1 **Table S1 Operating conditions of GC-MS of organic pesticides**

	Temperature settings(°C)				Oven temp program
	Column	Injector	Ion source	interface	
Organophosphorus Pesticides(OPPs)	**40**	**280**	**260**	**280**	initially at 40°C , increased to 140°C at a rate of 20°C/min, further linearly increased to 200°C (10°C/min), and continued to rise at a rate of 5°C/min while stayed at 270°C for 5 min
Pyrethroid Pesticides(PPs)	**80**	**280**	**200**	**280**	Initial oven temperature was 80°C, increased to 160°C at a rate of 20°C/min (held for 1 min), and ramped to 280°C at a rate of 20°C/min (held for 9 min)

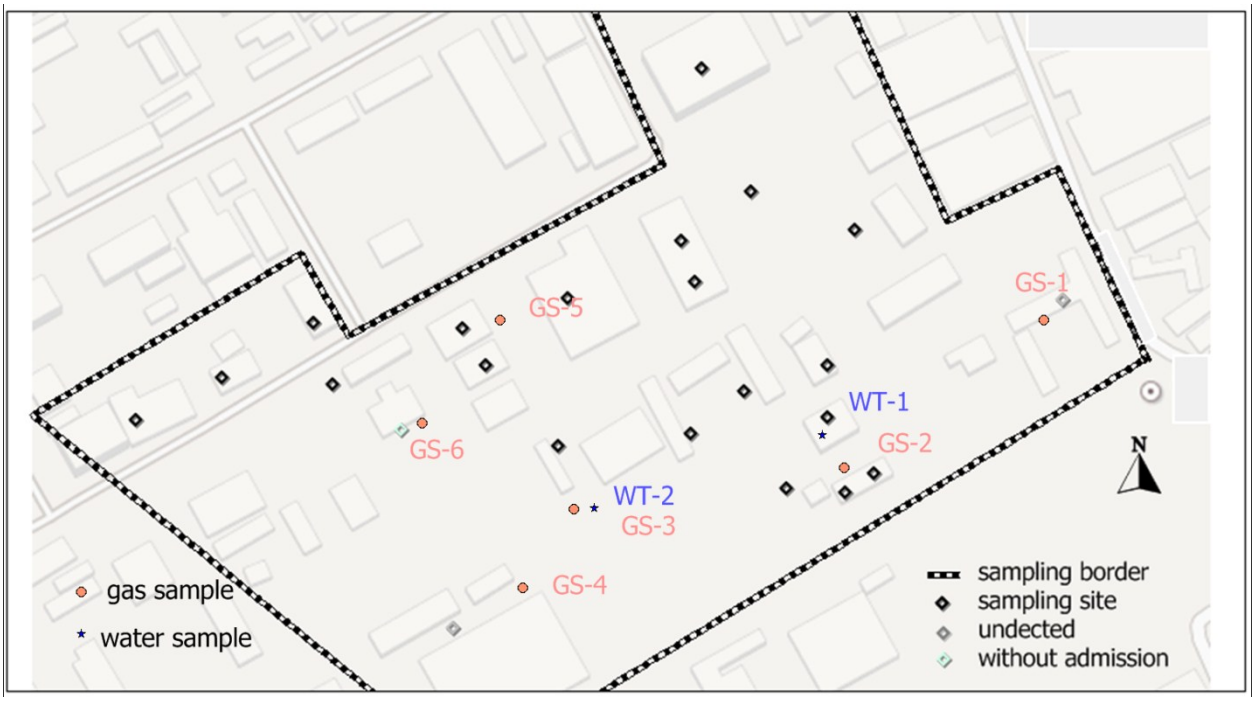

Fig. S1 Sampling map including gaseous and water sample

Table S2 Concentration of phorate in gaseous and water samples

Samples	Gas sample (μg/m^3)						Water sample (mg/L)	
	GS-1	**GS-2**	**GS-3**	**GS-4**	**GS-5**	**GS-6**	**WT-1**	**WT-2**
phorate	UD	1.07	0.25	UD	0.41	3.65	UD	2.57±0.74

UD-undetected

Table S3 Existence of organophosphours pesticide and its intermediate without standards

Samples	Organophosphorus pesticide			Intermediate		
	Cyanthoate	O,O-Diethyl-O-penyl thiophosphate	Oxydisulfoton	Diethyl trisulphide	DV ethyl chrysanthemate	Methyl chrysanthemate
WS-1				*		
WS-2				*		
WS-3	*		*	*	*	*
WS-4					*	*
BK-1		*		*	*	
BK-2		*	*	*	*	
BK-3				*		
BK-4				*		
BK-5	*			*		
BK-6	*			*		
BK-7	*	*		*	*	
BK-8				*		
WD-1				*		
DS-1				*		
DS-2					*	*
DS-3				*		
DS-4	*			*		
DS-5				*		

Samples	Organophosphorus pesticide			Intermediate		
	Cyanthoate	O,O-Diethyl-O-penyl thiophosphate	Oxydisulfoton	Diethyl trisulphide	DV ethyl chrysanthemate	Methyl chrysanthemate
DS-6	*			*	*	
GT-1	*	*		*		

*detected

Table S4 Pearson correlations (r) and the associated P values for organic pollutants
(Significant at P ≤ 0.05 was shown in bold and significant at P ≤ 0.01 was shown in Bold Italic)

	O,O,O-triethylphosphorothioate	O,O'-diethyl dithiophosphate	Phorate	Parathion	Terbufos	Ethion	Chlorpyrifos	Sulfotepp	Cholrmephos	Phorate sulfone
O,O'-diethyl dithiophosphate	**0.535** 0.015									
Phorate	0.106 0.658	0.326 0.161								
Parathion	-0.096 0.686	0.064 0.789	-0.078 0.745							
Terbufos	***0.928*** 0.000	**0.447** 0.048	-0.031 0.896	0.155 0.513						
Ethion	0.048 0.840	0.399 0.081	***0.793*** 0.000	-0.089 0.709	0.049 0.839					
Chlorpyrifos	0.046 0.846	0.043 0.858	**0.457** 0.043	-0.083 0.729	-0.119 0.618	0.243 0.302				
Sulfotepp	***0.627*** 0.003	***0.642*** 0.002	**0.472** 0.036	0.370 0.108	***0.566*** 0.009	0.218 0.355	0.220 0.351			
Cholrmephos	0.019 0.938	0.354 0.125	**0.536** 0.015	-0.057 0.812	0.117 0.623	***0.925*** 0.000	-0.076 0.751	0.043 0.856		
Phorate sulfone	0.021 0.930	0.354 0.126	***0.585*** 0.007	-0.068 0.776	0.103 0.664	***0.950*** 0.000	0.014 0.953	0.056 0.816	***0.995*** 0.000	

Cypermethrin	-0.094 0.693	-0.134 0.574	0.000 0.999	-0.070 0.770	-0.105 0.660	-0.051 0.832	0.060 0.801	-0.100 0.676	-0.066 0.782	-0.032 0.892

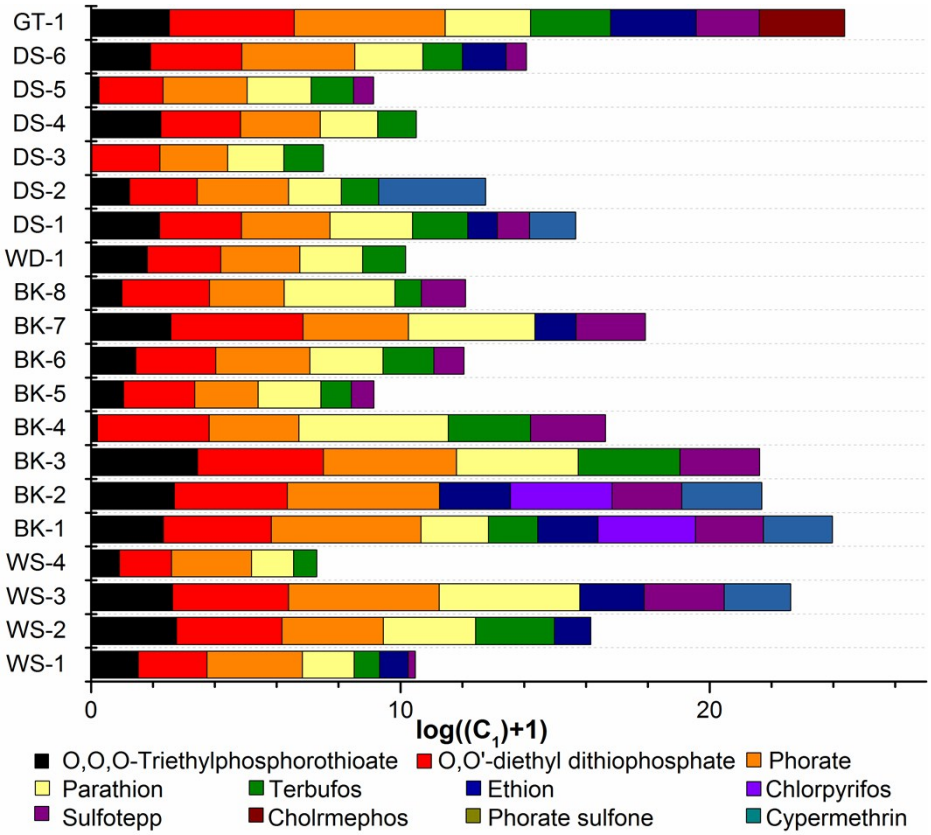

Fig S2. Log-transformed concentration of organic pollutants in different samples