LOCAL SHELTER PLANNING MANUAL
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Introduction

o **Legal Basis:** R.A. 7160 and R.A. 7279
o **Sec. 40 of RA 7279**: *to provide LGUs technical support in the preparation of town and land use plans*

LSP Manual aims to guide the LGUs in:

o estimating number of households in need of housing assistance, assessing resources for shelter provision, generating shelter strategies

Scope and Delimitation

o New **housing units needed** due to backlog and future need;
o **Affordable housing loan**

Concepts, Definition of Terms and Computations

- **Household** is a social unit consisting of a person living alone or a group of persons who sleep in the same housing unit and have a common arrangement in the preparation and consumption of food (PSA).

- Household = family.

- **1 house per household**

- **New housing units needed = housing backlog + the future need**

- **Backlog** is the number of dwelling units needed at the beginning of the planning period.

- **Backlog = homeless + doubled-up + the displaced**

- **Homeless** refers to **individuals** or **households** living in public spaces (such as parks and sidewalks) and all those <u>without any form of shelter</u>.

BOX NO. 1 Computing for Homeless Households

Formula:

Homeless Households = $\dfrac{\text{Total Homeless persons - Homeless individuals}}{\text{Average HH size}}$

Given:

Homeless persons = 98 homeless persons

Homeless Individuals = 8 (not part of household)

Average Household Size = 4.5

Solution:

$$98 - 8 = \frac{90}{4.5} = 20 \text{ homeless households}$$

Therefore:

Homeless HH =   20 homeless households

              +   8 homeless individuals

              28 Total Homeless Households

BOX NO. 2. Solving for Household per Dwelling Unit

Formula:

Household per Dwelling unit $=$ $\dfrac{\text{No. of HHs as of latest census}}{\text{No. of Occupied Dwelling Units as of latest census}}$

Given:

No. of Households as of latest census (2015)   = 26,889
No. of Dwelling units as of latest census (2015)   = 26,541

Solution:

Household per Dwelling Unit $= \dfrac{26,889}{26,541}$ =**1.0131**

BOX NO. 4. Computing the Doubled-up Households

Formula:

Doubled-up Households **=**	Percentage of HHs per Dwelling Unit X Housing Stock during base year

Given:

No. of Housing Stock during base year   = 27,138
Household per Dwelling Unit = 1.0131 or 1.31% of Housing Stock

Solution:

Doubled-up Households = 1.31%   X   27,138
                            100

                         =355.50 or rounded off to 356

BOX NO. 3. PROJECTING THE BASE YEAR HOUSING STOCK
(OCCUPIED DWELLING UNITS)

Formula:

Base Year Housing Stock = $\dfrac{\text{No. of households in base year – Homeless}}{\text{Household per dwelling unit}}$

Given:

No. of Households in base year = 27,522
No. of Homeless in base year = 28
HH/DU in base year = 1.0131

Solution:

Housing Stock = $\dfrac{27,522 - 28}{1.0131}$ = **27,138**

	Total	Program Period
Displaced	**8,025**	**2018-2027 (10 years)**
Flood(938 HHs)		
Brgy 1.	154	2018
Brgy 4	254	2018
Brgy 5.	126	2019
Brgy Rizal	404	2019
Storm Surge (515 HHs)		
Brgy. Balaring	515	2022
Landslide (2,652 HHs)		
Brgy. E. Lopez	759	2023
Brgy. Hawaiian	1,893	2024
		2025
RROW (1,203 HHs)		
Brgy. Lantad	909	2020
		2021
Brgy. 2	274	2018
Brgy. 3	20	2018
Climate Change/ Sea Level Rise (2,717 HHs)		
Brgy. Mambulak	1,439	2026
Brgy. Guimbalaon	157	2027
Brgy. Guinhalaran	1,121	2027
TOTAL BACKLOG	**8,409**	

Table 1.Distribution of New Units Needed Due to Backlog, 2017

	Total	Annual	Program Period
Doubled-up (1.31 % of Housing Stock)	**356**	**51**	**2021-2027 (7 years)**
Homeless	**28**	**14**	**2019-2020 (2 years)**
Displaced	**8,025**		**2018-2027 (10 years)**
Brgy 1.	154	**702**	2018
Brgy 4	254		
Brgy. 2	274		
Brgy. 3	20		
Brgy 5.	126	**530**	2019
Brgy Rizal	404		
Brgy. Lantad	909	**454**	2020
		455	2021
Brgy. Balaring	515	**515**	2022
Brgy. E. Lopez	759	**759**	2023
Brgy. Hawaiian	1,893	**946**	2024
		947	2025
Brgy. Mambulak	1,439	**1,439**	2026
Brgy. Guimbalaon	157	**1,278**	2027
Brgy. Guinhalaran	1,121		
TOTAL BACKLOG	**8,409**		

Housing Stock = 27,138

1.2 Projecting Future need
Future Need = No. of HHs in last PP – No. of HHs in BY
Future Need = **30,916 - 27,522 = 3,394 households.**

	Data as of Latest Census	Base Year	1st Planning Period		2nd Planning Period	3rd Planning Period
	Year X	Year A	Year B	Year C	Year D	Year E
	2015	2017	2018	2020	2023	2027
HH Population	120,999	123,847	125,296	128,245	132,799	139,124
No. of Households	**26,889**	**27,522**	**27,844**	**28,499**	**29,511**	**30,916**
Average HH size	4.5	4.5	4.5	4.5	4.5	4.5
Housing stock	26,541	27,138				

Average Annual growth rate = **1.17%**
Year X – Latest census year
Year A – Base Year
Year B – first year of 1st Planning Period

Year C – last year of 1st Planning Period
Year D – last year of 2nd Planning Period
Year E - last year of 3rd Planning Period

	Data as of Latest Census	Base Year	1st Planning Period		2nd Planning Period	3rd Planning Period
	2015	2017	2018	2020	2023	2027
HH Population	120,999	123,847	126,296	128,245	132,799	139,124
No. of Households	**26,889**	**27,522**	**27,844**	**28,499**	**29,511**	**30,916**
Average HH size	4.5	4.5	4.5	4.5	4.5	4.5
Housing stock	26,541	27,138				

Table 3. New Units Needed Due to Future Need (*Population Increase*)

PLANNING PERIOD		HOUSEHOLDS IN PLANNING PERIODS	TOTAL NO. OF UNITS NEEDED DUE TO POPULATION GROWTH	NO. OF YEARS IN A PLANNING PERIOD	NEW UNITS NEEDED ANNUALLY
1st	2018-2020	28,499 - 27,522 =	977	÷ 3 years =	**326**
2nd	2021-2023	29,511 - 28,499 =	1,012	÷ 3 years =	**337**
3rd	2024-2027	30,916 - 29,511=	1,405	÷ 4 years =	**351**
TOTAL			**3,394**		

Total New Units Needed Due to Backlog and Future Need

Table 4. Total New Units Needed Due to Backlog and Future Need

Year	BACKLOG			FUTURE NEED (Population Increase)	Annual Total	Total for the planning period
	Doubled-up	Displaced	Homeless			
2018		702		325	1,027	2,691
2019		530	14	326	870	
2020		454	14	326	794	
2021	50	455		337	842	2,893
2022	51	515		337	903	
2023	51	759		338	1,148	
2024	51	946		351	1,348	6,219
2025	51	947		351	1,349	
2026	51	1,439		351	1,841	
2027	51	1,278		352	1,681	
TOTAL	356	8,025	28	3,394	11,803	11,803

Table 5 . Affordable Housing Loan per Income Group

Income Group	1st	2nd	3rd	4th	5th	6th
Monthly HH Income	8,000 and below	8,001-15,000	15,001-30,000	30,001-45,000	45,001 - 60,000	Over 60,000
% of new units	45%	21.75%	25.5%	4.85%	2.10%	0.80%
Number of units **11,803**	5,311	2,567	3,010	572	248	95
Typical monthly income	5,000.00	11,500.00	22,500.00	37,500.00	52,500.00	75,000.00
Potential % of income for new housing	12 %	12 %	15 %	15 %	18 %	20 %
Potential capital cost for housing:						
Monthly	600.00	1,380.00	3,375.00	5,625.00	9,450.00	15,000.00
Annual	7,200.00	16,560.00	40,500.00	67,500.00	113,400.00	180,000.00
Loan Terms						
* Interest rate	3 % (Pag-IBIG: Monthly Income not exceeding P12,000)	6% (straight; without re-pricing)	7 % (3 years re-pricing @6.5%/yr)	7% (3 years re-pricing @6.5%/yr)	8% (10years re-pricing @8.035%/yr)	8% (10years re-pricing @8.035%/yr)
*Repayment pd.	30	30	30	25	25	25
Affordable housing loan	7,200 x 19.600 **141,120**	16,560 x 13.765 **227,948**	40,500 x12..409 **502,564**	67,500 x 11.654 **786,645**	113,400 x 10.675 **1,210,545**	180,000 x10.675 **1,921,500**

Table 6.Table of Annuity Factor

ANNUITY FACTOR													
Present value interest factor of an (ordinary) annuity of P1 per period at i% for n periods													
Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893	0.885	0.877
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736	1.713	1.690	1.668	1.647
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487	2.444	2.402	2.361	2.322
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170	3.102	3.037	2.974	2.914
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791	3.696	3.605	3.517	3.433
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355	4.231	4.111	3.998	3.889
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868	4.712	4.564	4.423	4.288
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335	5.146	4.968	4.799	4.639
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759	5.537	5.328	5.132	4.946
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145	5.889	5.650	5.426	5.216
15	13.865	12.849	11.938	11.118	10.380	9.712	9.108	8.559	8.061	7.606	7.191	6.811	6.462	6.142
16	14.718	13.578	12.561	11.652	10.838	10.106	9.447	8.851	8.313	7.824	7.379	6.974	6.604	6.265
17	15.562	14.292	13.166	12.166	11.274	10.477	9.763	9.122	8.544	8.022	7.549	7.120	6.729	6.373
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.372	8.756	8.201	7.702	7.250	6.840	6.467
19	17.226	15.678	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365	7.839	7.366	6.938	6.550
20	18.046	16.351	14.877	13.590	12.462	11.470	10.594	9.818	9.129	8.514	7.963	7.469	7.025	6.623
25	22.023	19.523	17.413	15.622	14.094	12.783	11.654	10.675	9.823	9.077	8.422	7.843	7.330	6.873
30	25.808	22.396	19.600	17.292	15.372	13.765	12.409	11.258	10.274	9.427	8.694	8.055	7.496	7.003

Thank You