



Training Workshop
Wastewater and Biosolids Treatment Using Constructed Wetlands
and Drying Beds
28th March - 1st April 2022, Tunis, Tunisia

Usage of constructed wetland at NGO Sidi Amor
Lessons learned from a tunisian case study
Taleb Ben Miled, GDA Sidi Amor – Ariana -Tunis

Le GDA Sidi Amor, partenaire associé au projet TRESOR <https://lnkd.in/db5biG6Q>, a participé activement à l'atelier de formation qui s'est déroulé en présentiel et à distance du 28 Mars au 1^{er} Avril et dont ci-joint programme. Une composante « formation de terrain » s'est déroulée au GDA Sidi Amor. En partenariat avec plusieurs institutions scientifiques nationales et internationales et experts tels que (Hamadi Kallali, Ahmed Ghrabi, Olfa Mahjoub, Tunisia, Andreas Angelakis, Greece, Jan Vymazal, Czech Republic, Jörg Felmeden, Germany, Fabio Masi, Italy, Pascal Molle, INRAE, France...)



Ouverture officielle du Workshop et Introduction par Olfa Mahjoub) et MM.Ahmed Ghrabi, CERTE,Mondher Ben Salem, INRAT, Zouhaier Nasr, INRGREF etTaieb Ben Miled, GDA Sidi Amor



Formation de terrain au site du GDA Sidi Amor. Vendredi 1^{er} Avril 2022



Explications par Hayet Cherif (CERTE) du procédé de filtration et dessalement apporté par le Projet tuniso-allemand (CERTE-FiW) installé au GDA Sidi Amor, en aval des lagunes plantes à macrophytes.



Visite de l'unité d'aquaponie utilisant les EUT post-filtrées. Expérimentations et innovations agronomiques diverses. Partenariat entre Terra Urbana (Germany) et Arts et Jardins (Start up issue du GDA Sidi Amor) : entreprises spécialisées dans le paysagisme (landscape architecture)



Training Workshop

Wastewater and Sewage sludge Treatment Using Constructed Wetlands and Planted Sludge Drying Beds

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Programme

28 March 2022	
Plenary Sessions (free access online) Hotel Bélvédère, Tunis	
Session 1 : Opening session Moderators: Olfa Mahjoub and Taieb Ben Miled	
09:00 – 09:15	Welcome Speeches Zouhaier Nasr, INRGREF Ahmed Ghrabi, CERTE Mondher Ben Salem, INRAT Taieb Ben Miled, GDA Sidi Amor Fethi Ben Mimoun, Min planification Salwa Chatti, Min planification Faicel Sahraoui, Antenne STC
09:15 – 09:30	Ice breaking session: getting to know each other's
09:30 – 09:40	Quizz (Mentimeter)
09:40 – 10:15	TRESOR Project introduction, training unfolding, and housekeeping Olfa Mahjoub, Tunisia
10:15 – 10:30	Cyber break and networking
Session 2: Introduction to constructed wetlands Moderators: Hamadi Kallali and Hatem Zgallai	
10:30 – 11:30	Wastewater management in small communities Andreas Angelakis, Greece
11:30 – 12 :30	Advantages and disadvantages of constructed Wetlands as compared to conventional treatment system Jan Vymazal, Czech Republic
12:30 – 14:00	Cyber break and networking
Session 3: Uses of Constructed wetlands Moderators: Feliciana Licciardello and Zouhaier Rached	
14:00 – 15:00	Nature-based solutions for wastewater treatment and reuse: experiences in Italy Giuseppe Cirelli, Italy
15:00 – 16:00	Constructed wetlands and runoff management in Germany Jörg Felmeden, Germany
16:00 – 17:00	Constructed wetland for sanitation in rural areas in Tunisia Hamadi Kallali, Tunisia
17:00	Wrap up of the day
29 March 2022	
Session 4 : Constructed wetlands for wastewater treatment: conventional approaches Moderators: Thameur Chaibi and Mohamed Ali Wahab	
Closed sessions (only by registration)	
09:00 – 10:00	Plants in constructed wetlands – function and selection Jan Vymazal, Czech Republic
10 :00 – 11 :00	Constructed wetlands in hot and arid countries: emphasis on the socio-environmental settings Sarah Dan Haring, Kenya
11:00 – 12:30	Cyber break and networking
Session 5 : Subsurface constructed wetlands use for wastewater treatment: novel variants and innovations Moderators: Abdellaziz Zairi and Giuseppe Cirelli	
12:30 – 13:30	New types of constructed wetlands: concept and types Fabio Masi, Italy
13:30 – 14:30	Combination of CWs with other treatment systems: case of the APOC system Kostantinos Plakas, Greece
14:30 – 15:30	Usage of constructed wetland at NGO Sidi Amor: lessons learned from a Tunisian case study Taieb Ben Miled, Tunisia
15:30	Wrap up of the day

30 March 2022	
Session 6: I design my constructed wetland for the wastewater treatment Moderators: Giuseppe Cirelli and Hamadi Kallali	
Closed sessions (only by registration)	
09:00 – 10:00	Constructed wetlands for wastewater treatment: from theory to practice Pascal Molle, France
10:00 – 11:00	Modelling wetlands using the HYDRUS Wetland model Günter Langergraber, Austria
11:00 – 12:00	Sizing and performance of constructed wetlands: applied example Fabio Masi, Italy
12:00 – 13:00	Cyber break and networking
Session 7: I design my planted filters for wastewater treatment Moderators: Fabio Masi and Konstantinos Plakas	
13:00 – 14:00	Working groups session
14:00 – 15:00	Presentation of the results
15:00 – 15:30	Cyber break and networking
15:30-16:30	Connecting TRESOR and on-going projects and open discussion (30 min)
16:30	Wrap up of the day
31 March 2022	
Session 8 : Introduction to planted sludge drying beds Moderators: Hamadi Kallali and Olfa Mahjoub	
Closed sessions (only by registration)	
09:00 – 10:00	Planted sludge drying beds: Concept, design, and operation Pascal Molle, INRAE, France
10:00 – 11:00	Sizing and performance of drying beds for sludge: from theory to practice Fabio Masi, Italy
11:00 – 12:00	Working groups session
12:00 – 13:30	Cyber break and networking
Session 9: I design my drying beds for sludge Moderators: Fabio Masi and Pascal Molle	
13:30 – 14:30	Presentation of the results
14:30 – 15:00	Closing Quizz (Mentimeter)
15:00 – 15:30	Wrap up and instructions for the field visit
1st April 2022	
Field Trip	
08:00 Departure from INRGREF to Bent Saidane and Jougar	
09:30-12:00 Guided tour on constructed wetland	
12:00 Back to Tunis	
13:30-15:00 Visit of the constructed wetland of GDA Sidi Amor	
16:00 Back to Tunis	