

RC Assessment Raw Data: Rotterdam

Clusters	No.	Indicators	Rotterdam Climate Change Adaptation 2013		Rotterdam Resilience Strategy 2016 (RC100)		Rotterdam RC Achievements	
			Score	Reference	Score	Reference	Score	Reference
Public Participation	1	Educate developers and the public about hazard mitigation	2	(p26, 29)	2	(p36-37, 134-135, 141)	3	a
	2	Encourage community involvement and citizen participation	3	(p7, 26-29, 88)	3	(p54-55, 114-115, 118-119, 162-163, 176-177, 184-185)	3	[1], b
	3	Learn collectively from past urban hazards	2	(p14-17, 26)				
Social Service	4	Enforce security and laws to reduce crimes			3	(p68-82)		
	5	Set ensured human security for providing basic living needs						
	6	Assist vulnerable neighborhoods and populations (increase social equity)	1	(p23, 95)			1	c
	7	Enhance robust public health systems and emergency medical care	1	(p82, 95)	2	(p32-33, 50-53)		
Robust Economics	8	Diversify livelihoods that can mitigate business interruption impacts			2	(p44-45, 180-181)	1	d
	9	Adopt sustainable economic initiatives	3	(p27, 30-31)	3	(p58-69, 80-81, 152-153)		
	10	Use/facilitate alternative energy (solar, wind, etc. to reduce greenhouse gas emission)			3	(p58-69, 148-149, 152-153)	3	e, f
Hazard Management	11	Identify, monitor, and assess hazards and vulnerability	3	(p20-27)	2	(p174-175)	2	g
	12	Build effective emergency response services/initiatives	1	(p39)	1	(p167)		
	13	Enhance building hazard resistance by appropriate construction regulations	3	(p30-31, 68-71, 80-81, 94, 133)	2	(p96-97)	2	h
	14	Land use and planning management for natural hazard prone areas					1	i
Institutional Optimization	15	Increase capacity of governmental institutions by wide collaboration	3	(p3, 7, 26, 71, 77, 90, 132-133)	3	(p54-55, 134-135, 183)	3	j
	16	Adopt a flexible planning system and adaptive design process	2	(p77)	1	(p103, 108-109, 173)		
	17	Employ agile city management for uncertainty and challenges	3	(p76-77, 94-95)	2	(p42-43, 90-93, 108-109, 112-121, 183)	1	k
	18	Effective coordination with other government bodies	3	(p3, 7, 26, 71, 77, 90, 134-136)	3	(p112-121)	3	[1], l
Physical/Engineering	19	Set robust protective infrastructure with regular maintenance	3	(p32-60), general	3	(p58-69, 98-111)	2	[2], m
	20	Build/optimize distributed or decentralized hazard mitigation system					1	n

	21	Enhance reliable ICT infrastructure (communication network)	2	(p26, 69)	3	(p70-85, 186)	3	o
	22	Optimize sustainable urban form	3	(p32-60), general	2	(p96-97, 192)		
	23	Provide diverse, effective, affordable, sustainable transport						
Natural Enhancement	24	Enhance effectively, conserve, manage, and protect ecosystems			3	(p86-97)	1	p
	25	Optimize urban blue-green ecological networks within compact cities	3	(p32-60), general	3	(p86-97)		
	26	Maintain diversity in biological systems	1	(p31, 92, 111)	1	(p14)	2	q

* **Scoring Criteria:** 3 = Well elaborated /practiced; 2 = Partially included/practiced; 1 = Mentioned/practiced to a limited extent; 0 = Not mentioned or practiced at all.

Motivation and Related Plans before RC Plan

As a city lied in a major delta area and exposed to sea level rise, Rotterdam is forced to formulate policy and projects to copy with climate change. In 2001, the first WaterPlan was issued. Later in 2007, Rotterdam Climate Initiative (RCI) was founded in the purpose of working towards a climate-proof city while creating maximum economic spin-off in the process. Based on the second Water Plan, the Rotterdam city government initiated the Rotterdam Climate Proof program (RCP). In the same year, the city council approved the Rotterdam Climate Change Adaptation Strategy which ensures that in the future, topics such as water safety, accessibility, and the robustness of the city are considered in the earliest phases of each (spatial) development project.

References:

1. Huck, A.; Monstadt, J.; Driessen, P. Mainstreaming resilience in urban policy making? Insights from Christchurch and Rotterdam. *Geoforum* **2020**, *117*, 194-205, doi:10.1016/j.geoforum.2020.10.001.
2. Ilgen, S.; Sengers, F.; Wardekker, A. City-To-City Learning for Urban Resilience: The Case of Water Squares in Rotterdam and Mexico City. *Water* **2019**, *11*, 21, doi:10.3390/w11050983.

^a <https://www.resilientrotterdam.nl/veerkrachtig-botu-groenblauw-schoolplein-voor-kindcentrum-de-vlinder/>

^b <https://www.resilientrotterdam.nl/en/initiatives/wesociety-unites-the-city>

^c <https://www.resilientrotterdam.nl/en/initiatives/care-seekers-turn-into-care-providers>

^d <https://www.resilientrotterdam.nl/en/initiatives/new-creations-in-feijenoord>

^e <https://www.resilientrotterdam.nl/en/initiatives/opening-first-multi-car-charging-station-electric-cars>

^f <https://www.rotterdam.nl/english/urban-roofs/>

^g <https://www.resilientrotterdam.nl/initiatieven/hitte-app-extrema-rotterdam>

^h <https://www.resilientrotterdam.nl/en/initiatives/green-roof-harvests-1>

ⁱ <https://www.multifunctioneledaken.nl/>

^j <https://www.rotterdam.nl/english/urban-roofs/>

^k <https://www.resilientrotterdam.nl/en/initiatives/care-seekers-turn-into-care-providers>

^l <https://www.rotterdam.nl/english/urban-roofs/>

^m <https://www.rotterdam.nl/wonen-leven/waterplan-2/>

ⁿ <https://www.multifunctioneledaken.nl/>

^o <https://www.resilientrotterdam.nl/initiatieven/r-ix-voor-de-digistad-van-de-toekomst>

^p www.rotterdam.nl/wonen-leven/biodiversiteit

^q www.rotterdam.nl/wonen-leven/biodiversiteit