

MOROCCO

Water and Energy

«DFSP»

Solutions

to

Drought, Floods, Salinity back to Rivers, Plastic in the Sea

TGVH case study for Qued Massa River

Intellectual property of TGVH Gabriele Puccetti – all rights reserved 2022-2023-2024



Project details

"DFSP" MOROCCO (Drought, Floods, Salinity back to rivers, Plastic) - positive yearly balance >6 bln Euro

		average		
	#	length	Cost x KM	Investment
Effluents	8.000	3,0 Km	630.000 €	1.890.000 €
(average #80 per River)		wide	€ 20/CM all incl.	Effluents
Estimated extra water disseminated in Land and aquifers, not wasted in Sea		3,5 meters		Total investment
30.000.000.000 CBM per year		depth		15.120.000.000 €
on average rain in Morocco		3,0 meters		
155.000.000.000 CBM per year		Total CM	Water valorisation 0,10/CM	3.000.000.000 €
		10,5	savings indamages by Drought and floods	3.000.000.000 €
Water basin	8.000	area		
		50.000 sqm		
		3 meters		
Tot. Storage CM	1.200.000.000	150.000 MC storage	Cost x Unit	Water basins
W.saving by ESFPV CM	480.000.000	150.000 MC removed	3.000.000 €	Total investment
W.saving 30 Years CM	14.400.000.000		€ 20/CM all incl.	24.000.000.000 €
Dams	200	100 Rivers	average	Dams
		80	Total/River	Total investment
			400.000 €	160.000.000 €
			800.000 €	
FPV by ESFPV	8.000	8 MWp	Cost x MW	Investment
Total GWh	96.000	12 GWh	460.000 €	3.680.000 €
Morocco Energy needs on 2045		71,20 € PPA/MWh	110.000 €	ESFPV made in Morocco
GWh	120.000	Revenue by PPA	350.000 €	other FPV components
(Including Hydrogen)		854.400 € Early/unit		FPV
		6.835.200.000 € Total Yearly		Total investment
				29.440.000.000 €
20,00 € LCOE		48,70 € PPA share to investment payback		
22,50 € PPA10% to investors		4.675.200.000 € Yearly to investment payback		Total investments
				68.720.000.000 €
Workunits	48.200		Equity 10% int. Rate	37.853.749.604 €
			Debt 3% int. Rate	78.928.865.956 €
Cost Zero	116.880.000.000 €	<<< 25 years total >>>		116.782.615.561 €

Intellectual property of TGVH Gabriele Puccetti – all rights reserved 2022-2023-2024

Results at zero cost for Morocco
no incentives – no subsidies
direct positive result >6 bln Euro per Year

Timing to full deploy 15-18 Years - to block most of damages from Climate change

Estimated numbers and results for Morocco

100 Rivers, 8.000 Effluents (average #80 x River), 8.000 Water basins, 200 Dams
>30 billion Water CBM per Year from Rivers to Land and storage saved/no more in the Sea
>480 mln CBM yearly saved by ESFPV (>14 billion CBM in 30 Years ESFPV life)
>64 GWp
>96 TWh (average 30 Years)
>48.000 Workers for decades (set up + maintenance)
>116 billion Euro direct GDP (expected double with undirect GDP)
>3 billion saved per year (damages by Drought and Floods)

Available to a demo plant/test in a river with: 1 Effluent, one Water basin, one ESFPV plant and two dams

TGVH “The Goat Vision Holding”

Gabriele Puccetti

+39 392 2730361 (Italy/Whatsapp)

+960 7486476 (Maldives)

tgp@thegoatproject.bio

TGVH ENERGY MALDIVES

TGP The Goat Project

SCH Static Cruise Hotel

ESFPV Floating PV

E-NAUTIC