Compte-rendu Rendez-Vous BeMed Community 22.02.2023

Theme: Plastic and agriculture, example of Morocco and Turkey

The essentials to continue the conversation => link to download all the presentations *(expires on 06/03)*

- Here are Begoña's and Agrotech's contacts if you want to continue the conversation on the topics discussed
  - Begoña : aliotxa@hotmail.com
  - Agrotech : contact@agrotech.ma

- And the documents sent during the webinar :
  - EIA, "Ocean - Fields of plastics : The growing problem of agriplastics"
  - UNEP, "Plastics in agriculture - an environmental challenge"
  - Podcast : Microplastic Research Group, Why microplastics are dangerous?
  - Podcast : Podtail Ep.6: Plastic Traces in the Soil – Plastisphere: A podcast on plastic pollution in the environment

Presentation of Mrs Begoña Rodriguez Rueda :
Turkish context, sources and impacts of plastic pollution on agriculture

Link to the YouTube video on the importance of soil:
https://www.youtube.com/watch?v=OiLITHMVcRw

One of the factors that inspired Begoña to take an interest in soil was the fact that today's food is of lower quality.

The types of plastic used in agriculture are diverse: plastic containers used for insecticides and pesticides, plastic ropes, land cultivated with tarpaulins, crates for transporting plants, irrigation pipes, etc.
To illustrate the high consumption of plastics in this sector in Turkey, irrigation pipes are considered very cheap and are sometimes used for single use.

Some of the recycled plastics are supposed to be recyclable, but in fact are not. There was an initiative to sort plastics but it did not take off. A European initiative was implemented, but no information on the results (*You have more information? Please don't hesitate to share by contacting crenouard@beyondplasticmed.org*).

Often in Turkey once these plastics are used they are not recycled and end up being burned, buried, left near irrigation sources, or exposed to UV light on the ground.
This waste then decomposes into microplastics either by mechanical action when the soil is plowed, or by slow decomposition due to atmospheric conditions (temperature, UV exposure, humidity in the

air, weather conditions...), and these microplastics then contaminate the soil, water and the food chain.

Another important source of plastic pollution is **sewage sludge from wastewater treatment**. This sludge is used to fertilizes the soil. Microplastics are found in this sludge. Their presence is due to the plastic thrown in the toilet, but also by certain products such as toothpaste, which may contain microplastics.

Microplastics are not visible and can be ingested by animals (chickens, worms). Worms can suffer from plastic ingestion as it impacts on their ability to ingest nutrients, and therefore their ability to regenerate the soil. Plastic also affects their endocrine system, and therefore their fertility.

In addition, the presence of plastics has an impact on agricultural practices since, for example, the presence of tarpaulins in the fields **prevents the natural irrigation of the soil**. Similarly, fungi are vectors of nutrients for plants, and the presence of plastic **impacts the exchange of nutrients and carbon between plants and fungi**. The presence of plastics and microplastics in the soil is therefore not without impact on agricultural activity.

[Like worms, humans are also impacted by microplastic pollution as they can be found in blood, amniotic fluid, etc.]

Presentation by Ms Khadija Demnati for Agrotech:
Moroccan context, implementation of an agricultural waste management system and training of farmers

Agrotech works on various issues related to agriculture, including water saving, environmental protection and sustainable development, and the development of regional products.

The Souss-Massa region is the leading producer of early fruit and citrus fruits. A large part of this production is destined for export (more than 65% of total national exports).

This is not without negative impacts, as a lot of waste is produced, including plastic waste. The degradation of agricultural plastics leads to water and air pollution, fire and health risks, and can lead to the degradation of working conditions.

Agricultural waste is collected, but it is not always separated according to the type of plastic or its origin. Shredding processes exist, however they consume considerable amounts of water for shredding and washing the agricultural plastic waste (and as a consequence large amounts of water/plastic mix are discharged during this process around 500m cubic day).

In 2019, 55,000 tons of agricultural plastic waste were produced in the region. The trend is towards the intensification of agriculture in this Moroccan region. This waste, whether organic or inorganic, is seen as a high potential source of value.

There are 2 formal and informal plastic collection sectors. Today, the majority of waste is collected by informal collectors (77.50%, compared to 22.50% for formal collectors). However, a large part of the informal collection is subsequently exported to other regions, and is not recovered. On the other hand, the waste collected through the formal channel is sent for recycling and 3.90% becomes a by-product.

Agrotech is working on the structuring of the sector by carrying out a study on the state of play of agricultural waste (organic and non-organic). In parallel, the organization is working on the creation of

a WAS recycling platform to bring together the various operators in the sector: around 30 recycling units to bring together on a single site and maximize recycling while limiting resources consumption and waste creation.

Agrotech is developing best practices guides, which can be shared with the BeMed network.

Agrotech would like to see the implementation of Extended Producer Responsibility, a relevant mechanism to improve waste management (mechanism implemented in France).

Temps de questions / réponses

The time for exchanges between the members present enabled the discussion to be deepened. The paradoxes of Turkish agriculture were addressed: a major exporter of agriculture and recycling equipment, but little progress on waste management.

Similarly, it is vital to quickly reinvent plastic-free agriculture, as it used to exist. One of the major difficulties identified is that there are no harmonized regulations, only voluntary and scattered movements. The future international treaty on plastics could be an interesting tool, but it is not clear that agriculture will be included.

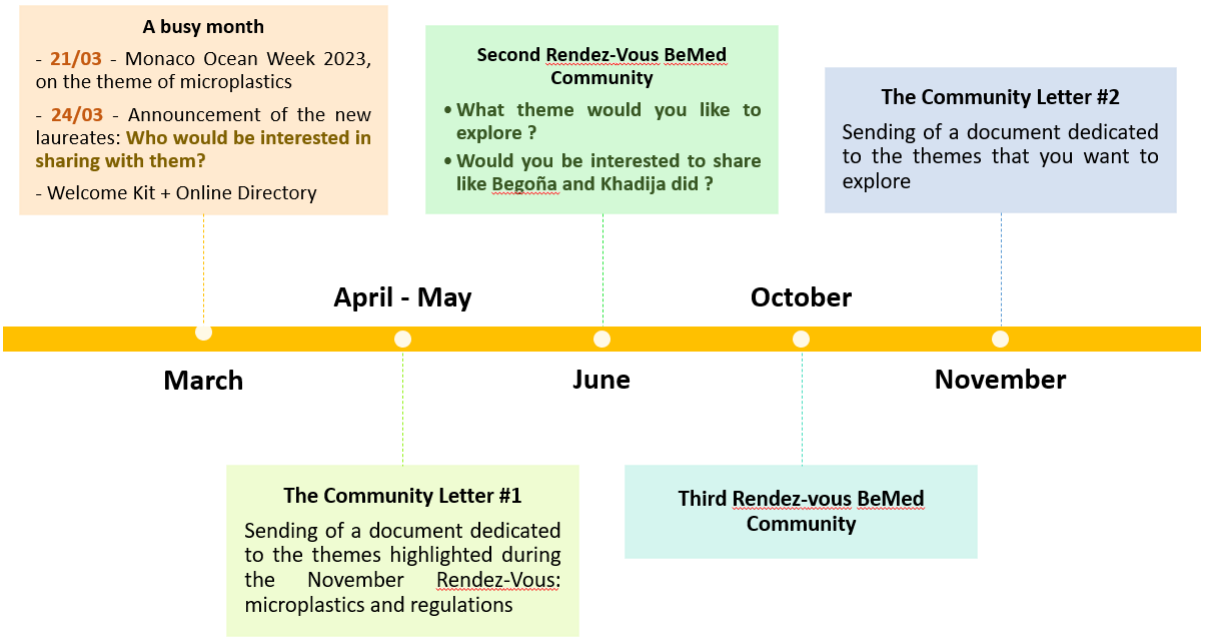
The Community Compass

During discussions, it is sometimes possible to lose your bearings. What better way than with a compass? The Community Compass was born with this in mind. Its objective is to ensure that we go in the right direction during our discussions and projects, and thus that this Community allows the strengthening of each of its members and the protection of the Mediterranean.

Any comments or changes you would like to make? Do not hesitate to contact us :)

Where do we go now ? A roadmap

2023 is a rich year as the activities of the Community are being set up: between the Community Rendez-Vous, which are meant to be times of exchange and sharing, and the sending of the first Community letters, dedicated to the sharing of information (on themes, new members, interesting resources, etc.)



Thank you again for your participation !! And See you in June 😉