



مؤتمر الكويت للإسكان  
KUWAIT HOUSING CONFERENCE

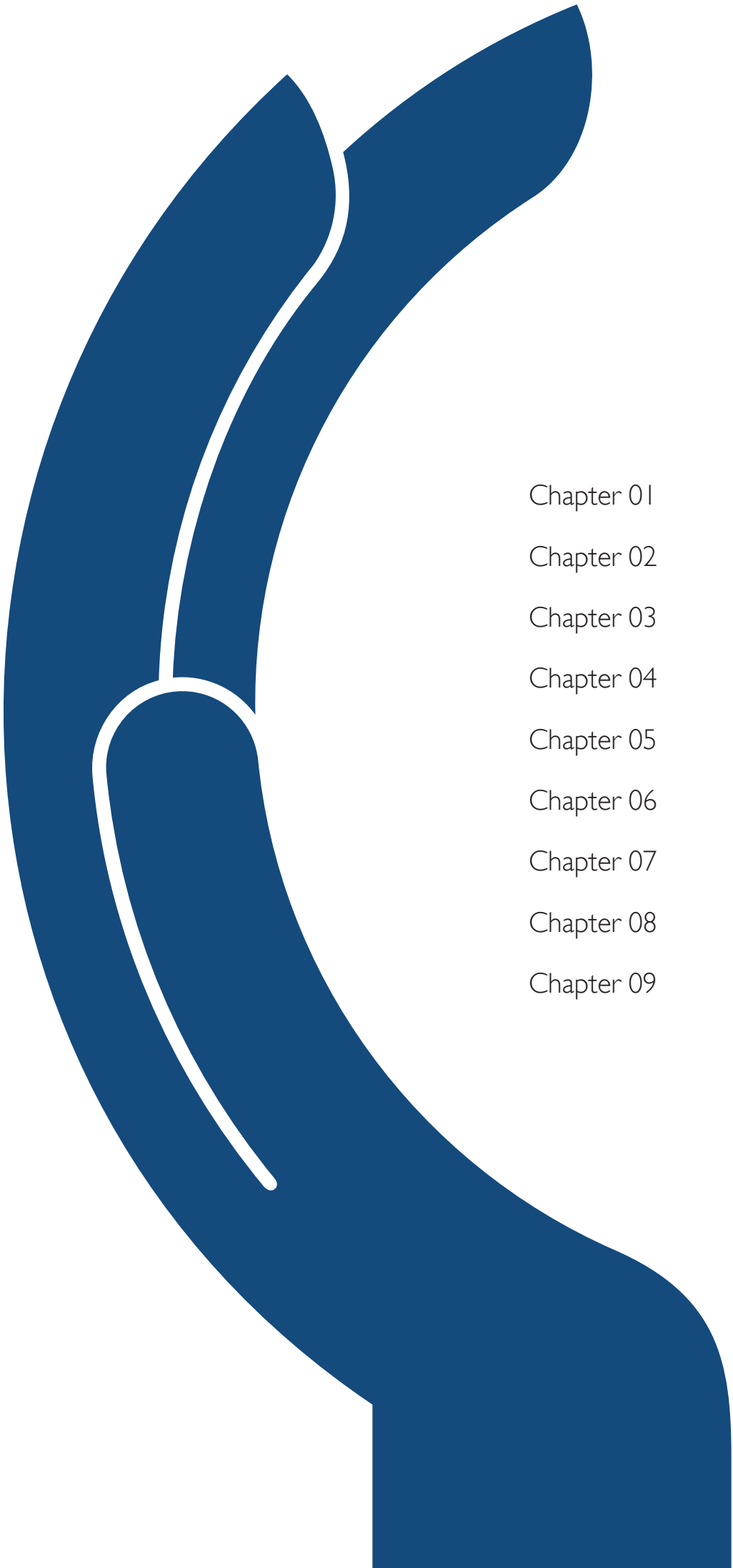


مجلس الأمة  
KUWAIT NATIONAL ASSEMBLY

# The Propose Housing Strategy In Kuwait

## Facts & Solutions





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## **Introduction**

Housing is a basic social requirement. At a basic level, it fulfils the shelter and the comfort requirements. At a societal level, housing clusters create neighborhoods that build up into communities. Housing is also the single biggest source of wealth for households in general.

Little wonder then that government around the world attach top most priority to the citizen's housing provisions. In Kuwait, the government has taken the noble initiative of providing housing to all citizens.

Housing provisions have fallen short in Kuwait over the last 20 years due to multiple factors. There are now 108,288 pending applications for housing and our projections show that the demand for housing will be 342,960 houses over the next 20 years. Such a massive expansion of housing supply calls for a sound and well thought out strategy that considers all aspects of the issue.

### **Key Elements and the Objectives of a Holistic Housing Strategy**

The housing strategy is one of the most complicated policy to formulate. It involves consideration of a number of related policies matters. Infrastructure such as road network, electricity, water, telecom, etc. are to be considered along with their funding sources. Legal framework, development control regulations, mortgage laws, roles and responsibilities of the public and private sectors, etc. are some other considerations.

We have set the following objectives of the housing strategy that connects all the segments of the economy and leads to the development on various government and private institutions to make it sustainable:

1. With rapid increase in Kuwaiti population, the housing applications are increasing fast. The waiting period has increased to 18 years and it is likely to increase further. Thus, the key objective of the housing strategy is provide a housing solution to all Kuwaiti families over the next 20 years.
2. Examine the average house sizes in Kuwait and rationalize if these are not in line with the other countries.
3. Experience in several countries across the world shows that reliance on public sector alone cannot solve the social housing objectives. Thus, the second objective is to devise ways to involve private sector to develop social housing in order to speed up the housing supply.
4. With the involvement of the private sector, it is critical to ensure that companies do not indulge in manipulation of the market in any manner. Thus, the housing strategy must suggest all necessary steps to safeguard against this risk.
5. There are a number of subsidies attached to social housing program and overtime these subsidies are becoming unsustainable. Thus, the housing strategy must suggest methods to gradually reduce the subsidies burden and pass it on to households and private sector.
6. Develop energy management strategies to progressively reduce the energy consumptions in the economy.
7. To ensure the long-term sustainability of housing market, it is critical to develop domestic mortgage financing industry. Thus, the housing strategy must include a stage wise formula for the development of mortgage financing market in Kuwait.
8. The energy consumption is a big annual subsidy burden on the government and the housing strategy must suggest methods for energy management.

9. Increase in housing supply likely to have a multiplier effect on several sectors of the economy that will increase the requirement for commercial areas such as office space, retail space and industrial space and investment areas to house the expat population. Thus, a holistic plan needs to be created in order to realistically achieve the housing policy targets.
10. Identify multiple sources of funds for the government to finance the expansion in housing supply without putting undue burden on oil revenues.

### **Disclaimers**

While adequate care has been taken in verifying the data and estimating various numbers, we state that the document has been prepared in good faith based on the information available at the date of publication without any independent verification.

The agencies involved in preparation of this document and the Real Estate Union do not guarantee or warrant the accuracy, reliability, completeness or currency of the information in this publication nor its usefulness in achieving any purpose. We accept no liability for loss arising from the use of the material presented in this report.

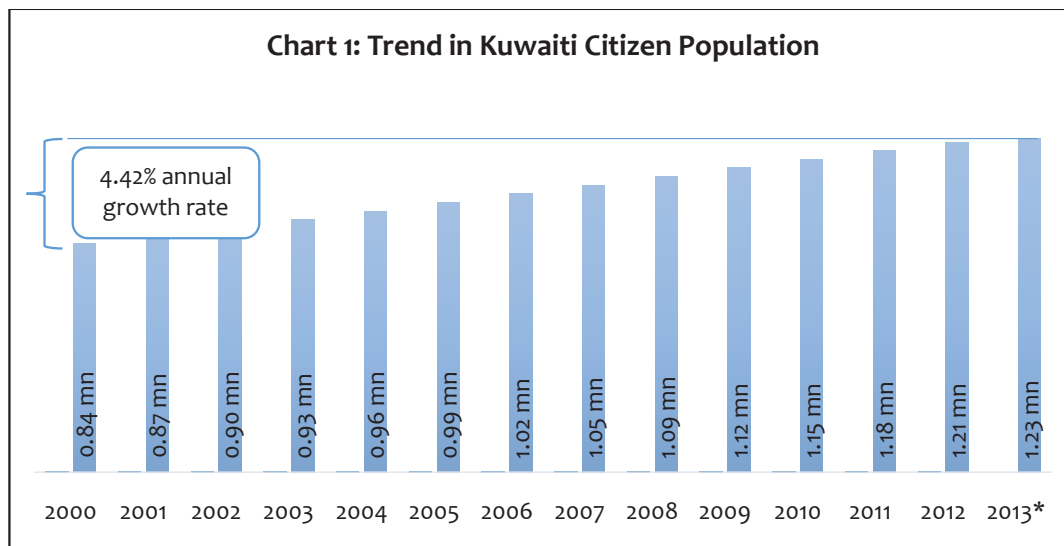
The report delivers broad framework of a potential housing strategy but we believe the government must set up multiple committees to examine each issue in details before formalizing any strategy.

# Chapter 1

### Housing Provisions Falling Short in Kuwait

The housing supply in Kuwait, especially for Kuwaiti citizens, have fallen short by a wide margin over the last 10-12 years. Over this period, the population grew significantly but the housing supply failed to keep pace for a number of reasons.

Chart 1 shows that the Kuwaiti Citizen population that was 0.84 million in 2000 increased to 1.23 million by Jun 2013. This is a growth rate of 4.42% per annum over 13 years.



Source: Public Authority for Civil Information

\* Jun 2013 data, which is the latest data available till date

#### Note on Data Source

We note that there are discrepancy in demographic data from PACI and from Kuwait Census published by Central Statistical Bureau. For example, the yearly population numbers published in CSB Annual Statistical Reports are consistently showing lower population than shown by the PACI data. For 2011 for which the last comparable data is available, the Census population was 3,065,850 but the PACI number was 3,697,292 – a difference of 20.6%.

The PACI data was available annually in the publications of CSB until 2004 but many of the time series were discontinued in the CSB publications from 2005 onwards. PACI launched its own website in recent years and detailed 2013 data is now available in public domain. The Census data by its nature cannot be produced yearly and therefore, several data points are not available for the period 2005-2013.

For the purpose of the analysis in this report, we have used the PACI data as much as possible and made use of projections / estimations wherever there are gaps. This is done in order to maintain consistency of data because PACI data has the maximum availability on yearly frequency. We have highlighted the estimates wherever we have used them.

Table 1 shows the PACI data on Kuwaiti population and number of households. With these two data, the average family size can be deduced. While the PACI data on population is available for the entire period of 2000 to 2013, the number of households data is not available for the period 2005 until 2012. To fill this gap, we have used the family size average of the year 2004 and 2013 to estimate the number of households data for the missing period. This is shown in grey shade in the table.

| Year  | Kuwaiti Population | No. of Kuwaiti Households / Families | Average Family Size |
|-------|--------------------|--------------------------------------|---------------------|
| 2000  | 841,790            | 153,587                              | 5.48                |
| 2001  | 870,283            | 164,107                              | 5.30                |
| 2002  | 898,285            | 178,215                              | 5.04                |
| 2003  | 927,686            | 189,042                              | 4.91                |
| 2004  | 956,234            | 198,413                              | 4.82                |
| 2005  | 992,217            | 204,170                              | 4.86                |
| 2006  | 1,023,316          | 210,569                              | 4.86                |
| 2007  | 1,054,598          | 217,006                              | 4.86                |
| 2008  | 1,087,552          | 223,787                              | 4.86                |
| 2009  | 1,118,911          | 230,240                              | 4.86                |
| 2010  | 1,148,363          | 236,300                              | 4.86                |
| 2011  | 1,183,185          | 243,465                              | 4.86                |
| 2012  | 1,212,436          | 249,484                              | 4.86                |
| 2013* | 1,227,021          | 250,406                              | 4.90                |

Source: Public Authority for Civil Information

\* Jun 2013 data, which is the latest data available till date

Table 2 below shows the data on number of Kuwaiti households, number of private houses and the housing shortage. PACI data on the number of private houses is not available for the period 2005 - 2012.

The housing shortage in the year 2000 was 47,784, which reached 77,106 by 2004. It has now reached 110,385 in the year 2013. This number is validated by the 108,288 applications that are pending with Public Authority of Housing Welfare. Thus, it is a reliable estimate of private housing shortage in Kuwait.

| Year  | Kuwaiti | Private Houses | Housing Shortage |
|-------|---------|----------------|------------------|
| 2000  | 153,587 | 105,803        | 47,784           |
| 2001  | 164,107 | 111,202        | 52,905           |
| 2002  | 178,215 | 115,152        | 63,063           |
| 2003  | 189,042 | 115,663        | 73,379           |
| 2004  | 198,413 | 121,307        | 77,106           |
| 2005  | 204,170 | NA             | NA               |
| 2006  | 210,569 | NA             | NA               |
| 2007  | 217,006 | NA             | NA               |
| 2008  | 223,787 | NA             | NA               |
| 2009  | 230,240 | NA             | NA               |
| 2010  | 236,300 | NA             | NA               |
| 2011  | 243,465 | NA             | NA               |
| 2012  | 249,484 | NA             | NA               |
| 2013* | 250,406 | 140,021        | 110,385          |



Source: Public Authority for Civil Information and Central Statistical Bureau

\* Jun 2013 data, which is the latest data available till date

Data in grey shade are estimations shown in Table 1

### Inadequate Housing Delivery Over the last 10-12 Years led to a Build up the Backlog

Table 3 shows the yearly trends in number of housing applications and government delivery track record since the year 2000. We note the following:

1. Except for the year 2001, the housing delivery from the government has always been short of the number of new housing applications for any year.
2. The government housing delivery data for the year 2012 and 2013 is not yet available.
3. The shortage in housing delivery has been substantial from 2006 onwards.
4. From 2000 until 2011, the cumulative delivery shortage was 50,078 houses.
5. We also note that from the year 2000 until year 2006, the number of housing applications cancelled were substantial every year. The cancellations were even higher in the previous decade when on average 1,700 applications were cancelled every year.
6. Nevertheless, the cancellations have dropped to practically nil by the year 2012 and 2013.
7. This is because earlier it was a common practice for the citizens to buy land with their own money and then take KD 70,000 from Savings and Credit Bank to build a house. However, as the land prices skyrocketed since 2006, it is unaffordable for citizens to buy land and thus, the cancellations have stopped. We have discussed this issue in some more details in a later chapter.

| Year | Applications | Cancelled Applications | Delivered Houses | Delivered Plots | Total Delivered | Difference (-) / + |
|------|--------------|------------------------|------------------|-----------------|-----------------|--------------------|
| 2000 | 5,654        | 920                    | 1,239            | 1,242           | 2,481           | (3,173)            |
| 2001 | 6,763        | 822                    | 4,553            | 4,322           | 8,875           | 2,112              |
| 2002 | 7,292        | 766                    | 768              | 2,601           | 3,369           | (3,923)            |
| 2003 | 7,217        | 574                    | 807              | 2,085           | 2,892           | (4,325)            |
| 2004 | 7,094        | 482                    | -                | 2,277           | 2,277           | (4,817)            |
| 2005 | 7,475        | 519                    | -                | 1,799           | 1,799           | (5,676)            |
| 2006 | 9,571        | 367                    | 515              | 511             | 562             | (9,009)            |
| 2007 | 8,842        | 260                    | -                | 601             | 601             | (8,241)            |
| 2008 | 8,304        | 210                    | 457              | 3,154           | 3,611           | (4,693)            |

|      |       |    |         |           |         |         |         |
|------|-------|----|---------|-----------|---------|---------|---------|
| 2009 | 7,809 | 92 | 781,784 | -         | 781,784 | (7,028) | (7,028) |
| 2010 | 8,021 | 54 | 652,652 | -         | 652,652 | (7,369) | (7,369) |
| 2011 | 7,975 | 31 | 824,824 | 1,564,156 | 2,388   | (5,587) | (5,587) |
| 2012 | 8,437 | 6  | 214     | 491       | 705     | (7,732) |         |
| 2013 | 8,508 | 1  | -       | 529       | 529     | (7,979) |         |

Source: PAHW and Public Authority for Civil Information and Central Statistical Bureau

The combination of rapidly increasing number of households and the inadequate housing development led to a shortage of nearly 108,288 private houses in Kuwait. The government estimates that currently the average waiting period for a house through the government schemes has reached 18 years. This point needs some clarification.

The waiting period of 18 years means that an applicant who registered for government housing 18 years ago is now getting the house. However, given the current pace of supply, an applicant who is registering for a house in 2014 is likely to wait far longer to get a house. At an average supply rate of last 12 years shown in Table 3, an applicant registering in 2014 might have to wait for 43 years to get a house. Clearly, the waiting period will keep on increasing every year unless a dramatic increase in the housing supply is achieved.

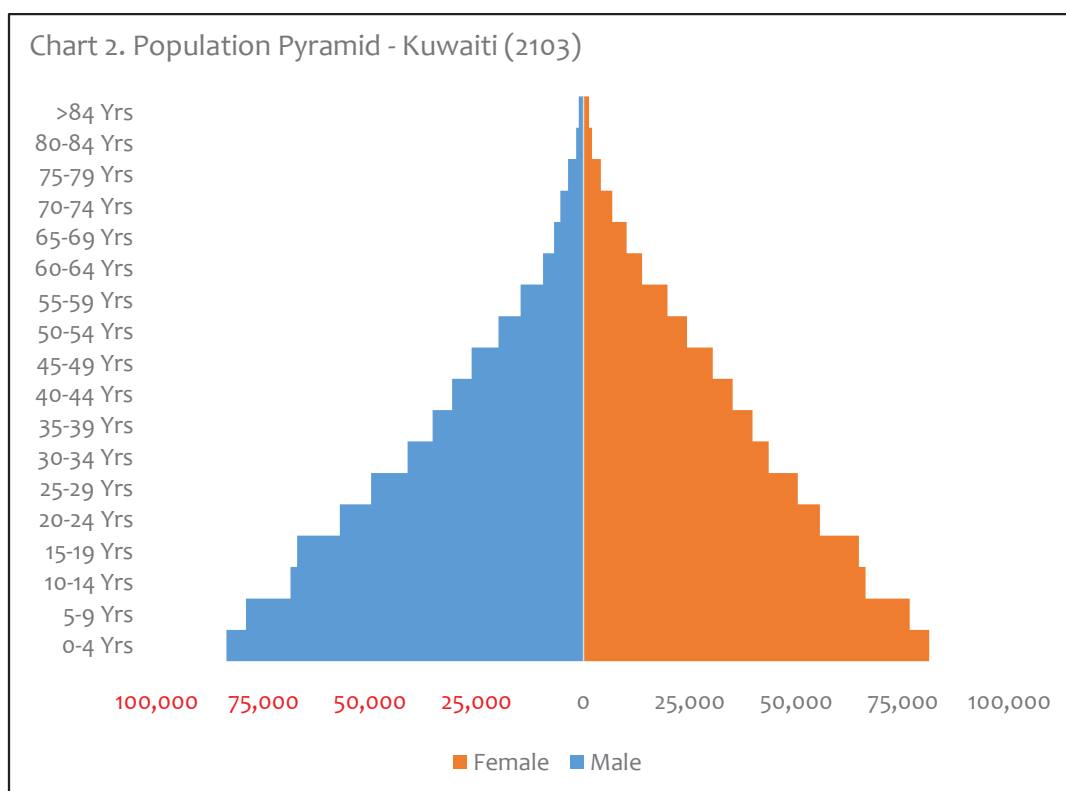
The situation is likely to worsen further because the population pyramid in Kuwait is bottom heavy. This means that the number of housing applications will keep on increasing for the foreseeable future. This issue and the proposed increase in the housing supply is addressed in the next chapter.

## Chapter 2

**Bottom Heavy Population Pyramid Indicates the Housing Applications will Increase Rapidly in Future**

Chart 2 below shows that the population pyramid for Kuwaiti population in 2013. More than 72% of Kuwaiti population is below 34 years of age. Further, nearly 48% of the population is below 19 years of age. This means that the number of marriages will increase exponentially as this very young population attentions adulthood.

The chart also shows that the proportion of male population below 19 years of age is higher than the proportion of the female population. Thus, more Kuwaiti males will attain adulthood than Kuwaiti females over the next 10 years.

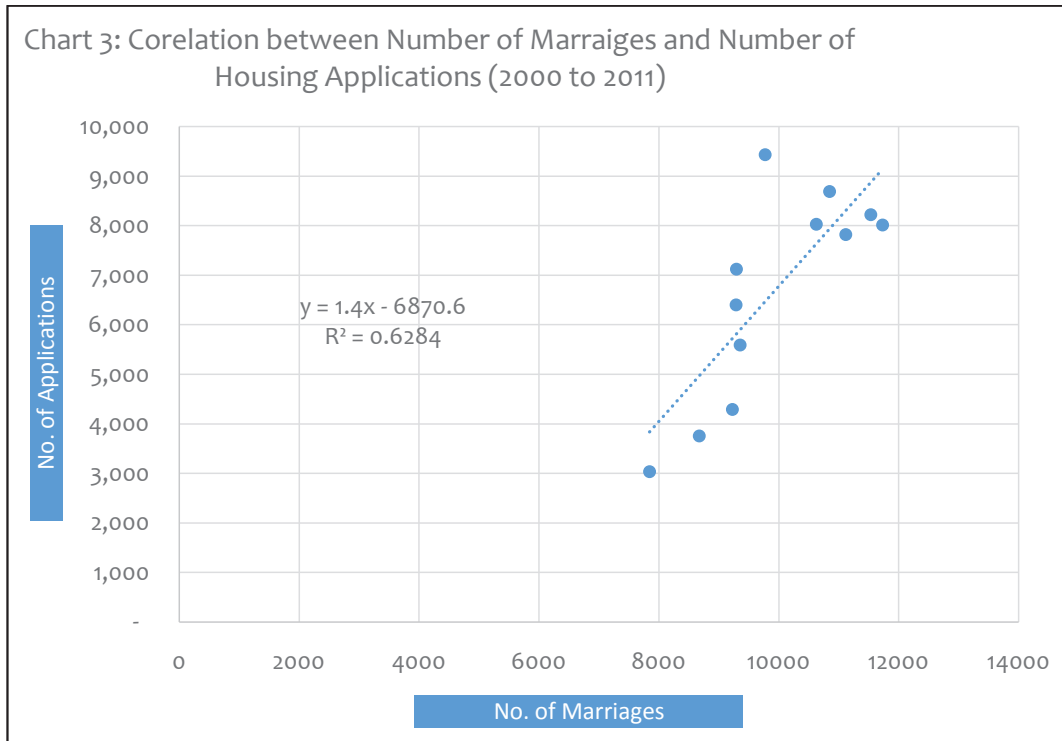


Source: PACI

The applications for housing in any year are co-related to the number of marriages with some differences because of second marriages, re-marriages and divorces. As per the current practice, a newly married couple is eligible to apply for housing with PAHW if the male does not have any real estate. In this case the couple waits for the government to allocate them a house or an undeveloped plot. Alternatively, the couple can take KD 70,000 from the Bank of Savings and Credit for either buying a land or if they already have a land this money can be used for construction.

Chart 3 shows the historical relationship between the number of marriages and number of housing applications for the period 2000 to 2011. The equation is shown in the chart and the R2 of the equation is 62.8%. In simple language, this means that nearly 63% of the variations in the number of applications is explained by the number of marriages.

There are some limitations because the number of data points are not sufficient but we used the analysis to provide the benchmarks for the new housing applications in the years to come. In the absence of any other method, this remains the most logical method of projection.



Source: PAHW and PACI

As mentioned before, the difference between the number of marriages and the number of applications arise due to second marriages, re-marriages and in some rare cases where the groom already owns a real estate in his name in Kuwait.

To be able to use the equation shown on Chart 3 to project the number of applications, we followed the methodology:

1. Based on the historical trends, we created Kuwaiti population projections.
2. Using the current male and female ratio, we forecasted the Male Kuwaiti population until 2023 – a period of 10 years.
3. Based on the current age group wise population, we created year wise age group breakdown for 2014 until 2023. This is done for only the male population as this is used in the projections of marriages. The nationality of the wife does not matter for the housing application.
4. Based on the current marriage wise status of each age group, we forecasted the number of marriages in each year from 2014 until 2023.
5. Once the number of marriages are projected, we used the equation shown in Chart 3 to project the number of applications in each year.

The results of this exercise are shown in Table 4. We expect the 2014 applications to be around 8,500, which grows to 11,813 by 2023. The growth rate of the number of applications is expected to slow down from 4.8% in 2015 to 2.9% by 2023. At this rate, the number of housing applications over the next 10 years will be 102,074.

| Year  | # of Marriages | # of Applications | % Growth in Applications |
|-------|----------------|-------------------|--------------------------|
| 2014  | 10,978         | 8,499             |                          |
| 2015  | 11,267         | 8,904             | 4.8%                     |
| 2016  | 11,547         | 9,296             | 4.4%                     |
| 2017  | 11,820         | 9,678             | 4.1%                     |
| 2018  | 12,089         | 10,054            | 3.9%                     |
| 2019  | 12,352         | 10,423            | 3.7%                     |
| 2020  | 12,611         | 10,786            | 3.5%                     |
| 2021  | 12,864         | 11,139            | 3.3%                     |
| 2022  | 13,109         | 11,482            | 3.1%                     |
| 2023  | 13,345         | 11,813            | 2.9%                     |
| Total | 121,981        | 102,074           |                          |

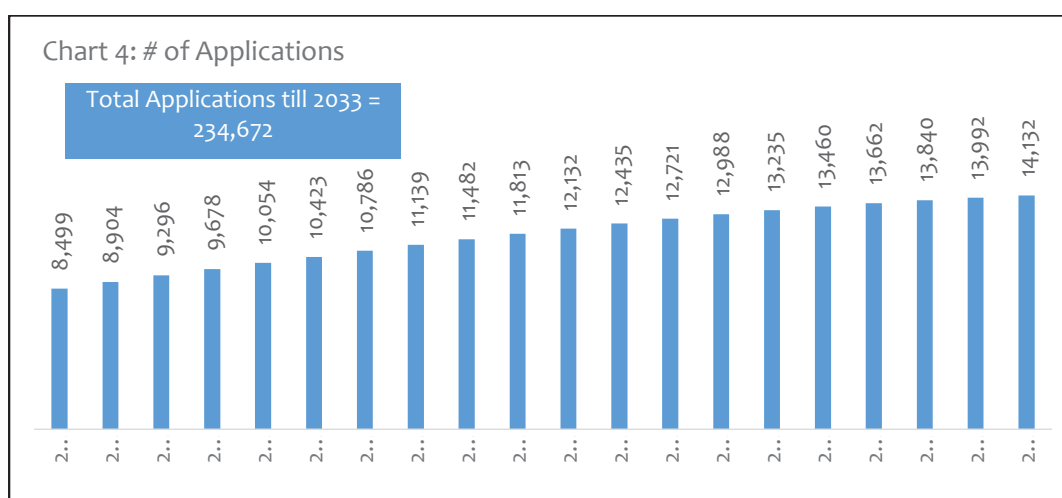
Source: Estimates based on PACI and CSB Data

The projections could not be made for a period longer than 10 years because several demographic variables may change over long durations and make the forecasting difficult. For example, the long-term forecasts require an assumption on the family size. The current family size of 4.9 might or might not hold over long durations.

However, Table 4 provides some clues that the housing applications are expected to increase with reducing growth rate. This is due to the base effect and may reflect the gradual reduction in family sizes.

Thus, we have used the trend of reducing growth rate to project the number of housing applications for another 10 years – from 2024 till 2033. The housing applications for the entire 20 years period are shown in Chart 4. We estimate that until 2033 – a period of 20 years – the total housing applications will be 234,672.

If we add the current pending applications of 108,288 in 2013, the total number of houses required over the next 20 years is 342,960.



Source: Estimates Based on PACI and PAHW Data

This is a very sizeable number and cannot be addressed through the current pace of housing supply. To put the numbers in perspective, Table 2 shows that the total private housing stock in Kuwait in 2013 as per the PACI data is 140,021. Thus, the requirement for new housing over the next 20 years is 245% of the entire existing stock created over several decades.

Kuwait requires 342,960 houses to be built for its citizens over the next 20 years. On average, the annual housing supply capacity should be more than 17,000, while currently it is just around 3,000 houses. Such steep increase in housing supply cannot be addressed without a holistic plan that considers all parts of the puzzle. In this report, we have addressed each aspect of a holistic plan.

# Chapter 3

Land Availability and New Areas



### Not Enough Vacant Private Housing Lands in the Popular Urban Areas

A latest research by Kuwait Real Estate Union shows that there are very few private housing land parcels vacant in the popular urban areas. The study released in July 2013 estimate the number of vacant private housing land parcels in 66 urban areas. The methodology of the report was as follows:

1. The exercise to estimate the number of vacant private residential land parcels started with using the Geographical Information System (GIS) website of Kuwait Municipality [www.gis1.Baladia.gov.kw](http://www.gis1.Baladia.gov.kw)
2. The Baladia GIS website shows the land parcel boundaries for all areas in Kuwait. For the study, all 6 governorates were divided into different areas /neighborhoods and each neighborhood into different blocks.
3. Areas / neighborhoods / blocks that are zoned as commercial, investment, industrial or agriculture were ignored for the study.
4. There are several areas, which are zoned as residential, but all land parcels have been recently supplied by the government. These areas are also ignored for the study.
5. Some areas / neighborhoods (or some blocks within) are purely residential areas where all properties are privately owned. Only these areas were identified and mapped for the purpose of the study. In total 66 areas were studied.
6. Once identified, the satellite images of these areas were taken from popular web based GIS applications such as Google Maps.
7. Vacant land areas on the satellite images were identified and the land parcel boundaries of only those were created by superimposing the Baladia GIS images where the land boundaries are available. All this exercise is done on ESRI Arc GIS software, which is one of the best GIS software in the world.

The findings of the study are shown in Table 6. In the 66 urban areas selected, there are around 119,616 private housing land parcels. Of this, there are 14,079 parcels vacant as on July 2013. The vacancy ratio is just 11.8%. Based on the combined area of all these land parcels, the vacancy ratio is 11.4%. As per the PACI data of total number of housing stock in Kuwait, these 66 urban areas account for just above 75% of the entire Kuwait market.

| Table 6: Estimates of Empty Private Housing Land Parcels in Kuwait |                  |
|--|------------------|
| Total Private Housing Parcels in Kuwait                            | 119,616          |
| Vacant Private Housing Land Parcels in Kuwait                      | 14,079           |
| Land Parcel Vacancy Ratio (Number Wise)                            | 11.80%           |
| Combined Area of all Private Housing Parcels                       | 60,528,208 sq.m. |
| Combined area of Vacant Land Parcels                               | 6,913,583 sq.m.  |
| Land Parcel Vacancy Ratio (Land Area Wise)                         | 11.40%           |
| Average Area of Vacant Land Parcels                                | 491 sq.m.        |

Source: Kuwait Real Estate Union

Note: The area of Khairan is not included in this study because it is far from the existing urban areas and is considered as a second home location

Clearly, the vacant land parcels are grossly insufficient to address the growing housing shortage, which as of 2013 is 108,288. The vacant private housing lands in each of these 66 urban locations are shown in table 7.

| Table 7: The Private Housing Lands and Vacant Lands in 66 Urban Areas in Kuwait |                               |                |                    |                               |                |
|---|-------------------------------|----------------|--------------------|-------------------------------|----------------|
| Area  | Total Private Housing Parcels | Vacant Parcels | Area               | Total Private Housing Parcels | Vacant Parcels |
| AbdullaAl-Salem   | 1,163                         | 27             | Khaldiya           | 821                           | 14             |
| AbuFtaira   | 3,106                         | 2,056          | Kifan              | 1,609                         | 35             |
| AbuHalifa   | 224                           | 9              | Mangaf             | 1,562                         | 119            |
| Adailiya  | 860                           | 2              | Mansouriya         | 403                           | 4              |
| Al-Qurain   | 2,620                         | -              | Messila            | 1,823                         | 1,516          |
| Al-Qusour   | 3,000                         | 2              | Mishrif            | 2,135                         | 61             |
| Andalous  | 2,617                         | 128            | MubarakAl-Abdullah | 955                           | 101            |
| Ardhiya   | 3,421                         | 58             | MubarakAl-Kabeer   | 3,456                         | 3              |
| Ashbeliah   | 1,739                         | 271            | Nuzha              | 752                           | 12             |
| Bayan   | 3,954                         | 490            | Omariya            | 1,103                         | 27             |
| CoastStripA   | 165                           | 28             | Qadsiya            | 1,113                         | 33             |
| CoastStripB   | 620                           | 231            | Qasr               | 1,690                         | 20             |
| CoastStripC   | 71                            | 21             | Qortuba            | 2,384                         | 109            |
| Daiya   | 763                           | 12             | Rabiya             | 1,085                         | 4              |
| Dasma   | 1,019                         | 13             | Rawda              | 1,645                         | 39             |
| Dhaher  | 2,486                         | 6              | Rehab              | 1,241                         | 4              |
| Doha  | 1,415                         | 4              | Riqqa              | 2,545                         | 162            |
| Egaila  | 1,943                         | 583            | Rumaiithiya        | 2,746                         | 18             |
| FahadAl-Ahmad   | 1,959                         | 7              | SabahAl-Nasser     | 2,079                         | 63             |
| Fahaheel  | 934                           | 174            | SabahAl-Salem      | 5,746                         | 27             |
| Faiha   | 1,041                         | 13             | Sabahiya           | 3,184                         | 98             |
| Farwaniya   | 812                           | 71             | Salam              | 2,839                         | 596            |
| Ferdous   | 3,563                         | 7              | Salwa              | 3,954                         | 130            |
| Fintas  | 170                           | 27             | Shaab              | 532                           | 14             |
| Fnaitees  | 2,357                         | 2,337          | Shamiya            | 836                           | 7              |
| Ghornata  | 607                           | 81             | Shuhada            | 1,559                         | 114            |
| Hadiya  | 1,493                         | 319            | Shuwaikh           | 309                           | 7              |
| Hitteen   | 1,978                         | 121            | Siddiq             | 2,656                         | 2,374          |
| JaberAl-Ali   | 2,877                         | 2              | Sulaibikhat        | 1,257                         | 17             |
| Jabriya   | 3,621                         | 128            | Surra              | 2,322                         | 51             |
| Jahra   | 1,225                         | 128            | UmmAl-Haiman       | 3,828                         | 37             |
| JleebAl-Shiyoukh  | 307                           | 34             | Yarmouk            | 1,389                         | 98             |
| Khaitan   | 890                           | 6              | Zahra              | 3,038                         | 769            |

Source: Kuwait Real Estate Union

As mentioned before in this report, till 2006 every year several hundred people used to cancel their housing application by buying a private housing land on their own and then drawing KD 70,000 from Savings and Credit Bank. With just 14,079 vacant land parcels left in the popular urban areas, the land became very expensive. Thus, the trend of citizens buying land on their own has stopped.

#### Government is Creating New Areas to Spread the Population

The government has master planned large scale housing supply in several areas. These are shown below:

Can we have a map of each of these locations to show with the number of houses?

1. Sabah Al-Ahmad – 2,201 houses
2. Mutlaa – 21,000 houses
3. North Mutlaa – 52,000 houses
4. North Sabahiya – 52,000 houses
5. Khairan – 35,000 houses
6. Sabahiya – 133 houses
7. Abu Halefa – 171 houses
8. Jaber Al Ahmed – 1,475 houses (70 apartments)
9. North West Sulaibikhat – 396 houses (310 apartments)
10. Wafra Extension – 2,686 houses
11. Wafra Existing – 370 houses

In total there are 167,432 potential houses available in the above mentioned locations. We note that the proposed houses in most of the new areas have 600 sq.m. plot area instead of 400 sq.m. plot area. The numbers show that nearly 95% of all the proposed new plots are 600 sq.m. in size and only 5% are 400 sq.m. in size.

The government has made a decision to increase the plot size to incentivize people to choose these areas that are considered somewhat away from the existing urban areas. However, we believe that this policy decision has some serious implications, which we have described in the next chapter.

# Chapter 4

Estimation of Average House Size in Kuwait, International Comparison and Implications on Government Subsidies

### Estimation of Average House Size in Kuwait

We saw in Table 6 that Kuwait Real Estate Union carried out a GIS based analysis of 66 urban areas in Kuwait where there are around 119,616 private housing land parcels. Nevertheless, some of the parcels were vacant and 105,537 parcels have a house on them. With the PACI data showing the 140,021 total houses in Kuwait, the Real Estate Union's survey covered 75% of the market. This sample represents the entire private housing market in Kuwait very well.

Table 8 shows the distribution of houses with their plot sizes; nearly 36.7% of the houses have area less than 400 sq.m. and 38.4% of the houses have 400-600 sq.m. plot area. These two categories account for three quarters of all the houses in Kuwait. We caution the reader that the shown areas are plot areas and not the built up areas.

We checked the average plot sizes in each range and these are mentioned in the table. The <400 sq.m. plot size category and the average house size there is 337 sq.m., for 400-600 sq.m. plot size category, the average plot size is 473 sq.m. and so on. The overall average of 105,537 land parcels is 506 sq.m.

| Table 8: Distribution of Houses in Kuwait with their Plot Size |             |         |                   |                      |                   |
|--|-------------|---------|-------------------|----------------------|-------------------|
| Plot Size Range  | # of Houses | % Share | Average Plot Size | BUA without Basement | BUA with Basement |
| <400 sq.m.   | 38,782      | 36.7%   | 337 Sq.m.         | 708 Sq.m.            | 1,045 Sq.m.       |
| 400-600 sq.m.  | 40,479      | 38.4%   | 473 Sq.m.         | 993 Sq.m.            | 1,466 Sq.m.       |
| 600-800 sq.m.  | 15,304      | 14.5%   | 702 Sq.m.         | 1,474 Sq.m.          | 2,176 Sq.m.       |
| 800-1,000 sq.m.  | 7,164       | 6.8%    | 891 Sq.m.         | 1,871 Sq.m.          | 2,762 Sq.m.       |
| 1,000-1,200 sq.m.  | 3,200       | 3.0%    | 1,059 Sq.m.       | 2,224 Sq.m.          | 3,283 Sq.m.       |
| 1,200-1,400 sq.m.  | 229         | 0.2%    | 1,287 Sq.m.       | 2,703 Sq.m.          | 3,990 Sq.m.       |
| 1,400-1,600 sq.m.  | 177         | 0.2%    | 1,497 Sq.m.       | 3,144 Sq.m.          | 4,641 Sq.m.       |
| 1,600-1,800 sq.m.  | 65          | 0.1%    | 1,696 Sq.m.       | 3,562 Sq.m.          | 5,258 Sq.m.       |
| 1,800-2,000 sq.m.  | 114         | 0.1%    | 1,952 Sq.m.       | 4,099 Sq.m.          | 6,051 Sq.m.       |
| >2,000 sq.m.   | 23          | 0.0%    | 2,345 Sq.m.       | 4,925 Sq.m.          | 7,270 Sq.m.       |
| GrandTotal   | 105,537     | 100%    | 506 Sq.m.         | 1,062 Sq.m.          | 1,569 Sq.m.       |

Source: Kuwait Real Estate Union

The FAR of private housing lands in Kuwait is 210% and 100% of basement area is permitted over and above this FAR. We expect that most houses fully consume the maximum FAR and the built up areas (BUA) of each category is estimated. The average house BUA in Kuwait is 1,062 sq.m. without the basement area and 1,569 sq.m. with the basement area.

We note that from the electricity and water consumption point of view, the basement area is generally utilized as the same type of living area as any other floor of the house.

### International Comparison of Average House Size and Home Ownership Ratios

In order to draw practical strategies to solve Kuwait's growing housing crisis, it is important to benchmark the housing market with other markets in the world. We have shown in Table 2 that there are currently 140,021 private houses in Kuwait amongst a total of 250,406 households or families. This means that the current home ownership ratio in Kuwait is 55.9%.

Table 9 shows a comparison of per capita nominal 2012 GDP in USD, home ownership ratios and average house sizes of various developed economies across the world. In the table, Kuwait is on 4<sup>th</sup> position on per capita GDP.

Almost all the Continental European countries have seen increase in the home ownership ratio between the year 2004-05 and 2011-13. Australia and Russia have also increased the home ownership ratio over this period. United States and United Kingdom are the two other countries with Kuwait that have witnessed significant drop in home ownership ratio over this period.

|                | Per Capita<br>2012 GDP<br>(Nominal \$) | Home<br>Ownership<br>2004-05 | Home<br>Ownership<br>2011-12 | Average<br>House<br>Sizes | House<br>Types |
|----------------|--|------------------------------|------------------------------|---------------------------|----------------|
| Australia      | 67,304                                 | 69.5%                        | 70.0%                        | 214 sq.m.                 | Houses         |
| Canada         | 52,300                                 | 68.9%                        | 69.0%                        | 181 sq.m.                 | Houses         |
| United States  | 51,704                                 | 68.7%                        | 65.4%                        | 221 sq.m.                 | Houses         |
| Kuwait         | 48,761                                 | 61.1%                        | 55.9%                        | 1,569 sq.m.               | Houses         |
| Netherlands    | 46,011                                 | 55.4%                        | 55.4%                        | 116 sq.m.                 | Apt            |
| Belgium        | 43,615                                 | 71.7%                        | 78.0%                        | 177 sq.m.                 | Houses         |
| Germany        | 41,866                                 | 41.0%                        | 59.0%                        | 109 sq.m.                 | Apt            |
| France         | 41,223                                 | 54.8%                        | 57.8%                        | 112 sq.m.                 | Apt            |
| United Kingdom | 39,161                                 | 70.7%                        | 64.0%                        | 76 sq.m.                  | Apt            |
| Italy          | 33,115                                 | 67.9%                        | 82.0%                        | 81 sq.m.                  | Apt            |
| Saudi Arabia   | 24,524                                 | 60.0%                        | 60.0%                        | NA                        |                |
| Bahrain        | 23,555                                 | NA                           | 59.3%                        | 220 sq.m.                 | Houses         |
| Russia         | 14,302                                 | 80.0%                        | 84.7%                        | 57 sq.m.                  | Apt            |
| Turkey         | 10,527                                 |                              | 60.0%                        | 45 - 146 sq.m.            | Apt            |

Source: Various National Statistical Agencies, IMF, World Bank, EuroStat and Nation Master

What is interesting to note in the table are the average house sizes. In all the countries, the average size of a house ranges from 57 sq.m. in Russia to 221 sq.m. in USA. In Bahrain where the average house size is 220 sq.m., the government is increasingly building apartments of 140-150 sq.m. sizes.

In Kuwait, the measure of average house size is 1,569 sq.m. as shown in Table 8. The PAHW provides a house with a built up area of 400 sq.m. to 480 sq.m. but the owner can extend this up to the maximum permissible FAR. The size of the house provided by the government itself is the largest in the list but the fact that it ends up nearly 400% bigger might very well be a case of living beyond the means.

Increasing the plot sizes in the new areas from 400 sq.m. to 600 sq.m. is going to skew the comparison further. If we assume that the government is to supply the required number of 342,960 new houses to Kuwaiti families over the next 20 years. Assuming that 95% of these new houses are 600 sq.m. plot and 5% are 400 sq.m. plot sizes, Table 10 below shows that 325,812 houses will be 600 sq.m. plot sizes with built up area of 1,860 sq.m. and 17,148 houses will be 400 sq.m. plot size with 1,240 sq.m. built up area. The average size of these new houses will be 1,829 sq.m.

| Plot Size | # of Houses | Estimated BUA |
|-----------|-------------|---------------|
| 600 Sq.m. | 325,812     | 1,860 Sq.m.   |
| 400 Sq.m. | 17,148      | 1,240 Sq.m.   |
| 590 Sq.m. | 342,960     | 1,829 Sq.m.   |

Source: Estimates Based on Municipality Regulations

There are serious implications of this for government subsidy structure. The large house size is responsible for a variety of subsidy drains on the exchequer including electricity, water, road infrastructure, etc.

### Estimates of the Total Subsidy per House

Table 11 shows the estimates of the government cost per houses broken down into various cost heads. The assumptions are as follows:

- ⇒ Since the land is not a direct cost for the government, we have assumed the cost as zero
- ⇒ PAHW has provided the information that the cost of internal infrastructure that includes civil work related to internal roads, drainage, water supply, electricity, etc. is KD 12,009 for an area planned with 400 sq.m. plots and KD 17,000 for an area planned with 600 sq.m. plot
- ⇒ Assuming the PAHW distributes the lands for various individuals to build their own homes, the Bank of Savings and Credit provides KD 70,000 loan to a citizen to build a house.
- ⇒ Further, the parliament has announced KD 30,000 subsidy for buying the building material
- ⇒ The officials in Ministry of Electricity and Water gave the information that it costs the government KD 70 per sq.m. of house built up area to provide a new electricity and water connection. Assuming 210% FAR and 100% basement areas as the total built up area, the cost for a 400 sq.m. plot is KD 86,800 and for 600 sq.m. plot is KD 130,200
- ⇒ Based on the study of a new area planned by PAHW, they estimate that the cost of providing the social infrastructure such as mosque, coops, schools, hospitals, police station, fire brigade, health center, youth club, etc. is KD 24,030. It is expected to remain the same regardless of the size of the plot
- ⇒ Finally, we have estimated that the cost of providing the major infrastructure such as highways, flyover, effluent treatment plant, etc. is KD 30,000 per house. We note that this number is not based on government figures

Combining all these direct costs, the cost per house for the government on a 400 sq.m. plot is KD 252,839 and on a 600 sq.m. plot is KD 301,230.

| Cost Head                        | Agency Responsible                    | Amount for 400 Land Plot | Amount for 600 Land Plot |
|----------------------------------|---------------------------------------|--------------------------|--------------------------|
| Land                             | PAHW                                  | -                        | -                        |
| Internal Infrastructure          | PAHW <sup>1</sup>                     | KD 12,009                | KD 17,000                |
| Financing for Home Construction  | Savings & Credit Bank                 | KD 70,000                | KD 70,000                |
| Subsidy to Buy Building Material | Ministry of Commerce                  | KD 30,000                | KD 30,000                |
| Electricity & Water Connection   | Ministry of Public Works <sup>2</sup> | KD 86,800                | KD 130,200               |
| Social Infrastructure            | PAHW <sup>3</sup>                     | KD 24,030                | KD 24,030                |
| Major Infrastructure             | Ministry of Public Works <sup>4</sup> | KD 30,000                | KD 30,000                |
| <b>Total</b>                     |                                       | <b>KD 252,839</b>        | <b>KD 301,230</b>        |

1 – Data provided by PAHW

2 – Data provided by the Ministry of Electricity and Water

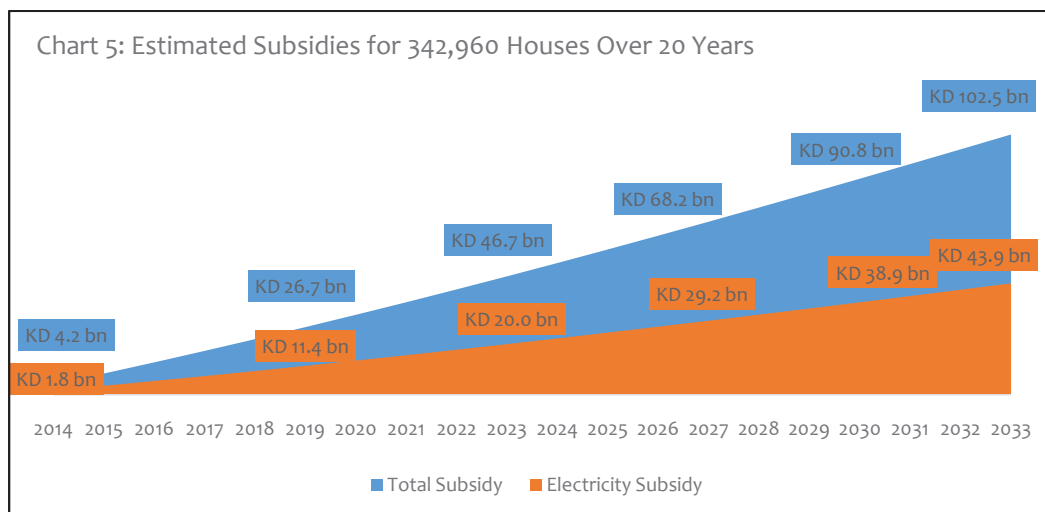
3 – Data provided by PAHW

4 - Assumption based on broad discussions

### What is the Cost of Providing 342,960 Houses over 20 Years?

Using the numbers shown above in Table 11 and assuming that all 342,960 houses of which 95% are 600 sq.m. plot sizes and 5% are 400 sq.m. sizes and all these houses are to be provided over the next 20 years, we have shown the estimates of total cost in Chart 5.

1. Assuming a uniformly growing supply rate to provide 342,960 houses over the next 20 years, the total subsidy in 2014 is estimated at KD 4.2 billion of which KD 1.8 billion is the subsidy for the provision of electricity and water connection.
2. The total cost adds up to KD 102.5 billion over 20 years of which KD 43.9 is the accounted for by the electricity and water connection alone.
3. We note that these estimates do not factor in any cost inflation, which could easily be around 2-3% per annum. If the inflation is factored in, the cost could well be in excess of KD 125 billion.



Source: Estimates Based on Numbers from Various Government Agencies

The subsidies don't stop there. Ministry estimates show that the cost of electricity production in Kuwait is just above 41 fils but it is supplied at just 2 fils. Similarly, the cost of water production per thousand gallon is KD 11.626 but it is sold for KD 0.8 per thousand gallon. The combined subsidy for this for the year 2012-13 was KD 3.624 billion.

Of this, nearly 48% share is for the private housing and the remaining is for investment buildings, industries, commercial, government, etc. Thus, the private houses received KD 1.739 billion of electricity and water subsidy in the year 2012-13. Given that there are 140,021 private houses, the annual subsidy per house is KD 12,423 per year.

Ministry of Electricity & Water sources have confirmed to us that currently the annual subsidy for the provision of cheaper electricity and water is KD 10 per sq.m. of private housing built up area. Based on all the estimates made in this report, the scenario of total subsidy bill and its share in the oil revenue is shown in Table 12.

1. Similar to the assumptions made for Chart 5, it is assumed that all 342,960 required houses are supplied over the next 20 years with uniformly increasing pace.
2. As per the current government policy, it is assumed that 95% of the new houses will have 600 sq.m. plot and 5% will have 400 sq.m. plot. The FAR of all these houses is as per the current municipal regulations of 210% above ground and 100% basement.



3. The second column shows the total cost of building 342,960 houses, which will add up to KD 102.5 billion over 20 years.
4. The third column shows the cost of annual electricity and water subsidy bill for private houses, which adds up to KD 97.0 billion.
5. The fourth column shows the cost of annual electricity and water subsidy for all sectors of the country (including private houses) by assuming that the private houses maintain their 48% share. This adds up to KD 202.0 billion.
6. The oil revenue is projected based on 3.5 million barrels daily production and international price of USD 100 per barrel for the crude oil. The oil revenue adds up to KD 721.8 billion.
7. The percentage share of housing provisions and electricity and water subsidy to all sectors of the economy takes up around 23% share in 2014 that is expected to grow to 62.4% by 2033.
8. Over the entire period of 20 years, this share is 42.2% of the cumulative oil revenue.

**Table 12: Estimates of % of Oil Revenue Required to Build Houses and Provide Subsidized Electricity and Water to All Sectors**

| Year  | Total Cost of Building Houses | Cost of Electricity & Water Subsidy for Private Houses | Cost of Electricity & Water Subsidy for all Sectors | Oil Revenue with 3.5 BPD @USD 100 per barrel | % Share of Oil Revenue Taken by Housing Provisions and Electricity and Water Subsidies |
|-------|-------------------------------|--|---|--|--|
| 2014  | KD 4.2 bn                     | KD 2.0 bn  | KD 4.2 bn   | KD 36.1 bn                                   | 23.0%  |
| 2015  | KD 4.3 bn                     | KD 2.3 bn  | KD 4.7 bn   | KD 36.1 bn                                   | 24.9%  |
| 2016  | KD 4.4 bn                     | KD 2.5 bn  | KD 5.3 bn   | KD 36.1 bn                                   | 26.8%  |
| 2017  | KD 4.5 bn                     | KD 2.8 bn  | KD 5.8 bn   | KD 36.1 bn                                   | 28.7%  |
| 2018  | KD 4.6 bn                     | KD 3.1 bn  | KD 6.4 bn   | KD 36.1 bn                                   | 30.6%  |
| 2019  | KD 4.7 bn                     | KD 3.4 bn  | KD 7.0 bn   | KD 36.1 bn                                   | 32.6%  |
| 2020  | KD 4.8 bn                     | KD 3.7 bn  | KD 7.6 bn   | KD 36.1 bn                                   | 34.6%  |
| 2021  | KD 4.9 bn                     | KD 4.0 bn  | KD 8.3 bn   | KD 36.1 bn                                   | 36.6%  |
| 2022  | KD 5.0 bn                     | KD 4.3 bn  | KD 8.9 bn   | KD 36.1 bn                                   | 38.7%  |
| 2023  | KD 5.1 bn                     | KD 4.6 bn  | KD 9.6 bn   | KD 36.1 bn                                   | 40.8%  |
| 2024  | KD 5.2 bn                     | KD 4.9 bn  | KD 10.2 bn  | KD 36.1 bn                                   | 42.9%  |
| 2025  | KD 5.3 bn                     | KD 5.2 bn  | KD 10.9 bn  | KD 36.1 bn                                   | 45.1%  |
| 2026  | KD 5.4 bn                     | KD 5.6 bn  | KD 11.6 bn  | KD 36.1 bn                                   | 47.2%  |
| 2027  | KD 5.5 bn                     | KD 5.9 bn  | KD 12.3 bn  | KD 36.1 bn                                   | 49.4%  |
| 2028  | KD 5.6 bn                     | KD 6.3 bn  | KD 13.0 bn  | KD 36.1 bn                                   | 51.5%  |
| 2029  | KD 5.6 bn                     | KD 6.6 bn  | KD 13.7 bn  | KD 36.1 bn                                   | 53.7%  |
| 2030  | KD 5.7 bn                     | KD 6.9 bn  | KD 14.5 bn  | KD 36.1 bn                                   | 55.9%  |
| 2031  | KD 5.8 bn                     | KD 7.3 bn  | KD 15.2 bn  | KD 36.1 bn                                   | 58.1%  |
| 2032  | KD 5.8 bn                     | KD 7.7 bn  | KD 15.9 bn  | KD 36.1 bn                                   | 60.3%  |
| 2033  | KD 5.8 bn                     | KD 8.0 bn  | KD 16.7 bn  | KD 36.1 bn                                   | 62.4%  |
| Total | KD 102.5 bn                   | KD 97.0 bn   | KD 202.0 bn   | KD 721.8 bn                                  | 42.2%  |

Sources: Estimates Based on Projections in this Report

This clearly presents a scenario where the government budget is unsustainable because there is not enough room left for the government salaries, defense expenditure, social welfare, etc. after the cost of providing the house and subsidies related to electricity and water consumption.

Under such a scenario, the government will be forced to sacrifice various expenditure heads and the housing provisions may fall well short thereby continuing the housing crisis in Kuwait.

We are proposing a number of solutions keeping in mind these factors. There are some ~~mediumshort~~ term solutions and there are long terms solutions that can effectively tackle the housing crisis but keep the subsidy burden under control.

The ~~mediumshort~~ term and the long term solutions both require changes in a number of laws related to property ownership, private mortgage, resident associations, etc. All these legal changes are proposed together in a later chapter in this report.

# Chapter 5

Suggested [Medium Short](#) Term Solutions and Required Changes in Legal Structure

### **Suggested ~~Short~~-Medium Term Housing Strategy to Create Multiple Channels of Housing Supply**

The ~~medium short~~-term housing strategy is developed with two-pronged approaches:

1. Create additional houses from the existing houses due to their large sizes.
2. Create a spurt of housing supply on government lands within the existing urban areas.

There are a number of changes required in the legal, executive and municipal rules in order to achieve the proposed strategy. However, we believe that the suggested strategy provides a practical solution without actually sacrificing citizen's quality of life.

#### **~~Medium Short~~-Term Strategy 1: Mechanism for Creation of Additional Houses from the Existing Houses**

We saw in Table 9 that the average house BUA in Kuwait is 1,569 sq.m. By any international comparison, these are equal to multiple houses. Thus, we recommend creating a framework whereby an existing house can be subdivided into multiple houses if the owner chooses to do so. The owner can sell such a subdivided house to an applicant in the housing waiting list. We propose a few basic restrictions on such transactions in order to ensure that it does not lead to speculation in the market and the structure works well.

We emphasize here that this is an optional arrangement and any sub-division of a house takes place only if the owner of the house decides to do so. We suggest a formula with the following limitations:

1. A subdivision can only be done for a full floor of a house. The minimum built up area of the floor could be 200 – 350 sq.m. and the exact point could be determined by a complete study from the municipality.
2. The ownership of the basement to always remain with the ownership of the ground floor to avoid any conflict with the municipal regulations.
3. We suggest that the sale of subdivided houses should only be permitted to a buyer who is part of the pending housing application list.
4. There should be a minimum lock-in period of 3 years for the new buyer before it is allowed to sell the subdivided house. This is to prevent speculations of the newly created houses in the market.
5. The buyer shall be able to take the KD 70,000 from the Savings & Credit Bank to buy this house. If there is excess amount required, the buyer can take a second mortgage from a private bank.
6. We propose that the government lets the market determine the prices of the newly created subdivided houses. The process of valuation is already well established in Kuwait and all the houses going for transactions are valued by the financial institutions through professional valuers. The same process can be adopted to value a newly created house.
7. The government must make it mandatory to create a resident association for any house with multiple ownership. The registration of a new house must only be completed with the registration of owners' association. There should be clearly laid down regulations for the monthly common area maintenance charges to be paid by each of the owners. A complete study in this regard should be conducted by the municipality to lay down rules for common area maintenance charges.

#### **How Many Houses this Strategy can Provide?**

We know that there are 140,021 existing houses in Kuwait. Using the percentage share to segregate 140,021 houses across all Kuwait (as per PACI data) and assuming that 25% of the existing home owners opt for subdivision, we estimate that it can provide extra 35,010 houses from the existing houses over the next 5-10 years. The calculations are shown in Table 13 below.

In most cases, these subdivided houses will be sold to family and kin like father selling to son or to daughter. We checked with banking sources about the number of houses that do not have any outstanding financing. It is estimated that nearly 90,000 out of a total of 140,021(64%) do not have any financing against them. Thus, the market has adequate supply of houses for subdivision.

| Table 13: Potential of New Houses by Subdivision of Existing Houses |               |                        |                                       |
|---|---------------|------------------------|---------------------------------------|
| Plot Size Range   | No. of Houses | Estimated Subdivisions | Potential New Houses @ 25% Conversion |
| <400 sq.m.  | 51,454        | 2                      | 12,864                                |
| 400-600 sq.m.   | 53,705        | 2                      | 13,427                                |
| 600-800 sq.m.   | 20,305        | 2                      | 5,077                                 |
| 800-1,000 sq.m.   | 9,505         | 2                      | 2,377                                 |
| 1,000-1,200 sq.m.   | 4,246         | 2                      | 1,062                                 |
| 1,200-1,400 sq.m.   | 304           | 2                      | 76                                    |
| 1,400-1,600 sq.m.   | 235           | 2                      | 59                                    |
| 1,600-1,800 sq.m.   | 86            | 2                      | 22                                    |
| 1,800-2,000 sq.m.   | 151           | 2                      | 38                                    |
| >2,000 sq.m.  | 31            | 2                      | 8                                     |
| Grand Total   | 140,021       |                        | 35,010                                |

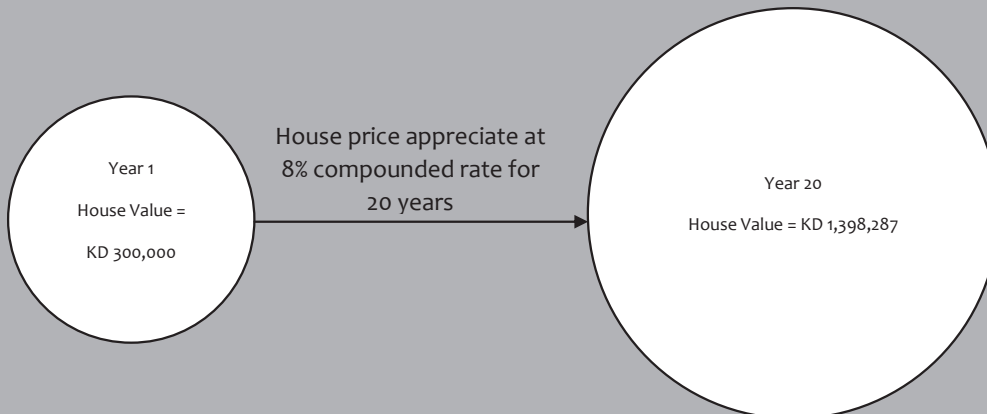
Source: Estimates of Real Estate Union

The subdivision of existing houses means that there will be little additional electricity and water consumption in these units. This will bring down the government annual electricity subsidy bill per house. There will be additional infrastructure required for providing electricity and water meter for every house but this extra expenditure is insignificant compared to the amount required to provide a new electricity and water connection.

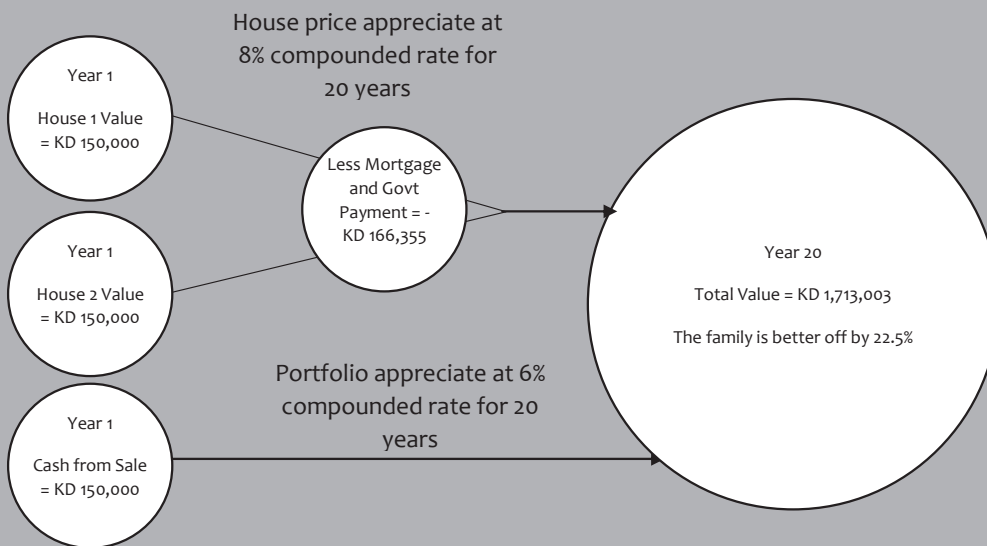
For all practical purposes, the cost of providing an extra house through this strategy is zero for the government.

### Creating Multiple Houses from Existing House Leads to Capital Gains for a Family

We have done a mock exercise to demonstrate that splitting the houses actually leads to substantial wealth creation for Kuwaiti families. The diagram below shows the two cases. In the first case there is a house, which appreciates at 8% per annum. This rate is very reasonable for international standards and the houses in Kuwait have actually appreciated at a much faster rate over the last 10 years. Compounded over 20 years, the house value will become nearly KD 1.4 million.



In the second case, the house is split into two equal houses and let us assume that the father sells the house to his son. After the split each house is valued at KD 150,000



### Medium Short Term Strategy 2: Create a New Zoning of High Rise Apartments on the Government Land in Existing Urban Areas

There is a small but growing market of freehold apartments in Kuwait where Kuwaiti nationals are buying apartments in investment buildings. This is because the waiting period for a government house is too long and buying a house is very expensive. Almost all of these projects are being

developed in existing urban areas because several Kuwaiti families do not want to live away from the city.

This gives market clue that a number of Kuwaiti families may be interested in accepting apartments as a housing solution provided that these are made with a minimum area and these are located within the urban areas.

1. We propose that the government should create a new zoning of Private Housing - B10 in the existing urban areas for its own lands.
2. On these lands the government should develop 10 storey apartment buildings with one unit on each floor.
3. Each of these units can be 2300-3400 sq.m. size with 3-45 bedrooms, living room, maid rooms, etc. The municipality should carry out a detailed study to establish a need based formula.
4. Each apartments must get minimum 3 covered car parks on either the basement or the podium.
5. These apartments can be sold to applicants with KD 70,000 from Savings and Credit Bank.
6. We want to make it clear that as a first preference, Kuwaiti citizens do not prefer taking apartments. However, since the waiting period of houses has become nearly 20 years and growing, this strategy might be attractive for those who prefer a quick housing solution.
7. The resident association must be compulsory for these developments with municipality specifying the monthly payment for the owners for common area maintenance.
8. This strategy might be very suitable for Khaitan area, which is very close part of the existing urban areas and is liked by many Kuwaiti citizens. Thus, large size apartments in Khaitan might attract several housing applicants.

#### Very Little Risk for the Government in this Strategy

This strategy has very little risk for the government because if the apartments units do not find enough takers, the government can always lease them very easily. Real Estate Union carry out a yearly research on the investment properties in Kuwait and the market numbers are shown in Table 14 below.

1. A field research of nearly 90,000 apartments in Kuwait shows that the investment properties segment in Kuwait has 95.5% occupancy ratio.
2. The monthly rentals are increasing and there is very limited new supply in the market to change this situation over the next 3-5 years.

|                                     | Q4 2010  | Q3 2011  | Q2 2013  |
|-------------------------------------|----------|----------|----------|
| No of Functional Properties Covered | 2,534    | 2,927    | 4,136    |
| No of Functional Apartments Covered | 60,463   | 70,169   | 89,098   |
| Vacant Apartments                   | 3,628    | 3,987    | 4,047    |
| Observed Occupancy Ratio            | 94.0%    | 94.3%    | 95.5%    |
| Average Monthly Rent                | KD 235.4 | KD 254.4 | KD 264.2 |

Source: Al Murshid Al Aqari Q2, 2013 (Real Estate Union)

Clearly, with such good occupancy ratios, the government will find it easy to rent the apartments if these are not sold to the housing applicants. By leasing the unsold units, the government can generate between 6-7% returns on their investment. With such yields, the government can always sell these units to real estate investors who look for rental income.

### The Strategy Offers Great Advantages for Cost Saving

We believe that the strategy of providing apartments in existing urban areas offers great cost savings for the government. We have estimated the costs in Table 15 below.

- ⇒ The cost of land is taken as zero as in all other cases because the land is already owned by the government.
- ⇒ Assuming 300 sq.m. apartments with 3 parking for each unit, we estimate that the cost per apartment will be KD 70,800. This is with a cost of construction of KD 160 per sq.m. for a typical floor and KD 120 per sq.m. for a parking floor
- ⇒ We note that this construction cost is equal to the financing available from Savings and Credit Bank
- ⇒ Given the built up area of 300 sq.m., the cost of electricity and water connection will be KD 21,000 only
- ⇒ With the developments proposed only in the existing urban areas, the cost of internal infrastructure, major infrastructure and social infrastructure will be zero as these are already available in existing urban areas
- ⇒ The total cost of such apartments will be KD 91,800 only

| Table 15: Cost of Constructing 300 sq.m. Apartments in Existing Urban Areas |                          |                                     |
|---|--------------------------|-------------------------------------|
| Land  | PAHW                     | Cost of Apartment of 300 sq.m. Area |
| Internal Infrastructure   | PAHW                     | -                                   |
| Cost of Construction  | PAHW                     | KD 70,800                           |
| Subsidy for Building Material   | Ministry of Commerce     | -                                   |
| Electricity & Water Connection  | Ministry of Public Works | KD 21,000                           |
| Social Infrastructure   | PAHW                     | -                                   |
| Major Infrastructure  | Ministry of Public Works | -                                   |
| Total   |                          | KD 91,800                           |

Source: Estimates

### The Government Should Target 25,000 Units through This Strategy over the Next 10 years

We estimate that with 60% footprint area permitted for a building and 80% floor efficiency, the government needs 1,562,500 sq.m. land in the existing urban areas to develop 25,000 units over the next 10 years, which we believe is achievable. [We estimate that nearly 500,000 sq.m. area is already available with the government in Khaitan. Thus, the government needs to find another 1 million sq.m. area to make this strategy achieve its target.](#)

The government can start with a few projects in some of the areas to test the market and take the strategy forward based on the success of these projects. As explained before, the risk in this strategy is minimum because any unsold units can be easily leased in the market to generate stable rental income.



**For the MediumShort Term Strategies, Convert half of KD 70,000 from Credit to Grant to Incentivize People**

As an added incentive to the buyers using either of the two mediumshort-term strategies, we propose that instead of offering subsidies in any other manner, the government should consider converting half of KD 70,000 from the Savings and Credit Bank as one time grant. In other words, KD 35,000 should be given to a home buyer as a onetime grant and the remaining KD 35,000 should remain a credit that is to be paid back in equal installments.

The information from Savings and Credit Bank shows the current installment structure and its tenure in Table 16. We note that in the current market conditions, most buyers draw the full amount of KD 70,000, which attracts a monthly installment of KD 100 or 10% of monthly salary, whichever is higher.

| Contract Value (KD) |        | Monthly Installments<br>KD                           | No. of Installment |     | Maximum Number of years |
|---------------------|--------|--|--------------------|-----|-------------------------|
| from                | to     |  | from               | to  |                         |
| 1                   | 10,000 | 60   | 1                  | 167 | 14                      |
| 10,001              | 20,000 | 70   | 143                | 286 | 24                      |
| 20,001              | 25,000 | 85   | 236                | 295 | 25.5                    |
| 25,001              | 30,000 | 100  | 250                | 300 | 25                      |
| Above 30,000        |        | 100 or 10% of the total salary, whichever is greater |                    |     |                         |

Source: Savings and Credit Bank

We reckon that given many of the buyers are getting their homes by the age of 40 yrs. +, many of them are not repaying the full amount over their lifetime. Therefore, converting the KD 35,000 from credit to grant will not make much financial difference to the government.

However, this might encourage the housing applicant to consider buying a part of an existing housing as per the first mediumshort-term strategy or accept an apartment in existing urban areas as per the second mediumshort-term strategy.

In addition, both the strategies offer homes in the existing urban areas, which is a big plus point for most of the prospective home buyers. These two mediumshort-term strategies can give up to 60,000 units over the next 10 years; all within the existing urban areas.

# Chapter 6

Suggested Long Term Strategies and Required Amendments in Laws

For the long terms strategy, we again suggest a two-pronged approach; both of which are inter-related. Both approaches call for two critical changes in the current strategy in order to rationalize the subsidies and solve the housing crisis.

#### **All Housing Plots to be 400 sq.m.**

We have mentioned before that most of the housing plots in the new areas are planned with 600 sq.m. plot sizes. We have also shown that the average houses in Kuwait are very large and there is no case to increase the size further. Therefore, we propose that all the news areas should be developed with only 400 sq.m. plots.

Table 17 shows what happens when housing plots in all the new areas are converted to 400 sq.m. We note that the 600 sq.m. plots are only proposed in Mutlaa, North Mutlaa, North Sabahiya and Khairan areas. Plots in all other areas are already 400 sq.m. as these are closer to the existing urban areas.

|                        | # of House Plots with 95% as 600 sq.m. and 5% as 400 sq.m. | # of House Plots with only 400 sq.m. plots |
|------------------------|--|--|
| Sabah Al Ahmed         | 2,201  | 2,201                                      |
| Mutlaa                 | 21,000   | 33,600                                     |
| North Mutlaa           | 52,000   | 83,200                                     |
| North Sabahiya         | 52,000   | 83,200                                     |
| Khairan                | 35,000   | 56,000                                     |
| Sabahiya               | 133  | 133  |
| Abu Halefa             | 171  | 171  |
| Jaber Al Ahmed         | 1,475  | 1,475                                      |
| North West Sulaibikhat | 396  | 396  |
| Wafra Extension        | 2,686  | 2,686                                      |
| Wafra Existing         | 370  | 370  |
|                        | 167,432  | 263,432                                    |

Source: Estimates Based on PAHW Data

If all plots are converted to 400 sq.m. the government will have 263,432 land parcels instead of 167,432 land parcels. Combined with the projected supply of 60,000 through the [medium-short](#) term strategies mentioned in the previous chapter, the potential housing supply can be 323,432.

With the total projected demand at 342,960, the potential supply already covers 94.3% of the demand. If the government plans just one new area with 19,528 plots, the whole of the demand of the next 20 years can be easily met.

#### **Built Up Area should be Restricted to 150% Including the Basement Area**

The second critical change suggested is that the government should reduce the FAR of the new housing areas to be 150% of the plot size including the basement area. This will restrict the house sizes to 600 sq.m. which will bring down the cost of electricity and water connection and also the annual subsidy of the electricity and water consumption.

We have explained the combined effect of all these suggested strategies on the total subsidy cost and its share in the oil revenue later in this chapter. However, with the two critical changes explained, we first describe the long term housing supply strategies.

### **Long-Term Strategy 1: Government Should Auction Plots to Individuals to Build House on their Own**

The government should master plan all the areas shown in Table 17 and provide the major infrastructure, internal infrastructure, etc. Post this, the government should auction 400 sq.m. plots to individuals at a price between KD 25,000 and KD 40,000. The price can be determined by the factors such as proximity of the location to the existing urban areas and the demand from the consumers. This strategy is suggested keeping in mind the individuals who prefer to construct their own house.

[We note that the PAHW statistics show that between 1985 and 2005, the total number of new housing applications were 46,433 and the total number of cancellations were 30,218. It was very common for the citizens to buy a housing plot from the market and then approach the Savings and Credit Bank for construction financing.](#)

The individuals can buy these plots with a small savings and a private mortgage. Calculations show that if an individual pays KD 10,000 as down payment from savings, at 5.5% mortgage rate over 25 years, KD 15,000 will attract a monthly installment of KD 92 and KD 30,000 will attract a monthly installment of KD 184. We believe these are very affordable for most Kuwaiti families.

The financial market can offer them innovative mortgage structures where the installments can be even lower in the first few years and higher in the later years. This will make it more suitable for the young Kuwaiti nationals who join the job market with lower salaries but get rapid increments as they gain experience.

Once a plot is bought from the government, these individuals can take KD 70,000 from the Savings and Credit Bank to build their houses. We estimate that the combined installment for the two credits will be between KD 250 to KD 350, which is very affordable.

Given that we propose to cap the FAR to 150% including the basement, citizens will be able to construct around 300-400 sq.m. area with KD 70,000 in the beginning. Once they have more money at their disposal, they will be able to extend the house area to the maximum of 600 sq.m.

### **Long-Term Strategy 2: Involve Private Sector Real Estate Companies to Develop Housing Projects with Revenue Sharing Arrangement with the Government**

In addition to solving the housing crisis in Kuwait, another key objective of the housing strategy is to involve and develop Kuwaiti real estate companies. We believe it is practically infeasible to expect the PAHW to ramp up the housing supply on its own due to the massive amount of work required in managing multiple projects.

Therefore, we propose that the government involves private sector developers in housing projects. The model for the involvement should be simple and in line with the previous long-term strategy where the government auctions the plots to individuals for a pre-determined price. Our suggestions are as follows:

1. The government can auction master planned plots of 100 houses to private sector real estate companies with the entire internal infrastructure.
2. Each of these plots should be 400 sq.m, which is the same size as we proposed for the entire government housing program.
3. The price of these plots should be the same as the price set for auctioning the plots to individuals.

4. In practice, for each area the government can demarcate the zones for auction to individuals and to private real estate companies.
5. For the private sector companies, the government should limit the number of plots to 100 in the initial period. Once the scheme runs successfully, the limit can be increased.
6. The government should lay down the rules that the private sector companies should buy these plots entirely on their equity capital and no financing should be permitted for the purchase of the land. This is important to prevent speculation.
7. The government shall set up a single window mechanism to fast track the project approval process. We have explained this part in more details in the next chapter.
8. The private sector companies should be required to construct 350 sq.m. on these plots with the building material specifications and layout guidelines laid down by the government.
9. The private sector companies should be asked to sell these houses for a maximum price of KD 70,000 + the price of individual plots. So in case of areas where the individual plots are priced at KD 25,000, the private companies can sell at a maximum price of KD 95,000 and for the areas where a plot is priced at KD 40,000, the private companies can sell the houses for a maximum price of KD 110,000.
10. Applicants can buy these houses using the same method as suggested in the long-term strategy 1. They can use KD 70,000 from Savings and Credit Bank, use around KD 10,000 from personal savings and raise a private mortgage for the remaining amount.
11. Rules should be laid down to permit the initiation of sale only after completion of 25-30% of the construction work.
12. The payment to the seller from the Savings and Credit Bank and from the private mortgage provider should be linked to the progress in the construction work, which is in line with the international best practices.
13. All payments should be made to an escrow account so that the money can only be used towards the payment of the construction cost of the project. All these suggestions are detailed further in a later chapter.
14. The government can look to optimize the risk of unsold units for the private sector companies by extending a guarantee to buy the houses after a certain time period.

We believe that this arrangement will be very attractive for the private sector real estate companies as their equity capital involvement is very limited beyond the purchase of the land from the government. They can raise some project financing for the construction and a significant part can be financed through the construction linked payment from Savings and Credit Bank and private mortgage provider.

We have created a mock project model of 100 houses where the plot price is KD 25,000 and thus, the house sale price is KD 95,000. Table 18 shows that the total project cost of this development is KD 8.31 million. The construction cost is assumed @ KD 150 per sq.m. and project management cost is 3% of the construction cost. These assumptions are in line with the market trends.

The project is assumed to have initial 6 months of planning and permission period and 12 months of construction period. Thus, the entire project can be completed in one and half years. Project financing is assumed @ 5.5%, which we believe will be possible if the government decided to capitalize the banks with low cost funding.

| Table 18: Project Cost for 100 House Development |              |
|--|--------------|
| Project Cost                                     | KD 8,311,875 |
| Land Value                                       | KD 2,500,000 |
| Design and Permission                            | KD 50,000    |
| Construction                                     | KD 5,250,000 |
| Engineering & Project Management                 | KD 157,500   |
| Paving and landscaping                           | KD 100,000   |
| Financing Charges @ 5.5% Rate                    | KD 254,375   |

Source: Estimates

We have estimated the returns of such project in Table 19. The project generates total sales of KD 9.5 million @ KD 95,000 per house. We have budgeted for 2% of sales towards commissions and marketing expenses. Thus, the net sales is KD 9.31 million. We have started the sales from 12<sup>th</sup> month, which is 6 months after the construction starts and completed the sales process with the end of the construction in 18<sup>th</sup> month. Given the number of housing applicants, this should not be a difficult sales pace to achieve.

The project has a peak negative cash flow of KD 5.38 million, which is funded through KD 2.5 million towards the land payment via equity and KD 3.0 million of project financing. This structure is sufficient to cover the entire project funding requirement.

In such a scenario, the project IRR is very healthy at 20.1% and the return on equity for the private sector real estate company is 28.2%. The company can make nearly KD 1.0 million of profit on a total equity involvement of KD 2.5 million for 18 months.

| Table 19: Sales and Returns of a Project with 100 Houses |               |
|--|---------------|
| Gross Sales  | KD 9,500,000  |
| Sales Commission & Marketing @ 2%                        | KD 190,000    |
| Net Sales Revenue  | KD 9,310,000  |
| Project Profit   | KD 998,125    |
| Project IRR  | 20.1%         |
| Return on Equity   | 28.2%         |
| Peak Negative Cash Flow                                  | -KD 5,386,250 |
| Project Financing  | KD 3,000,000  |
| Project Equity   | KD 2,500,000  |

Source: Estimates

We believe this is a very effective method to involve private real estate companies in the development of housing supply. Kuwait has scores of good private real estate companies who are searching for good real estate opportunities and to contribute towards solving the housing crisis in Kuwait.

With the involvement of the private sector companies, the government can achieve supply of 10,000 to 15,000 houses every year in the first few years and the supply can be increased further in the later stages.

As suggested before, the government can extend a guarantee to buy the units from the private developers in case some units remain unsold at completion. We note here that the private companies can always sell the houses by reducing the price by KD 5,000 in the market in cases of less than expected sale. However, given the number of pending housing application and their yearly growth, a scenario where units are left unsold appears unlikely.

# Chapter 7

Required Amendments in Laws

The suggested housing strategies requires changes in many laws and regulations to unchain the market potential. In this chapter, we provide a brief description of changes required in each of these. A word of caution before we begin – a detailed description of the law is beyond the scope of this report and almost all changes requires adequate due diligence by legal experts. In this report, we list the required changes and provide a brief description of them. A complete list of required changes is as follows:

1. Revisions of development control laws, Floor Area Ratios, Private Housing Zoning, etc.
2. Enable private sector participation in housing project development.
3. Develop an efficient framework to address speedy permissions.
4. Regulations for buyers' protection such as role of escrow accounts for payments, control on house sale timing, etc.
5. Create a framework to provide access for construction financing / project financing for private developers.
6. Bankruptcy laws and transparent mechanism for foreclosures in the event of default.
7. Legalization of ownership of multiple properties build on land with one title deed.
8. Laws related to owners' association and their roles and responsibilities.
9. Introduce mortgage financing laws to enable qualified consumers to buy properties.
10. Associated laws related to foreclosure of properties in the event of default and property auction mechanism.

We believe that because of the changes suggested above, there might be several more related laws that may require adjustment. The government should set up various committees to provide the complete recommendations on each of these issues. Each of these changes may require participation of multiple government departments. In the coming sections, we provide a brief description of these changes and list down the government departments whose participation is required.

### **Suggested Changes in the Municipality Regulations**

#### **1. Revisions of Municipality's Development Control Laws**

As per the current development control regulations, all private housing land parcels in Kuwait have a standard FAR of 210%. Basement up to 100% of the land area is permitted and is not included in the calculation of FAR. As suggested in the previous chapter, all the new houses developed on areas master planned by PAHW should have FAR of just 150% including the basement area. The change in the law will result into the private housing having two zonings in Kuwait. The existing urban areas will continue to have 210% zoning and the new areas will emerge with 150% FAR zoning.



## **Suggested Changes in the Law 8 and 9 and Efficiency in Municipality Permission Process**

- 2. Enable private sector participation in housing project development.**
- 3. Develop an efficient framework to address speedy permissions.**
- 4. Regulations for buyers' protection such as role of escrow accounts for payments, control on house sale timing, etc.**

In order to enable private sector participation in housing projects, the current Law 8 and 9 are to be abolished that prohibit ownership of private housing land by a company. The government is unable to meet the rapidly growing requirement of housing in Kuwait. The rate of growth of application is increasing due to the young average age of Kuwaiti population and the situation will only worsen without private sector participation in housing supply.

- We recommend that the government shall restrict its participation to development of infrastructure for new housing locations and master planning
- Once the master planning is done, the government can auction the land at pre-specified base rates to individuals and to real estate companies for development
- The land parcels are to be allocated to the private sector companies only for development. There should be a timeframe within which the private company must start development. Failure to start the development work within the specified time period must attract sizeable penalties in order to prevent companies from hoarding the land
- At the same time, the government must set up mechanism to speed up the construction permission process in order for the companies to start the development within a specified time
- We recommend that the government set up a single window clearance mechanism to obtain permissions from municipality, fire department and any other government agency. Such a department can streamline the process of project permission
- This is a critical element of the strategy because any delay in the permission process will prevent the private developer from starting the project within the specified time. In such a scenario, imposition of penalty will give rise to litigations and the whole purpose of the exercise will be defeated. We strongly recommend setting up of a single window speedy permission process for housing projects
- The system of single window clearance can be tested and refined for housing projects in the beginning. Once successful, it can be implemented for other types of real estate development
- It is also important to lay down rules for housing project development and sale process. The sale of a unit should only be permitted once it achieves a certain construction stage. Any off-plan sale should not be allowed to protect the buyers' interests
- It should be made mandatory for all sale proceeds to be deposited in an escrow account with a reputed bank. These sale proceeds should only be allowed to use for the payment of project related expenses such as payment to contractors. This will prevent misuse of buyers' fund for purchase of other properties
- A number of these regulations are already in practice in several countries across the world including the GCC countries such as Saudi Arabia, UAE, etc. These regulations can be studied in detail and experts from these countries can be engaged to create a suitable framework for Kuwait

## **Amendments in Banking Regulations and Corporate Laws Related to Bankruptcy and Foreclosure**

- 5. Create a framework to provide access for construction financing / project financing for private developers.**
- 6. Bankruptcy laws and transparent mechanism for foreclosures in the event of default.**

It is equally important to create mechanism for the private real estate companies to have access to financing for project development. As mentioned before, the government should make it mandatory for the private companies to buy land only on equity. No financing should be permitted for land purchase as it gives rise to excessive leveraging.

Once the land is purchased, the construction financing is important in order to allow the banks to participate in the development of the housing supply and to spread the risk in the market.

Suitable adjustments may be required in the Central Bank's directives to the banks about their exposure to the real estate sector. The government can declare the housing project financing as a priority sector lending. The access to financing at competitive pricing is key to keep the cost of development low, which will ensure that the housing supply comes in the market at affordable prices.

The government needs to inject capital in several local banks at highly competitive rate of 2.5% to 3.0%. This will enable the banks to provide construction financing at 5% to 5.5% in the market, which is very important for the success of the suggested strategies.

Alongside ensuring the access to financing, the laws regarding bankruptcy and foreclosures are equally important. If a private company fails to honor its commitments for any reason, the law should be very clear for the bank to foreclose the underlying property in a speedy manner and take necessary measure, including auction, to recover its money.

If such laws are missing, the banks will price a higher risk in project financing that will increase the rate at which the financing is available to all the private companies. This will increase the cost of development and make the houses more expensive. This is completely avoidable by making the bankruptcy and foreclosure laws transparent and applicable.

## **Change of Property Ownership Laws**

- 7. Legalization of ownership of multiple properties build on land with one title deed.**
- 8. Laws related to owners' association and their roles and responsibilities.**

Currently the fundamental basis for property ownership in Kuwait is the land area and not the built up area. This fact is visible in every manner so much so that the built up area of a property is not even captured in the property title deed because it is deemed irrelevant.

This rule needs amendment and the built up area should become the basis for ownership. If a land is attached to the said built up area on an exclusive basis, then the ownership extends automatically to the land.

The built up area based ownership will legalize the ownership of multiple properties built on one land parcel. Such a system exists in across all of North America, Europe, Asia and Middle East. In the GCC countries UAE and Bahrain have this law clearly laid out.

This law is critical to legalize the suggested [short/medium](#)-term strategies of create multiple houses from the existing houses and the government supplied B10 category houses in the existing urban areas. Without this framework, the ownership will not transfer from the seller to the buyer and the buyer will not be able to obtain mortgage financing if it is required. This law requires careful study and drafting and there are several experts available in Kuwait and in the region who can suggest a good solution.

With the shared ownership, it is important to make it compulsory to form owners' association. The government needs to create a new department in municipality to govern and control the owners' association:

- Every property should have owners' association once it has more than one owner
- Different owners must have proportionate voting rights as per their ownership share in the property
- For shared properties, all owners must contribute pre-defined monthly charges towards common area maintenance. Depending upon the grade of the property, the government can define the maximum charges that can be levied
- Any default in non-payments of these due shall lead to violation that should be solved by an arbiter appointed by the municipality. The losing party shall be responsible for not just the settlement of the dues but also the payment of the arbiter charges. This will discourage mischief
- Voting procedures must be defined for the annual election of association officials
- The owners' association must be responsible for the appointment of service vendors. Registration of these vendors must be compulsory with the municipality with transparent procedure

### **Mortgage Financing Regulations**

- 9. Introduce mortgage financing laws to enable qualified consumers to buy properties.**
- 10. Associated laws related to foreclosure of properties in the event of default and property auction mechanism.**

The mortgage financing laws are to be laid down in Kuwait in order to unlock its full potential. Kuwait is a stable economy and a vast majority of potential home buyers have adequate salary to secure KD 25,000 – 40,000 of mortgage financing. Combined with the KD 70,000 from Savings and Credit Bank, this is adequate for house buying under all the suggested strategies.

There are a number of Islamic Mortgage Financing structures available for this purpose:

- Murabahah (Cost Plus) – Completed Property
- Bai BithamanAjil (Deferred Payment Sale) – Completed Property
- Istisna' (Sale by Order) – Under Construction Property
- IjarahMuntahiaBittamleek or IjarahWalqtina – Completed Property
- IjarahMawsufah Fi al-Zimmah (Forward Ijarah) – Under Construction Property
- MusharakahMutanaqisah (Diminishing Musharaka) – Completed and Under Construction Property

These structures provide adequate facility to be used for home buying, home extension, etc.

In order for the mortgage market to work successfully, the government needs to ensure that the banks have adequate long term funding available at a competitive rate so that they can lend over long term without exposing themselves to interest rate risk.

We propose that the government should set aside KD 2-3 billion for bank funding for 25 years @ 2-3% rate. This funding can come from either the provident fund or the sovereign fund of Kuwait. This will ensure that the banks can lend @ 5% to 5.5% rate to the home buyers.

The associated foreclosure laws for private mortgage are lot more complicated because in most cases the Savings and Credit Bank will have the first charge on the house for its KD 70,000. However, this is not a difficult issue to solve. A committee can study this issue in complete details and generate recommendations to lay down an effective framework for this.

# Chapter 8

Estimation of Savings on Government Subsidies Through the Suggested Strategies [and Effect of Supply on the Waiting Period](#)

We have suggested total four strategies in this report, two of which are ~~mediumshort~~ term strategies and two others are long-term strategies.

#### ~~MediumShort~~ Term Strategy 1

Permit subdivision of existing houses and sale to housing applicant. We estimate that 35,010 houses can be supplied in the market through this strategy over the next 10 years.

#### ~~MediumShort~~ Term Strategy 2

Create Private Housing - B10 zoning in existing urban areas to construct 10 storey apartments buildings. We estimate that this strategy can supply 25,000 apartments in the market over the next 10 years.

#### Long Term Strategy 1 & 2

Government should master plan new areas, create internal infrastructure and auction plots of 400 sq.m. to individuals to construct their own houses.

In the same areas, the Government should auction plots for 100 houses to various private sector companies to construct and sell to housing applicants.

Combined these two strategies should supply 282,960 houses. We note that in the already planned areas, the government has 263,432 housing plots if all the land parcels are converted from 600 sq.m. to 400 sq.m. This leaves just 19,528 land parcels, which can be planned in any new area.

We have estimated the cost per house for each of these strategies and this is shown in Table 20.

1. The ~~mediumshort~~ term strategy 1 calls for creation of new houses from the existing houses through subdivision. This strategy does not have any cost other than the KD 70,000 from the Savings and Credit Bank. The government does not get anything back under this strategy in the ~~shortmedium~~ term and thus the net cost is KD 70,000
2. ~~MediumShort~~ Term Strategy 2 cost was shown in Table 15 in an earlier chapter. It is shown again in Table 20.
3. The long term strategies 1&2 are very similar. We have kept the internal infrastructure cost same as it is for 400 sq.m. plot currently. With the maximum permissible house area will be 600 sq.m., the cost of providing electricity and water connection drops to KD 42,000. The costs of social infrastructure and major infrastructure is kept the same as it is currently.
4. The total cost per house in this strategy is KD 178,039 but as per our suggestion, the government will get back KD 25,000 (minimum) through the auction of a land parcel to an individual or to a private real estate company. When this sale proceeds to deducted from the cost, the net cost per house is KD 153,039.
5. This is a huge reduction from the current cost of KD 252,839 per house of 400 sq.m. plot as shown in Table 11 and even bigger savings compared to KD 301,230 per house if the government increases the plot size to 600 sq.m.

| Table 20: Estimated Cost of Per House of Suggested Strategies |                                  |                                  |                          |
|---|----------------------------------|----------------------------------|--------------------------|
| Cost Head   | Medium Term Strategy 1<br>₹ Term | Medium Term Strategy 2<br>₹ Term | Long Term Strategy 1 & 2 |
| Land  | -                                | -                                | -                        |
| Internal Infrastructure                                       | -                                | -                                | KD12,009                 |
| Financing from Savings and Credit Bank                        | KD70,000                         | KD70,000                         | KD70,000                 |
| Electricity & Water Connection                                | -                                | KD21,000                         | KD42,000                 |
| Social Infrastructure   | -                                | -                                | KD24,030                 |
| Major Infrastructure  | -                                | -                                | KD30,000                 |
| Total Cost  | KD70,000                         | KD91,000                         | KD178,039                |
| less: Government Share from sale Proceeds                     | -                                | -                                | KD25,000                 |
| Net Cost  | KD70,000                         | KD91,000                         | KD153,039                |

Source: Estimates

With these reduced numbers and keeping the supply pace same as used in Chart 5 and Table 12, the reduced cost is shown in Table 21. The total cost of providing all the 342,960 houses drops to KD 48.0 billion compared to KD 102.5 billion in the original scenario. This is a saving of more than 53% for the government.

| Table 21: Estimated Cost of 342,960 Houses Through Suggested Strategies |   |   |                                 |            |                    |              |
|---|---|---|---------------------------------|------------|--------------------|--------------|
| Year  | Medium Term Strategy 1 Supply<br>₹ Term | Medium Term Strategy 2 Supply<br>₹ Term | Long Term Strategy 1 & 2 Supply | Total Cost | Original Estimates | Cost Savings |
| 2014  | 3,501                                   | 2,500                                   | 7,912                           | KD 1.7 bn  | KD 4.2 bn          | KD 2.5 bn    |
| 2015  | 3,501                                   | 2,500                                   | 8,317                           | KD 1.7 bn  | KD 4.3 bn          | KD 2.5 bn    |
| 2016  | 3,501                                   | 2,500                                   | 8,709                           | KD 1.8 bn  | KD 4.4 bn          | KD 2.6 bn    |
| 2017  | 3,501                                   | 2,500                                   | 9,092                           | KD 1.9 bn  | KD 4.5 bn          | KD 2.6 bn    |
| 2018  | 3,501                                   | 2,500                                   | 9,468                           | KD 1.9 bn  | KD 4.6 bn          | KD 2.7 bn    |
| 2019  | 3,501                                   | 2,500                                   | 9,837                           | KD 2.0 bn  | KD 4.7 bn          | KD 2.8 bn    |
| 2020  | 3,501                                   | 2,500                                   | 10,199                          | KD 2.0 bn  | KD 4.8 bn          | KD 2.8 bn    |
| 2021  | 3,501                                   | 2,500                                   | 10,552                          | KD 2.1 bn  | KD 4.9 bn          | KD 2.9 bn    |
| 2022  | 3,501                                   | 2,500                                   | 10,895                          | KD 2.1 bn  | KD 5.0 bn          | KD 2.9 bn    |
| 2023  | 3,501                                   | 2,500                                   | 11,226                          | KD 2.2 bn  | KD 5.1 bn          | KD 3.0 bn    |
| 2024  | -                                       | -                                       | 17,546                          | KD 2.7 bn  | KD 5.2 bn          | KD 2.6 bn    |
| 2025  | -                                       | -                                       | 17,850                          | KD 2.7 bn  | KD 5.3 bn          | KD 2.6 bn    |
| 2026  | -                                       | -                                       | 18,136                          | KD 2.8 bn  | KD 5.4 bn          | KD 2.6 bn    |
| 2027  | -                                       | -                                       | 18,403                          | KD 2.8 bn  | KD 5.5 bn          | KD 2.7 bn    |
| 2028  | -                                       | -                                       | 18,650                          | KD 2.9 bn  | KD 5.6 bn          | KD 2.7 bn    |
| 2029  | -                                       | -                                       | 18,875                          | KD 2.9 bn  | KD 5.6 bn          | KD 2.8 bn    |
| 2030  | -                                       | -                                       | 19,077                          | KD 2.9 bn  | KD 5.7 bn          | KD 2.8 bn    |
| 2031  | -                                       | -                                       | 19,254                          | KD 2.9 bn  | KD 5.8 bn          | KD 2.8 bn    |
| 2032  | -                                       | -                                       | 19,406                          | KD 3.0 bn  | KD 5.8 bn          | KD 2.8 bn    |
| 2033  | -                                       | -                                       | 19,546                          | KD 3.0 bn  | KD 5.8 bn          | KD 2.8 bn    |
| Total   | 35,010                                  | 25,000                                  | 282,950                         | KD 48.0 bn | KD 102.5 bn        | KD 54.5 bn   |

Source: Estimates

We have also estimated that under our suggested strategy, what will be the total cost of proving all the 342,960 houses and the electricity and water subsidy for these houses over the next 20 years. These estimates are based on the assumptions:

1. The houses created by subdivision of the existing houses do not require any new electricity consumption because the families are already living there and there is already electricity and water consumption.
2. Currently an average house draws a subsidy of KD 12,450 with an average area of 1,569 sq.m. which gives an annual subsidy of KD 8 per sq.m. per house.
3. Thus, for the Private Housing – B10 apartments, the annual electricity and water subsidy is estimated to be KD 2,400 per year.
4. For the houses in the new areas with maximum 600 sq.m. permitted area, the annual electricity and water subsidy will be KD 4,800 per house.
5. The share of private housing in overall electricity and water consumption is kept the same as 48%.

Using these assumptions, the total cost of housing construction adds to KD 48.0 billion over 20 years and electricity and water consumption subsidy for all sectors combined will add up to KD 99.3 billion. With 3.5 million barrels per day oil production and international market price of USD 100 per barrel, the total subsidy bill will be 20.4% of the oil revenue.

**Table 22: Estimates of % of Oil Revenue Required to Build Houses and Provide Subsidized Electricity and Water to All Sectors Under the Suggested Strategy**

| Year  | Total Cost of Building Houses | Cost of Electricity & Water Subsidy for Private Houses | Cost of Electricity & Water Subsidy for all Sectors | Oil Revenue with 3.5 BPD @USD 100 per barrel | % Share of Oil Revenue Taken by Housing Provisions and Electricity and Water Subsidies |
|-------|-------------------------------|--|---|--|--|
| 2014  | KD 1.7 bn                     | KD 1.8 bn  | KD 3.7 bn   | KD 36.1 bn                                   | 15.0%  |
| 2015  | KD 1.7 bn                     | KD 1.8 bn  | KD 3.8 bn   | KD 36.1 bn                                   | 15.4%  |
| 2016  | KD 1.8 bn                     | KD 1.9 bn  | KD 3.9 bn   | KD 36.1 bn                                   | 15.9%  |
| 2017  | KD 1.9 bn                     | KD 1.9 bn  | KD 4.0 bn   | KD 36.1 bn                                   | 16.3%  |
| 2018  | KD 1.9 bn                     | KD 2.0 bn  | KD 4.1 bn   | KD 36.1 bn                                   | 16.8%  |
| 2019  | KD 2.0 bn                     | KD 2.0 bn  | KD 4.2 bn   | KD 36.1 bn                                   | 17.2%  |
| 2020  | KD 2.0 bn                     | KD 2.1 bn  | KD 4.4 bn   | KD 36.1 bn                                   | 17.7%  |
| 2021  | KD 2.1 bn                     | KD 2.1 bn  | KD 4.5 bn   | KD 36.1 bn                                   | 18.2%  |
| 2022  | KD 2.1 bn                     | KD 2.2 bn  | KD 4.6 bn   | KD 36.1 bn                                   | 18.7%  |
| 2023  | KD 2.2 bn                     | KD 2.3 bn  | KD 4.7 bn   | KD 36.1 bn                                   | 19.1%  |
| 2024  | KD 2.7 bn                     | KD 2.3 bn  | KD 4.9 bn   | KD 36.1 bn                                   | 21.0%  |
| 2025  | KD 2.7 bn                     | KD 2.4 bn  | KD 5.1 bn   | KD 36.1 bn                                   | 21.6%  |
| 2026  | KD 2.8 bn                     | KD 2.5 bn  | KD 5.3 bn   | KD 36.1 bn                                   | 22.3%  |
| 2027  | KD 2.8 bn                     | KD 2.6 bn  | KD 5.4 bn   | KD 36.1 bn                                   | 22.9%  |
| 2028  | KD 2.9 bn                     | KD 2.7 bn  | KD 5.6 bn   | KD 36.1 bn                                   | 23.5%  |
| 2029  | KD 2.9 bn                     | KD 2.8 bn  | KD 5.8 bn   | KD 36.1 bn                                   | 24.1%  |
| 2030  | KD 2.9 bn                     | KD 2.9 bn  | KD 6.0 bn   | KD 36.1 bn                                   | 24.7%  |
| 2031  | KD 2.9 bn                     | KD 3.0 bn  | KD 6.2 bn   | KD 36.1 bn                                   | 25.3%  |
| 2032  | KD 3.0 bn                     | KD 3.1 bn  | KD 6.4 bn   | KD 36.1 bn                                   | 25.9%  |
| 2033  | KD 3.0 bn                     | KD 3.2 bn  | KD 6.6 bn   | KD 36.1 bn                                   | 26.5%  |
| Total | KD 48.0 bn                    | KD 47.6 bn   | KD 99.3 bn  | KD 721.8 bn                                  | 20.4%  |

Source: Estimates



Readers may recall that in the original scenario, the total cost of all subsidies was taking nearly 42.2% share of the oil revenue, which is completely unsustainable. However, we believe that our suggested strategy with 20.4% share is sustainable.

We believe that rationalizing the house sizes, passing on a small cost of the house to the home buyers and using innovative methods of getting new houses from the existing houses through subdivisions are necessary strategies to realistically achieve the housing solution for every Kuwaiti family within the next 20 years.

In the year 2033, the share of subsidies is estimated to reach around 26.5% of the oil revenue, which will put some strain on the government finances. Thus, the government must look for several other sources of generating revenues to take the burden of providing the funds for housing. Cost saving strategies are also required, particularly the energy management strategies that can help save the annual electricity and water subsidies.

#### **Effect of Proposed Supply Plan on the Housing Waiting Period**

The combined effect of the proposed housing supply on the waiting period is expected to be quite dramatic. In calculations, the waiting period is somewhat volatile estimate because it can go up and down based on any year's supply. We have shown the effect of supply on the waiting period in Table 23 below:

1. It is assumed that all the required legal amendments might take some time to take effect and therefore, the medium term 1 can only be effective from the year 2015 onwards. The total expected number of housing splits of 35,010 are spread equally over 10 years.
2. The government has the lands in existing urban areas such as Khaitan that can be utilized to develop 10 storey apartment buildings. We believe that this supply can start coming to the market from the year 2016 onwards considering 2 years of construction period. We have spread the whole target of 25,000 units over 6 years starting from 2016.
3. For the long term strategies, the government has already committed itself to deliver 12,000 houses in the year 2014. Thus, we have maintained the target.
4. From the year 2015 onwards, we have built-up the long term supply in such a way that the entire target of 342,960 houses are achieved over 20 years.
5. With that, we have shown the effect on the waiting period that is estimated to be 18 years as on 2013.
6. The waiting period will drop to 8.7 years in 2014 because the supply is quite high in this year and the pending applications are likely to drop to 104,787 by the end of 2014.
7. If the target supply is maintained for every year, the waiting period will drop below 5 years by the year 2018.
8. The waiting period will continue to decline and will be just 1 year by the time we reach 2030.
9. The government will achieve the noble goal of providing housing to all the applicants by the year 2033. From that time, the government will have to simply match the housing supply to the new applications every year.

| Table 23: Effect of the Proposed Housing Supply on the Waiting Period |                        |                        |                          |                  |                        |                     |                |
|---|------------------------|------------------------|--------------------------|------------------|------------------------|---------------------|----------------|
|   | Medium Term Strategy 1 | Medium Term Strategy 2 | Long Term Strategy 1 & 2 | New Applications | Total Housing Delivery | Pending Application | Waiting Period |
| 2013  | -                      | -                      | -                        | -                | -                      | 108,288             | 18.0 yrs       |
| 2014  | -                      | -                      | 12,000                   | 8,499            | 12,000                 | 104,787             | 8.7yrs         |
| 2015  | 3,501                  | -                      | 7,908                    | 8,904            | 11,409                 | 102,281             | 9.0yrs         |
| 2016  | 3,501                  | 4,167                  | 8,300                    | 9,296            | 15,968                 | 95,609              | 6.0yrs         |
| 2017  | 3,501                  | 4,167                  | 8,683                    | 9,678            | 16,351                 | 88,936              | 5.4yrs         |
| 2018  | 3,501                  | 4,167                  | 9,059                    | 10,054           | 16,726                 | 82,264              | 4.9yrs         |
| 2019  | 3,501                  | 4,167                  | 9,428                    | 10,423           | 17,096                 | 75,592              | 4.4yrs         |
| 2020  | 3,501                  | 4,167                  | 9,790                    | 10,786           | 17,458                 | 68,920              | 3.9yrs         |
| 2021  | 3,501                  | 4,167                  | 10,144                   | 11,139           | 17,811                 | 62,247              | 3.5yrs         |
| 2022  | 3,501                  | -                      | 10,487                   | 11,482           | 13,988                 | 59,742              | 4.3yrs         |
| 2023  | 3,501                  | -                      | 10,818                   | 11,813           | 14,319                 | 57,236              | 4.0yrs         |
| 2024  | 3,501                  | -                      | 17,138                   | 12,132           | 20,639                 | 48,730              | 2.4yrs         |
| 2025  | -                      | -                      | 17,850                   | 12,435           | 17,850                 | 43,315              | 2.4yrs         |
| 2026  | -                      | -                      | 18,136                   | 12,721           | 18,136                 | 37,901              | 2.1yrs         |
| 2027  | -                      | -                      | 18,403                   | 12,988           | 18,403                 | 32,486              | 1.8yrs         |
| 2028  | -                      | -                      | 18,650                   | 13,235           | 18,650                 | 27,072              | 1.5yrs         |
| 2029  | -                      | -                      | 18,875                   | 13,460           | 18,875                 | 21,658              | 1.1yrs         |
| 2030  | -                      | -                      | 19,077                   | 13,662           | 19,077                 | 16,243              | 0.9yrs         |
| 2031  | -                      | -                      | 19,254                   | 13,840           | 19,254                 | 10,829              | 0.6yrs         |
| 2032  | -                      | -                      | 19,406                   | 13,992           | 19,406                 | 5,414               | 0.3yrs         |
| 2033  | -                      | -                      | 19,546                   | 14,132           | 19,546                 | 0                   | 0.0yrs         |

Source: Estimates

# Chapter 9

Holistic Planning and Strategies for the Government to Fund the Housing Supply Expansion and Save Costs

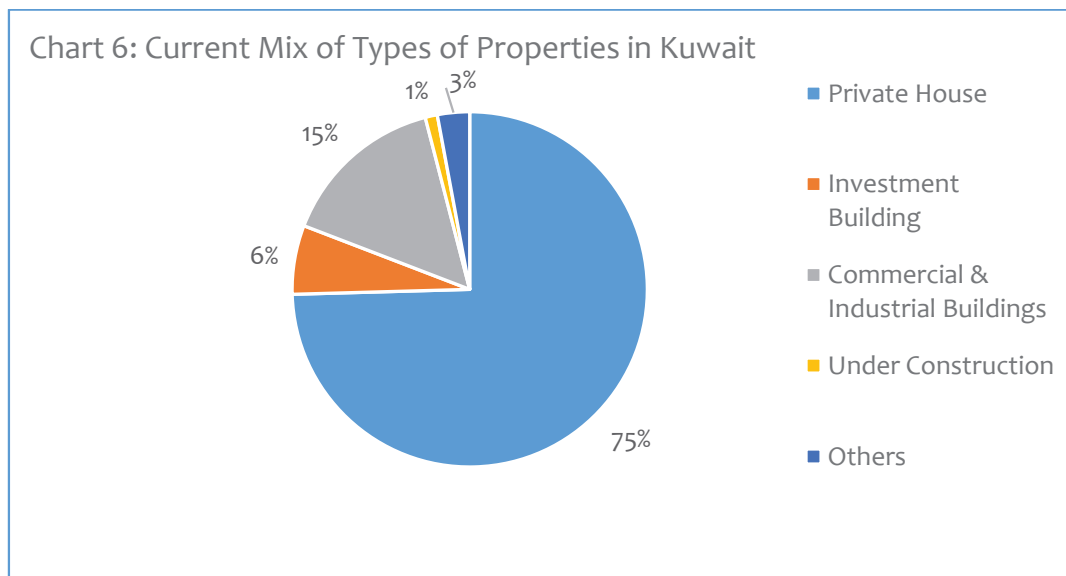
### New Land Parcels will be needed for Commercial, Industrial and Investment Properties

With the suggested expansion of housing supply, several other segments of the economy need to move in conjunction to achieve a holistic solution. For example, the rapid increase in the housing supply will require sizeable increase in the labor force and professionals working with the government and in the real estate industry. This will require creation of new investment zoned land parcels where these expats can be accommodated.

Further, the rapid expansion of housing supply will require several new industrial units, new areas for the building material supply, furniture, electric fittings, etc. This will expansion of industrial areas such as Sabhan and also Shuwaikh and Al Rai.

New housing areas will have several commercial developments such as retail malls, food & beverages areas, shopping plazas, etc.

Chart 6 shows the current mix of properties in Kuwait. Nearly 75% of the properties are private houses and 15% are commercial and industrial properties. Another 6% are investment properties; note that these are the shares of the whole buildings. Each investment property can have several apartments.



Source: PACI Data

As we are suggesting 342,960 new houses over the next 20 years, it may call for planning 114,320 new commercial, industrial and investment properties to maintain the ratio shown in Chart 6. In practice, the actual required number of commercial, industrial and investment properties may be somewhat fewer because the office properties, retail properties and industrial properties may not be required in the same proportion.

We suggest that the government can commission a detailed study to estimate the required number of properties across each type by carefully analyzing the multiplier effect of housing supply on each of these segments.

### Multiplier Effect of Housing Supply on other Business Sectors

Housing is recognized as a key sector that can generate a multiplier effect on hundreds of other sectors that are backward and forward linked to housing. Various estimates in the US, Europe and other developed countries show that include all of the direct costs of building, buying, furnishing and maintaining a home, the contribution to the GDP is between 15% and 20%, making it one of the largest segments of the economy.

However, the story doesn't stop there. Merely adding up the direct impact of housing on an economy ignores how integral housing is to behavior and spending across the entire economy. The multiplier effect boosts housing's overall importance to the economy because new home construction requires direct expenses for building materials, architectural services, construction crews and specialized contractor services. In addition, other ancillary costs such as landscaping improvements, new furniture and moving expenses are also spent in the economy. Naturally, all of these expenses are calculated as income to the providers of those goods or services, who then use the money to pay for other things.

Because housing is such a large expense, its ripple effect through the economy is larger per dinar spent than for most other spending categories. While estimates of housing's multiplier effect are wideranging, they generally fall in the range of 1.3 to 1.6 in economic impact. Put another way, one dinar spent on the housing sector benefits the economy more than if it was spent elsewhere.

The study to be conducted by the government on the housing supply and its effect on the overall economy must factor this multiplier effect when generating recommendations on the areas required for other sectors. We believe that the increase in housing supply will give big boost to the economy in general that will lead to substantial increase in the requirements of commercial, industrial and investment lands.

#### **Auction of New Industrial, Commercial and Investment Lands can give Substantial Revenue to the Government**

Once the study comes up with its suggestion, the government can allocate adequate land parcels for these types in various new areas. These lands should be auctioned by the government to private real estate companies. The government should just set the base price for these lands and then let the market determine their prices through auction.

While there will be several costs involved in creating the major infrastructure, internal infrastructure and electricity and water connection for these land parcels also, the government cannot just recover these costs fully but also generate extra revenue through auctions. This extra revenue can be put to cross subsidize the housing supply construction, which will further reduce the burden on the oil revenues.

#### **Social Security Fund can be an Ideal Source of Funding for Financial Institutions**

The Social Security Fund (PIFSS) in Kuwait is very strong with a very large portfolio. This fund can be utilized to provide the necessary long-term capital to the local financial institutions for projecting financing and for mortgage financing.

The funding structure can take a shape of equity and financing. This has the dual advantage of deploying PIFSS funds to domestic growth and at the same time, PIFSS will generate substantial returns from their investment in these institutions once the housing market grows in Kuwait.

#### **Energy Management Strategies to Rationalize the Electricity Consumption**

Table 22 shows that the government cost of providing cheaper electricity to all the sectors of the economy is twice the cost of providing the 342,960 houses over 20 years. Thus, the government should double its efforts on the reduction of this cost by utilizing all possible energy management strategies.

1. Introducing a slab based unit cost of electricity and water is the first thing the government should consider introducing without any delay. The system can be designed in such a way that it does not affect the monthly bills of careful users but penalizes the extravagant users.
2. In practice, the introduction of slab based tariff system will encourage all users to rationalize their electricity and water consumption. Simple methods such as replacing all the standard heat-producing light bulbs with energy efficient light bulbs can generate nearly 10% of electricity consumption savings.
3. Use of energy efficient window glasses can further prevent the heat loss thereby maintaining the house temperature during the summer days.
4. The government can make the usage of these energy efficient lights mandatory in all future houses.
5. District cooling systems have proven to be the most efficient system for providing the air conditioning at a large scale. This system can should be explored for the new areas of Kuwait. Once successful, this can also be implemented in the existing areas.
6. Experiences in multiple countries show that there are several others ways to manage electricity consumption without sacrificing the quality of life for the citizens. In some of the Australian cities, the electricity ministry remotely manages the load drawn by each house by utilizing smart grid systems by turning off the AC compressors off for a short period on regular intervals. These systems can help save anywhere from 5-10% further electricity consumption without any change in the quality of life.
7. A committee can be set up to study these strategies in details and generate recommendations that are suitable for Kuwait.

#### **Increased Revenue Through Custom Duty on Building Material**

In order to maintain the cost of construction, it is critical for the government to ensure adequate supply of building material in the country. Several suggested strategies can fail if the unit cost of construction increases and then the government will be forced to foot the bill.

Thus, the government should set up a special cell within the housing ministry to closely monitor the building material supply and its prices in the country.

Increasing in housing supply will lead to significantly more import of building material that will give more custom duty revenue to the government. This could be another source of revenue for the government to fund the housing supply.



