decree-Law No. 151-B/2013, of 31 December October;
- the legal regime of the National Agricultural Reserve, approved in Decree-Law No. 73/2009, of 31 March. https://apambiente.pt/agua/gestao-dos-turh

13. Has the state transferred or is in the process of transferring water and/or land rights to large agricultural or livestock production companies to increase food production? Can you describe this process? Are there laws that guarantee customary rights to land and water to rural or indigenous communities that are not formally registered?

TURH Management: https://apambiente.pt/agua/gestao-dos-turh

14. Are there any good examples of practices linked to food systems that help ensure people's right to food and water? Please provide examples and details.
Are these excellent practices part of any national or regional program or supported by policies and the government?

- **National Food and Nutritional Security Strategy (ENSANP) -** Council of Ministers Resolution No. 132/2021, of 13 September, establishes the National Strategy for Food and Nutritional Security (ENSANP). Adopted in 2021, within the framework of the National Food and Nutrition Security Council (CONSANP), it is composed of 4 axes: 1- Integration of policies and governance; 2 – Vulnerable groups, health and nutrition; 3 – Good functioning of the food chain; 4 – Communication and measures and indicators.

  ENSANP is aligned with the 2030 Agenda for Sustainable Development (UN); "European strategy from Farm to Fork"; "Future Land" – Innovation Agenda for Agriculture 2020-2030 Integrated Strategy for the Promotion of Healthy Diets; National Strategy to Combat Food Waste; National Strategy for the Sea 2021-2030.

- **Examples of good practices:**

- "Regenerative Pastures" project, which aims to experiment and test innovative regenerative agriculture techniques (in terms of soil mobilization and pasture management - moving towards a holistic management system).
- Precision agriculture - This envolves the use of techniques, equipment and *software* to collect and analyse land data, in order to optimise production processes and access to information to help make decisions, on fertiliser application, water use and the avoidance of resource wastage. It will also enable the identification of mechanical and human errors that could put food safety at risk.
- Support from the CAP, in particular that established in the field of sustainability of the Axis A, eco-regimes Ordinance nº 54-E/2023, of 27 February, as one of the objectives that it advocates is food security.
- Within the framework of this support, we have as an example: Saving water in corn cultivation by covering the soil", "aQuacer".
- The adoption of practices in the Integrated Production Mode in agricultural crops, in accordance with Decree-Law No. 256/2009, of 24 September, and related regulations on "Integrated Production".