

# REGULATION on the Methodology for Calculating CARRYING CAPACITY

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# Comprehensive Reform of the Tourism Development Management Framework in Croatia



Legislative Framework Tourism Planning and Development

Monitoring of Tourism Development



# From the Tourism Act and the Regulation on Destination Management Plan Methodology

 From the Tourism Act and the Regulation on Destination Management Plan Methodology

#### NN 156/2023 (December 27, 2023),

Tourism Act

Art. 18, Para. 2:

"Carrying capacity of a destination is the level of tourist visitation that a tourist destination can sustain without causing unacceptable changes to environmental, social, economic, and infrastructural factors and without reducing the level of visitor satisfaction, all in accordance with the proposed methodology."

#### NN 112/2024 (September 27, 2024),

 Regulation on the Methodology for Developing Destination Management Plans

Art. 5, Para. 1:

"A destination management plan... must include the development of carrying capacity."

#### **Carrying Capacity of a Destination**

- Ecological Capacity
   Maximum level of visitation without irreversible environmental damage
- Socio-cultural Capacity
  Acceptable level of tourism impacts on the local community and cultural identity
- Economic Capacity
   Level of tourism activity that maximizes economic benefits without undermining long-term viability
- Psychological Capacity
   Level of tourism that does not negatively affect the experience or satisfaction of visitors
- Infrastructural Capacity
   Level of tourist numbers that can be supported by local infrastructure and public services

Source: Peeters, P., et al. "Research for TRAN Committee – Overtourism: impact and possible policy responses," European Parliament, 2018.

"The problems with carrying capacity led to a modification in approach, from asking, "**How many visitors is too many**?" to asking, "**What are the desired conditions**?" and a series of approaches evolved".



**Recreation Opportunity Spectrum (ROS)** 

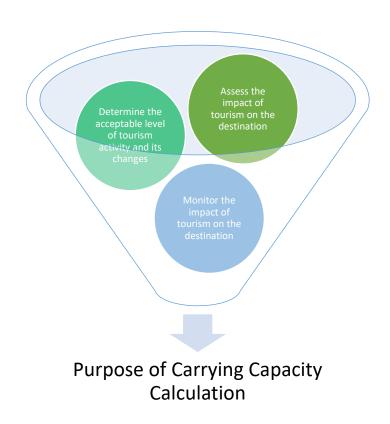


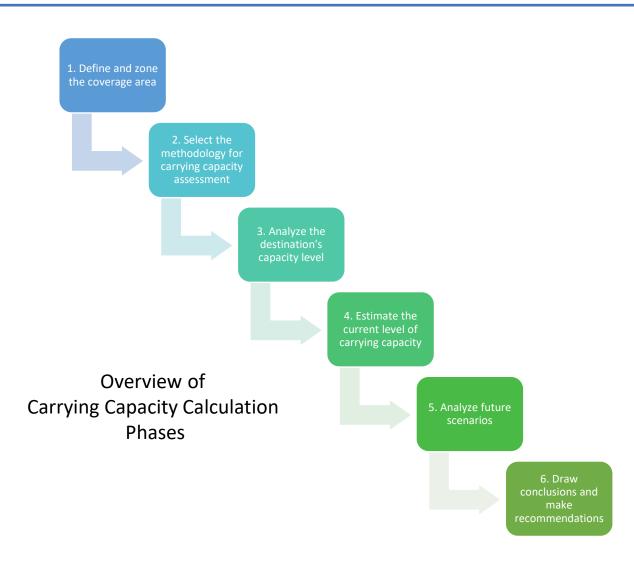
**Limits of Acceptable Change (LAC)** 

Spenceley, A. Briefing Paper on Sustainable Visitation Frameworks. (2022)



# Regulation on the Methodology for Calculating Carrying Capacity







### 1. DEFINING THE COVERAGE AREA AND ZONING

#### **Defining the Coverage Area**

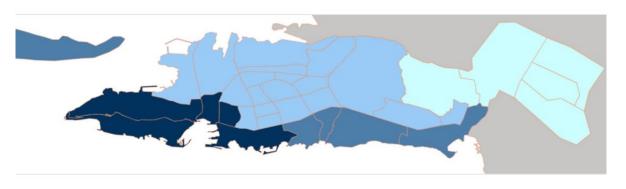
- Respecting strategic documents that define rivieras, regions, areas, islands, clusters, and other recognized tourism units
- Discussion at regional coordination level with representatives of Tourist Boards
- Considering tourism flows

### **Zoning: Division of space into spatial-functional zones:**

- Administrative organization of local self-government (settlements, districts)
- Spatial typologies based on varying relief and natural features, cultural and historical heritage, population density, level of urbanization, accessibility, etc.
- Intensity/type of tourism activity, especially similar in terms of intensity, visitor profile, or level of tourism infrastructure development
- Areas with the same or similar tourism product portfolios



#### Turističko zoniranje Splita



Zona 1: Uže središte	Grad, Bačvice, Lučac-Manuš, Meje, Varoš	Zona 2: Kupališni Split	Mertojak, Trstenik, Žnjan, Stobreč, Slatine	
Zona 3: Šire gradsko područje	Blatine-Škrape, Bol, Brda, Gripe, Kman, Kocunar, Lokve, Lovret, Mejaši, Neslanovac, Plokite, Pujanke, Ravne Njive, Sirobuja, Spinut, Split3, Sućidar, Šine, Visoka			
Zona 4: Zeleno zaleđe	Donje Sitno, Gornje Sitno, Kamen, Srinjine, Žrnovnica			

Split Tourist Board. (2024). Assessment of the carrying capacity of the City of Split.



### 2. SELECTION OF THE METHODOLOGY FOR CARRYING CAPACITY ASSESSMENT

#### QUANTITATIVE

- GOAL defining capacity intervals using numerical data to prevent negative consequences
- Recommended in situations where, due to the spatial characteristics, it is partially or entirely possible to manage visitor movement

#### QUALITATIVE

- GOAL assessing carrying capacity using non-numerical data and analyses
- Emphasis on understanding the perceptions, experiences, and attitudes of visitors, local communities, and other stakeholders

#### COMBINED

- Integrates aspects of both numerical and non-numerical analysis
- **Ultimate goal** making informed decisions on the direction of destination development and identifying limits of hotspot areas, which are often key attractions.

Tablica 35. Prihvatni kapacitet područja svjetskog dobra

Carrying Capacity
Number of Residents
Number of Hotel Guests
Other Accommodation Guests
Number of Employees
Number of Daily Visitors
Number of People in Public Areas
m² per person – Zone 1+2
m² per person – Stradun
Spending

	Razina tolerancije		
	Visoka	Umjerena	Niska
Prihvatni kapacitet	19.767	11.275	8.444
Broj stanovnika	1.200	1.200	1.200
Broj hotelskih gostiju	39 - 49	39 – 49	39 - 49
Broj gostiju ostalog smještaja	2.068 - 3.978	2.068 - 3.978	2.068 - 3.978
Broj zaposlenika	1.582	1.582	1.582
Broj dnevnih posjetitelja	14.878 - 12.958	6.386 - 4.466	3.555 - 1.635
Broj osoba na javnim površinama	4.803 - 4.778	2.680	1.972
m² po osobi – Zona 1+2	6,28 - 6,31	11,25	15,29
m² po osobi – Zona 1	3,81 - 3,83	6,84	9,29
m² po osobi – Stradun	1,38	2,48	3,35
Potrošnja	1,39 - 1,54 mil. EUR	0,8 - 0,9 mil. EUR	0,6 - 0,7 mil. EUR

University of Dubrovnik. (2025). Carrying capacity assessment of the UNESCO World Heritage Site "Old City of Dubrovnik" (p. 75).

Split Tourist Board. (2024). Assessment of the carrying capacity of the City of Split.

Destinacijski sustavi grada Splita	Kritični faktor	Status
Institucionalni i strateški okvir upravljanja turizmom	<b>Usko grlo:</b> Neefikasnost sustava upravljanja održivim razvojem turizma	<ul> <li>Nepostojanje sustava monitoringa utjecaja turizma;</li> <li>Nedostatak koordinacije nadležnih tijela i institucija u turizmu;</li> <li>Nedostatak strateškog razvojnog plana održivog turizma.</li> </ul>
Korištenje turističke atrakcijske osnove	Usko grlo: Izrazita koncentracija turistima namijenjenih sadržaja u zonama 'Središnji Split' i 'Kupališni Split'	<ul> <li>Koncentracija turistima namijenjenih sadržaja, uključujući npr. oko 70% ukupne restoranske i sl. ponude, dovodi do iritacije stanovnika uslijed istiskivanja sadržaja važnih za lokalnu zajednicu i uslijed percepcije gubitka duha Grada.</li> </ul>
	Usko grlo: Prekomjerna koncentracija kupača na gradskim plažama	<ul> <li>Kupačima je raspoloživa je sub- standardna površina plažnog prostora od 1,2m²/osobi.</li> </ul>



### 3. ANALYSIS OF DESTINATION CARRYING CAPACITY LEVEL

### PURPOSE OF THE ANALYSIS – identifying bottlenecks and constraints to the tourism development within the destination

- 1. Review and analysis of sustainability indicators proposed by a special regulation (17+50)
- Review, analysis, and interpretation of carrying capacity indicators (36 mandatory + 35 additional)
- 3. Listing and analysis of resource base, which is an integral part of the destination management plan

#### BASED ON THE ANALYSIS

- Impact indicators are calculated separately for each analyzed year/area
- 2. Standards are established for individual indicators that define the acceptable level of tourism impact, in relation to the legal framework, strategic goals, vision, and stakeholder needs

### Categories of carrying capacity indicators applied in the analysis:

- 1. Institutional and strategic framework (1)
- 2. Accommodation capacities (5)
- 3. Tourism demand (1)
- 4. Resource and attraction base (8)
- 5. Environment (3)
- 6. Space (land use) (4)
- 7. Utility infrastructure (5)
- 8. Transport infrastructure (4)
- 9. Population and quality of life (3)
- 10. Employment, economy, and importance of tourism (1)

#### 11. + 35 additional indicators

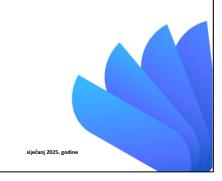


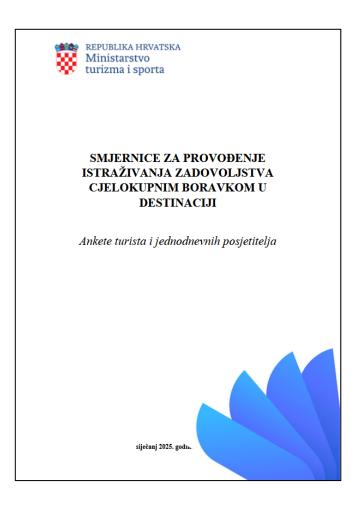
### 3. ANALYSIS OF DESTINATION CARRYING CAPACITY LEVEL



# SMJERNICE ZA PROVOĐENJE ISTRAŽIVANJA STAVOVA LOKALNOG STANOVNIŠTVA O TURIZMU I UTJECAJU TURIZMA NA KVALITETU ŽIVOTA

Anketa lokalnog stanovništva





#### 2.2. Omjer broja kreveta u nekomercijalnom smještaju u odnosu na 100 stanovnika

Pokazatelj		Omjer broja kreveta u nekomercijalnom smještaju u odnosu
		na 100 stanovnika
Povezanost	Povezanost	UNWTO - MST/ETIS (prilagodba) - Broj turističkih kreveta na
pokazatelja	pokazatelja s	100 stanovnika
58	međunarodnim	
sustavima	sustavima	
	Povezanost sa	Članak 14. stavak 2.
	Zakonom o turizmu	<ul> <li>zadovoljstvo lokalnog stanovništva turizmom/održivo upravljanje prostorom</li> </ul>
	Povezanost sa SDG-	Cilj 11 – Održivi gradovi i zajednice
	ovima	Cilj 12 – Odgovorna potrošnja i proizvodnja
	Povezanost sa	Strateški cilj: Turizam uz očuvan okoliš, prostor i klimu
	Strategijom i	Posebni cilj: Smanjenje negativnog utjecaja turizma na sastavnic
	Nacionalnim planom	okoliša, prirodu i prostor
Obilježja pokazatelja	Definicija	Pokazateljem se definira omjer broja kreveta u nekomercijalnom
		smještaju (kućama i stanovima za odmor) u destinaciji u odnos
		na stotinu stalnih stanovnika.
	Opis	Ovim pokazateljem se procjenjuje intenzitet turizma, odnosno
		razina objektivnog opterećenja koju turizam u periodu glavn
		turističke sezone stvara po lokalno stanovništvo, ali i na prostor t
		infrastrukturu.
Podatci	Naziv podataka	Broj turističkih kreveta u nekomercijalnom smještaju
		2. Broj stanovnika destinacije
	Mjerna jedinica	1. Krevet
		2. Stanovnik
	Izvor	1. eVisitor
	podataka/potencijalni	2. Državni zavod za statistiku, baza "Gradovi u statistici"-
	izvor	Procjena stanovništva, stanje na dan 31. prosinca
		(https://podaci.dzs.hr/media/bz5hplcj/gradovi-u-statistici.xlsx)
	Dostupnost podataka	1. Podatak je dostupan
	i podatkovni jaz	2. Podatak je dostupan

10



turizma i sporta		
Periodičnost prikupljanja podataka	Jednom godišnje	
Metodologija izračuna pokazatelja	broj kreveta u nekomercijalnom smještaju na $= \frac{K_{NO}}{S}  imes 100$ stalnih stanovnika $= \frac{K_{NO}}{S}  imes 100$	
	gdje su $K_{NO} - \mbox{ broj kreveta u nekomercijalnom smještaju} \\ S - \mbox{ broj stalnih stanovnika u destinaciji}$	
Učestalost mjerenja Svake četiri godine		
Zoniranje	izračun po unaprijed utvrđenim zonama	
Ograničenja pokazatelja i perspektive		



# 4. Assessment of the Achieved Level of Carrying Capacity

#### **Shows:**

- The difference between the actual state of specific tourism activity characteristics based on measured impact indicators and established standards and/or
- Interval estimation of the number of visitors that are acceptable in the observed area under sustainable tourism development conditions

### It may be:

- Above the defined standard of acceptability – immediate corrective actions are required (exceeded capacity)
- Below the defined standard of acceptability, and the indicator value is up to 1/3 below the set standard – corrective measures should be prepared (approaching capacity)
- Below the defined carrying capacity, and the indicator value is more than 1/3 below the set standard – activities and visitor numbers are within the acceptable range, according to scenario results (within carrying capacity zone)



### **Scenario Analysis**

- Development of growth scenarios necessary for assessing potential future changes in carrying capacity
- Establishes a framework for proactive action

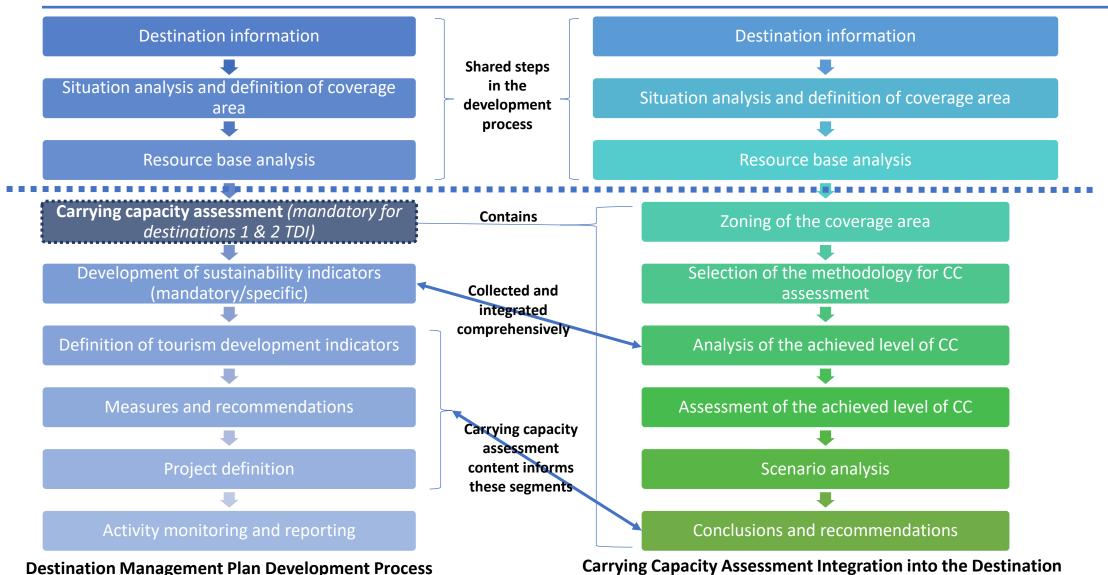
### **Conclusions and Recommendations**

- Overview of key findings
- Recommendations to mitigate gaps between the current state and desired/acceptable changes in selected indicators



# Destination Management Plan Development Process

**Management Plan** 





### Thank you for your attention!

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