



Republic of Yemen

**MINISTRY OF PUBLIC WORKS AND HIGHWAYS (MPWH)**

Resettlement Action Plan Executive Summary for Yemen International Corridor Highway Project section between Taiz and the city of Aden (140 km)

**RP1592 V2**



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**Executive Summary of the Resettlement Action Plan  
(RAP) Report  
for the Corridor Highway between Aden and Taiz**

**Feb 26, 2014**

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## **0 EXECUTIVE SUMMARY**

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### **0.1 Introduction**

The Resettlement Action Plan (RAP) is based on Social Impact Assessment (SIA) of the people and the properties/assets affected due to proposed highway corridor (YCHP). In view of the human dimensions involved, the possible social impacts have been integrated into the improved alternative engineering designs to minimize the task of resettlement. This task has been achieved by adopting road engineering techniques in terms of the provisions raised roads, underpasses, vehicular underpasses, junctions, interchanges, culverts, bridges, service roads and wayside amenities etc.

The RAP lists a census inventory of the affected people/properties/productive assets (e.g., agricultural, pasture, residential, commercial, communal or public), community resources and public infrastructure, and religious properties (e.g., graveyards and mosques) that fall within the proposed highway corridor. Through careful project design and application of engineering techniques, efforts have been taken to minimize land acquisition, household relocation, and other resettlement impacts. The data provided in this is derived from a census survey and asset inventory for the proposed highway corridor that was conducted in late 2013 within the right-of-way (ROW) as established by MPWH.

The RAP for the YCHP has been prepared based on the provisions of Yemini laws and regulations and the World Bank OP 4.12. Its emphasis is to avoid adverse impacts of the chosen highway alignment as far as possible by suggesting steps which need to be taken to minimize the land acquisition and negative impact. In addition, the engineering design study for the highway considered three alternative alignments for YCHP. Selection criteria included:

- i. Proximity to settlement areas and social infrastructure;
- ii. Potential impacts on human health, caused by noise, by air pollution, and by traffic accidents;
- iii. Impacts on land resources and agriculture, caused by loss or severance of land resources, resulting in loss of incomes;
- iv. Natural environment conditions, including vegetation, forests and habitats, by habitat degradation and loss of biodiversity;
- v. Potential impacts on groundwater resources and wadis, by pollution of sensitive aquifers or surface waters (such as by accidents) or change of natural flow of surface waters; and
- vi. Potential impacts on cultural heritage and tourism potential, by loss or severance of traditional hillside terraces, of traditional architecture, or of landscape attractive to tourism and ecotourism.

In each of the three alternative alignments analyzed, technical assessment and economic assessment considered loss or severance of agricultural land resources together with other social impacts, and risk to available water resources, as significant factors. Design criteria intentionally kept proposed alignments at some distance from settlements so as to minimize the need for land acquisition in relatively congested or populated areas. Finally, a fourth alignment was selected for implementation which blends parts of two of the alignments analysed.

The RAP also includes various income restoration methods to improve the standard of living of the project affected people (PAPs). The organizational arrangements for the effective implementation of the project are also mentioned in the RAP. Addressing the grievances of the PAPs in a proper and timely manner is essential for the smooth implementation of the project. Keeping this in mind, setting up of grievance redress committee, its functions, role of village representative committee in facilitating grievance redress processes are described in the RAP.

Monitoring and evaluation is an important component of any development project. A separate chapter on implementation monitoring and evaluation of results has been included in the RAP. A budget for the RAP activities including financial management, compensation for land, structures and other productive assets has been prepared and included as a separate chapter in the RAP.

## **0.2 Approach and methodology**

The approach and methodology for this project involves the following:

- Detailed visits to project road to understand the settlement pattern and the physical features along the proposed highway corridor was carried out during the month of December 2013 to identify the critical sections of the road stretch and develop an understanding of socio-economic profile and activity pattern along the proposed highway corridor;
- Consultation's with the likely PAPs including women groups, PAPs representatives, village sheikhs as well as other key stakeholders including Governors, NGOs, social fund officials and officers of Governorate administration using focus group discussions were carried out. The consultation meetings and other participatory tools for the assessment to develop rapport with the stakeholders including likely PAPs, identification of the key social issues, assessment of likely impact on land, livelihood, structures, social cohesion, safety of the road users and the views of the people's on various aspects of road design were also gathered during the survey;
- Administering census and socio-economic questionnaires for collection of information on properties/structures, agriculture land, type of ownership and social groups etc;
- Documentation of the PAPs perception regarding the adverse impacts that may be caused due to the project;
- Developing a database with estimates of different categories of PAPs irrespective of their legal holdings;
- Assessment of land acquisition and cropping pattern along the proposed highway corridor alignment;
- Identification and capacity assessment of NGO/beneficiary and village representatives committees; and

- Analysis of census and socio-economic surveys for the purpose of preparation of RAP and working out the entitlement framework.

Scope of land acquisition and resettlement impacts for the YCHP is delineated below.

### **0.3 Estimate and analysis of Land acquisition and resettlement impacts**

A detailed survey and assessment of overall permanent land acquisition and resettlement impacts has been carried out for the project. Three survey teams comprised of surveyors with appropriate social survey skills and local language capability were deployed in the field during December 2013. The teams consisted of 5-6 persons and each team was headed by a senior sociologist to provide guidance and resolve process questions that might arise during the survey. The census of project affected persons (PAPs) within the proposed RoW was carried out through use of a structured questionnaire, supplemented with open-ended discussion. The census survey covered 100% of the households affected and took records of 100% of the inventory of assets affected by the road RoW in the project area. The results of the inventory have been confirmed by each affected household. The key purposes of the census survey was to identify and enumerate affected people, create an inventory of affected land and other assets, and to establish key data for many other aspects of resettlement planning (e.g., budgeting, establishing modes of assistance, monitoring, and others).

In addition, a socio-economic baseline survey of the PAPs, based on a 25 percent random sample of affected households, was also carried out. The objectives for conducting the socio-economic survey were to assess household livelihood sources and income levels, to obtain information from households regarding their relocation preferences, to identify households that may face particular vulnerabilities because of the project, and to provide information useful to preparing mitigation and support measures.

According to census survey results, a total of 2,685 households are likely to be affected by land acquisition. Among them, 308 households are tenants. In total 31,695 persons will be affected by land acquisition. These households earn their livelihood primarily through agriculture, qat cultivation, wage labor and through small businesses. A total of 1,224.8 hectares of land is to be acquired permanently for the project. Of the three governorates involved in the project, land acquisition will be disproportionately heavy in Lahj Governorate (909.6 ha.), significant in Taiz Governorate (277.9 ha.), and relatively minor in Aden Governorate (37.3 ha). The impact of land acquisition on livelihoods is likely to be significant in many cases. Of the 2,159 individual plots involved in land acquisition, 1,318 are to be acquired in their entirety (100%) while the remaining 841 plots are to be acquired in part.

In addition to land acquisition, YCHP will require substantial demolition of structures and relocation of residents. In all, 170 households (or 2,789 people) will be required to relocate. Among the governorates, Taiz will require the greatest relocation (2,546 people), compared to 233 in Lahj and 10 people in Aden.

A summary of permanent land acquisition and resettlement impacts is presented in **Table 0.1**.

**Table 0.1: Summary of land acquisition and resettlement impacts**

Magnitude of Social Impacts	Area (hectare)	
Permanent affected agricultural land	161.0	
Permanent affected residential land	11.03	
Permanent affected commercial land	21.04	
Permanent affected Utility land	223.83	
Permanent affected pasture land	696.18	
Permanent affected arid land	107.95	
Permanent affected religious land	3.77	
No. of affected residential owners	170 (nos.)	
No. of affected commercial (shops) owners	61 (nos.)	
No. of affected well owners	22 (nos.)	
Project affected households (PAHs), among	2,685 (nos.)	
	Land owners	2,377
	Tenants	308
Project affected persons (PAPs)	31,695 (nos.)	
Income sources	Mostly agriculture including Qat cultivation (about 57%), and small commercial activities and paid labour (10%) and others	

*\*Source: Census survey, December 2013.*

The permanent land to be acquired includes all land needed for the right of way, servicing areas, rest stops, access roads, overpasses (bridges), underpasses and culverts.

The project will involve temporary land use for construction camps and temporary storage of construction materials and equipment. The land survey did not cover the impacts of temporary land use because the location of construction camps etc. will be selected by the civil works contractors in consultation with local councils at the beginning of project implementation. In most cases, public land will be selected for the construction camps and storage of temporary construction materials. In case private land is needed, it will be obtained through mutual agreement between contractors and landowners.

### 0.3.1 Estimated land acquisition by category

From the census survey carried out in December 2013, it is observed that 1,224.80 hectares of land will be required for the project, belonging to private owners (485.91 ha), communities (299.58 ha) and the state (439.32 ha of public land). The land acquisition by Governorate is summarized in **Table 0.2**.

**Table 0.2: Estimated Land Acquisition by Category and Governorate/District**

Governorate	District	Total expropriated land (ha)	Public land (ha)	Communal land (ha)	Private land (ha)
Aden	Daar Sad	<b>37.36</b>	37.36	0.00	0.00
Lahj	Almosaimer	<b>291.69</b>	55.45	137.22	99.02
	Tuban	<b>617.88</b>	346.50	158.28	113.10

<b>Sub-Total Lahj</b>		<b>909.57</b>	<b>401.95</b>	<b>295.50</b>	<b>212.12</b>
Taiz	Al Taiziah	<b>50.04</b>	0.00	0.86	49.18
	Mawiyah	<b>227.83</b>	0.00	3.22	224.60
<b>Sub-Total Taiz</b>		<b>277.87</b>	<b>0.00</b>	<b>4.08</b>	<b>273.78</b>
<b>Total</b>		<b>1224.80</b>	<b>439.31</b>	<b>299.58</b>	<b>485.91</b>

\*Source: Census survey, December 2013.

The census survey also determined that a total of 2,159 land plots will be acquired. The majority of them are to be wholly affected (100% to be acquired) by permanent land acquisition for YCHP. The details of land to be taken and a breakdown by category of affected land plots, by type of land, ownership and governorate, is provided in **Table 0.3**. Concerning commercial land, about 80 percent of such land to be acquired of commercial structures to be demolished are located at one single location, namely near Noubat Dokaim where the original engineering design of 2004 foresees a very large multi-road interchange. At that time, land use at that location was different and most of the now existing commercial structures were built after 2004. MPWH plans to move the location of the planned interchange by about 300 meters so that it will mostly be located on public land. This will avoid about 70% of the high cost of acquiring commercial land and demolishing commercial structures at that location (Noubat Dokaim). The total quantities in those lines are therefore estimated to be 44% of the original quantities.

**Table 0.3: Breakdown of Affected Land Plots by Category**

Governorate	Land Acquisition						
	Land Acquired (ha)	Private Land	No. of Plots	Communal Land	No. of Plots	Public Land	No. of Plots
Taiz	277.87	Residential	84	Residential	0	Residential	0
		Agricultural	1005	Agricultural	0	Agricultural	0
		Commercial	7	Commercial	0	Commercial	0
		Pasture land	0	Pasture land	0	Pasture land	0
		Arid land	12	Arid land	0	Arid land	0
		Religious	3	Religious	10	Religious	0
		Utility land	158	Utility land	8	Utility land	0
		<b>Total</b>	<b>1269</b>	<b>Total</b>	<b>18</b>	<b>Total</b>	<b>0</b>
Lahj	909.57	Residential	64	Residential	0	Residential	3
		Agricultural	324	Agricultural	0	Agricultural	0
		Commercial	55	Commercial	2	Commercial	6
		Pasture land	81	Pasture land	71	Pasture land	33
		Arid land	104	Arid land	8	Arid land	2
		Religious	1	Religious	3	Religious	1
		Utility land	13	Utility land	21	Utility land	38
		<b>Total</b>	<b>642</b>	<b>Total</b>	<b>105</b>	<b>Total</b>	<b>83</b>
Aden	37.36	Residential	0	Residential	0	Residential	6
		Agricultural	0	Agricultural	0	Agricultural	13
		Commercial	0	Commercial	0	Commercial	1
		Pasture land	0	Pasture land	0	Pasture land	0
		Arid land	0	Arid land	0	Arid land	17
		Religious	0	Religious	0	Religious	0

Governorate	Land Acquisition						
	Land Acquired (ha)	Private Land	No. of Plots	Communal Land	No. of Plots	Public Land	No. of Plots
		Utility land	0	Utility land	0	Utility land	5
		<b>Total</b>	<b>0</b>	<b>Total</b>	<b>0</b>	<b>Total</b>	<b>42</b>
<b>Total</b>	<b>1224.80</b>	-	<b>1911</b>	-	<b>123</b>	-	<b>125</b>

The current use of the land to be acquired, by Governorate, is shown in **Table 0.4**.

**Table 0.4: Current use of land to be acquired**

Governorate	District	Total expropriated land	Agricultural land	Pasture	Residential	Commercial	Arid Land	Religious	Utility Land
Aden	Daar Sad	<b>37.36</b>	2.47	0.00	4.45	0.00	12.41	0.00	18.04
Lahj	Almosaimer	<b>291.63</b>	24.75	240.17	0.19	15.43	2.07	0.00	9.02
	Tuban	<b>617.94</b>	15.33	456.01	4.22	5.39	78.35	0.38	58.27
<b>Sub-Total Lahj</b>		<b>909.57</b>	<b>40.07</b>	<b>696.18</b>	<b>4.41</b>	<b>20.81</b>	<b>80.42</b>	<b>0.38</b>	<b>67.29</b>
Taiz	Al Taiziah	<b>50.04</b>	23.98	0.00	1.19	0.06	13.98	0.32	10.52
	Mawiyah	<b>227.83</b>	94.48	0.00	0.98	0.17	1.14	3.07	127.98
<b>Sub-Total Taiz</b>		<b>277.87</b>	<b>118.46</b>	<b>0.00</b>	<b>2.17</b>	<b>0.23</b>	<b>15.12</b>	<b>3.39</b>	<b>138.50</b>
<b>Total</b>		<b>1224.80</b>	<b>161.00</b>	<b>696.18</b>	<b>11.03</b>	<b>21.04</b>	<b>107.95</b>	<b>3.77</b>	<b>223.83</b>

*\*Source: Census survey, December 2013.*

### 0.3.2 Number of plots expropriated and people affected

It has emerged from the census survey that as many as 2,159 land plots are to be affected in all three Governorates (i.e. Taiz, Lahj and Aden) due to land acquisition for the proposed project. The findings of the census survey, by governorate, are summarized in **Table 0.5**.

**Table 0.5: Number of plots to be expropriated and number of people affected**

Governorate	District	No. of plot	Number of plots totally expropriated	Number of plots partially expropriated	Expropriated areas (ha)	Number of landowner households affected	Number of people affected	Number of tenant Households
Aden	Daar Sad	<b>42</b>	<b>8</b>	<b>34</b>	<b>37.40</b>	<b>0</b>	<b>44</b>	<b>5</b>
Lahj	Almosaimer	395	236	159	291.70	534	2699	51

Governorate	District	No. of plot	Number of plots totally expropriated	Number of plots partially expropriated	Expropriated areas (ha)	Number of landowner households affected	Number of people affected	Number of tenant Households
	Tuban	435	213	222	617.94	202	959	7
<b>Sub-Total Lahj</b>		<b>830</b>	<b>449</b>	<b>381</b>	<b>909.64</b>	<b>736</b>	<b>3658</b>	<b>58</b>
Taiz	Al Taiziah	214	132	82	50.04	351	6272	0
	Mawiyah	1073	729	344	226.80	1290	21721	245
<b>Sub-Total Taiz</b>		<b>1287</b>	<b>861</b>	<b>426</b>	<b>276.83</b>	<b>1641</b>	<b>27993</b>	<b>245</b>
<b>Total</b>		<b>2159</b>	<b>1318</b>	<b>841</b>	<b>1224.88</b>	<b>2377</b>	<b>31695</b>	<b>308</b>

\*Source: Census survey, December 2013.

### 0.3.3 Estimated overall residential structures to be demolished

According to the results of the December 2013 census survey, a total of 170 residential structures are to be demolished, of which 127 residential structures are located in Taiz Governorate and 42 in Lahj Governorate. Only very minor residential demolition is to occur in Aden Governorate. Table 0.6 provides details regarding demolition of residential structures in YCHP.

**Table 0.6: Estimated demolition of residential structures by Governorate**

Governorate	District	Residential area (Sq.m)				Number of households
		Concrete	Brick	Mud	Stone	
Aden	Daar Sad	<b>142.00</b>	<b>367.20</b>	<b>0.00</b>	<b>0.00</b>	<b>1</b>
<b>Sub-Total Aden</b>		142.00	367.20	0.00	0.00	1
Lahj	Almosaimer	0.00	377.67	0.00	64.20	22
	Tuban	651.00	2378.02	19.00	101.00	20
<b>Sub-Total Lahj</b>		<b>651.00</b>	<b>2755.69</b>	<b>19.00</b>	<b>165.20</b>	<b>42</b>
Taiz	Al Taiziah	0.00	1107.51	0.00	1359.53	61
	Mawiyah	0.00	1561.00	0.00	2517.00	66
<b>Sub-Total Taiz</b>		<b>0.00</b>	<b>2668.51</b>	<b>0.00</b>	<b>3876.53</b>	<b>127</b>
<b>Total</b>		<b>793.00</b>	<b>5791.40</b>	<b>19.00</b>	<b>4041.73</b>	<b>170</b>

\*Source: Census survey, December 2013.

### 0.3.4 Estimate of commercial structures to be demolished

There are 61 shops or other commercial structures that may need to be demolished due to the project. The great majority of impacts on businesses will occur in Lahj Governorate, where 43 commercial structures will be demolished. However, as indicated earlier, 80% of these are at one single location near Noubat Dokaim where a large interchange is to be constructed. MPWH plans to redesign the interchange so that about 70% of the demolitions of commercial structures at that location may be avoided. Another 17 commercial structures will be demolished in Taiz Governorate,

and one will be demolished in Aden. Table 0.7 provides details regarding demolition of commercial structures in YCHP, without considering the likely avoidance of demolitions due to the redesign of the interchange at Noubat Dokaim.

**Table 0.7: Estimated commercial structures demolition**

Governorate	District	Commercial area (Sqm)				Number of owner
		concrete	brick	Mud	Stone	
Aden	Daar Sad	0.00	50.00	0.00	0.00	1
<b>Sub-Total Aden</b>		0.00	50.00	0.00	0.00	1
Lahj	Almosaimer	0.00	0.00	0.00	258.44	11
	Tuban	7884.33	5055.07		956.00	32
<b>Sub-Total Lahj</b>		<b>7884.33</b>	<b>5055.07</b>	<b>0.00</b>	<b>1214.44</b>	<b>43</b>
Taiz	Al Taiziah	0.00	0.00	0.00	61.00	1
	Mawiyah	0.00	176.50	0.00	132.30	16
<b>Sub-Total Taiz</b>		<b>0.00</b>	<b>176.50</b>	<b>0.00</b>	<b>193.30</b>	<b>17</b>
<b>Total</b>		<b>7884.33</b>	<b>5281.57</b>	<b>0.00</b>	<b>1407.74</b>	<b>61</b>

*\*Source: Census survey, December 2013.*

### 0.3.5 Impact on Agricultural Land and Livelihoods

Much of the area along the 140 km YCHP highway alignment is presently used for agricultural purposes. In all, YCHP will acquire 161 hectares of agriculture land, plus 696.18 hectares of pasture area. The majority of agriculture land acquisition will take place in Taiz Governorate (118.46 ha) followed by Lahj (40.07 ha). Only 2.47 ha of agricultural land will be acquired in Aden Governorate. All of the pasture land to be acquired is located in Lahj Governorate, according to census survey results.

In particular, among 2,159 plots of land, there are 1,329 plots of private agricultural land, of which 721 plots (54%) will be wholly acquired (100%). As local people mainly rely on agriculture as their source of income and livelihoods, the impacts are significant. The distribution of private land acquisition by plot in different governorates is presented in **Table 0.8**.

**Table 0.8: Private Agricultural Land Plots Acquired**

Governorate	Total private agricultural plots affected	Number of plot to be wholly acquired (100%)
Aden	0	0
Lahj	324	124
Taiz	1005	579
<b>Total</b>	<b>1329</b>	<b>721</b>

*\*Source: Census survey, December 2013.*

The proposed highway corridor passes through the Governorates of Taiz, Lahj and Aden. A majority of impact on crops is on corn (82.21 ha) followed by clover 13.36 ha, wheat (6.33 ha), sorghum (4.44 ha) and henna (0.47 ha). A detailed breakdown of affected crops by governorate is provided in **Table 0.9**. However, in line with usual practice, MPWH will notify farmers to harvest any planted crops and will give them sufficient time to do so. Therefore, standing crops are therefore not likely to be affected.

**Table 0.9: Types of crops on affected land, by governorate**

Governorate	District	Total Agricultural land (ha)	Type of crops					
			Corn	Wheat	Clover	Henna	Sorghum	Cotton
Aden	Daar Sad	2.47	-	-	0.42	-	-	-
<b>Sub-Total Aden</b>		<b>2.47</b>	<b>-</b>	<b>-</b>	<b>0.42</b>	<b>-</b>	<b>-</b>	<b>-</b>
Lahj	Almosaimer	24.75	11.30	6.33	0.73	-	-	-
	Tuban	15.33	0.35		11.96	-	-	0.99
<b>Sub-Total Lahj</b>		<b>40.07</b>	<b>11.65</b>	<b>6.33</b>	<b>12.69</b>	<b>0.00</b>	<b>0.00</b>	<b>0.99</b>
Taiz	Al Taiziah	23.98	16.58	-	-		-	-
	Mawiyah	94.48	53.97	-	0.26	0.47	4.44	-
<b>Sub-Total Taiz</b>		<b>118.46</b>	<b>70.56</b>	<b>0.00</b>	<b>0.26</b>	<b>0.47</b>	<b>4.44</b>	<b>0.00</b>
<b>Total</b>		<b>161.00</b>	<b>82.21</b>	<b>6.33</b>	<b>13.36</b>	<b>0.47</b>	<b>4.44</b>	<b>0.99</b>

\*Source: Census survey, December 2013.

The field survey has also revealed that 433,075 privately owned trees/plants are likely to be affected due to the construction of the proposed highway. These include 412,050 qat plants, 794 banana, 522 mango, 187 papaya, 169 guava, 50 lemon and other 18,879 trees of other types. A breakdown of number and type of affected trees is provided in the following **Table 0.10**. Concerning the Qat plants, which are actually classified as trees, given their small size and other characteristics, they can usually be removed with their roots and replanted. Based on experience in Yemen, it can be assumed that the owners of about 70% of the Qat trees will prefer to relocate their trees, while in 30% of the cases the trees will be cut and destroyed.

**Table 0.10: Number and types of trees to be affected**

Governorate	District	Number of trees													
		Orange	Qat	Palm	Other Trees	Mango	Guava	Papaya	Banana	Apple	Apricot	Figs	Lemon	Pomegranate	Pepper
Aden	Daar Sad	0	0	0	0	0	-	-	-	-	-	-	-	-	-
<b>Sub-Total Aden</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Lahj	Almosaimer	-	22013	3	6795	145	87	10	450	-	-	28	13	3	-
	Tuban	-	-	-	956	17	-	175	220	-	2	30	37	-	-
<b>Sub-Total Lahj</b>		<b>30984</b>	<b>0</b>	<b>22013</b>	<b>3</b>	<b>7751</b>	<b>162</b>	<b>87</b>	<b>185</b>	<b>670</b>	<b>0</b>	<b>2</b>	<b>58</b>	<b>50</b>	<b>3</b>
Taiz	Al Taiziah	0	3453	1	2471	2	16	-	2	2	-	-	-	21	280
	Mawiyah	8	386584	10	8657	358	66	2	122	-	-	5	-	7	24
<b>Sub-Total Taiz</b>		<b>402091</b>	<b>8</b>	<b>390037</b>	<b>11</b>	<b>11128</b>	<b>360</b>	<b>82</b>	<b>2</b>	<b>124</b>	<b>2</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>28</b>
<b>Total</b>		<b>433075</b>	<b>8</b>	<b>412050</b>	<b>14</b>	<b>18879</b>	<b>522</b>	<b>169</b>	<b>187</b>	<b>794</b>	<b>2</b>	<b>2</b>	<b>63</b>	<b>50</b>	<b>31</b>

\*Source: Census survey, December 2013.

### 0.3.6 Estimated impact on other land attachment assets

There are some other types of land attachment assets which are likely to be affected due to the proposed highway corridor project. It involves 22 water wells, 2 water pools, 38 fences, 16 guard rooms, 10 graves, 8 mosques and one barn. The details as are presented in **Table 0.11**.

**Table 0.11: Impact on other Land attachment assets**

Governorate	District	Other land attachment assets						
		Graves	Well	Fence	Water Pool	Barn	Guard Room	Mosques
Aden	Daar Sad	0	1	-	-	-	-	-
<b>Sub-Total Aden</b>		<b>0</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Lahj	Almosaimer	1	2	31	-	-	-	-
	Tuban	2	3	-	1	1	-	2
<b>Sub-Total Lahj</b>		<b>3</b>	<b>5</b>	<b>31</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>
Taiz	Al Taiziah	2	1	6		-	3	1
	Mawiyah	5	15	1	1	-	13	5
<b>Sub-Total Taiz</b>		<b>7</b>	<b>16</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>16</b>	<b>6</b>
<b>Total</b>		<b>10</b>	<b>22</b>	<b>38</b>	<b>2</b>	<b>1</b>	<b>16</b>	<b>8</b>

*\*Source: Census survey, December 2013.*

## 0.4 Estimate and analysis of project affected persons and Baseline survey results

The information is derived largely from the December 2013 census survey undertaken to identify and enumerate Project-Affected Persons (PAPs) and the land and other assets they will lose as a result of YCHP. Information also is derived from a separate socio-economic survey undertaken on a 25% sample basis among affected households, to obtain supplementary information regarding their present livelihoods and living conditions. An estimate and analysis of project affected persons is described in subsequent paragraph.

### 0.4.1 Persons affected by land acquisition

The census survey indicates that 31,695 persons (of which 15,974 are male and 15,721 female) will potentially be impacted or will suffer socio-economic losses as a result of project activities due to land acquisition for the project. A detailed breakdown of male/female PAPs is summarised in the following **Table 0.12**.

**Table 0.12: Persons affected by land acquisition, by gender**

Governorate	PAPs Affected by Land Acquisition		Total
	Male PAPs	Female PAPs	
Taiz	14108	13885	27993
Lahj	1844	1814	3658
Aden	22	22	44
<b>Total</b>	<b>15974</b>	<b>15721</b>	<b>31695</b>

*\*Source: Census survey, December 2013.*

#### 0.4.2 Persons affected by demolition of houses

A total of 2,789 persons (of which 1,405 are male and 1,384 female) will be potentially impacted through residential assets losses as a result of the project. A detailed breakdown of male/female PAPs affected by demolition of houses is summarized in **Table 0.13**.

**Table 0.13: Persons affected by demolition of housing, by gender**

Governorate	PAPs Affected by demolition of housing		Total
	Male	Female	
Taiz	1283	1263	2546
Lahj	117	116	233
Aden	5	5	10
<b>Total</b>	<b>1405</b>	<b>1384</b>	<b>2789</b>

*\*Source: Census survey, December 2013.*

#### 0.4.3 Persons affected by demolition of commercial structures

A total of 463 persons (of which 231 are male and 232 female) will be potentially impacted/suffer losses due to demolition of commercial assets as a result of project implementation. Among them, 82 persons work in those commercial structures. A detailed breakdown of male/female PAPs affected by demolition of business structures is summarised in **Table 0.14**. However, as indicated earlier, the planned redesign of the large interchange near Noubat Dokaim will very significantly reduce the number of affected persons.

**Table 0.14: Persons affected by demolition of Businesses Structures, by gender**

Governorate	PAPs Businesses affected by demolition of Structures		Total
	Male	Female	
Taiz	130	135	265
Lahj	95	93	188
Aden	6	4	10
<b>Total</b>	<b>231</b>	<b>232</b>	<b>463</b>

*\*Source: Census survey, December 2013.*

#### 0.4.4 Estimation and analysis of total affected persons

A total of 31,695 persons are likely to be affected due to the construction of the proposed highway in terms of impact on their business, housing, farm land, infrastructure etc. The majority of PAPs is likely to be affected due to loss of land only (89.7%) followed by a combination of loss of land and housing (8.8%) and loss of land and business premises (1.5%). The findings of the census survey are summarized in the following **Table 0.15**.

**Table 0.15: Total Affected Persons, by type of loss**

Governorate	PAPs			Total
	Land loss only	Land/Housing loss	Land/Business premises loss	
Taiz	25182	2546	265	27993
Lahj	3237	233	188	3658
Aden	24	10	10	44
<b>Total</b>	<b>28443</b>	<b>2789</b>	<b>463</b>	<b>31695</b>
<b>Percentage</b>	<b>89.7</b>	<b>8.8</b>	<b>1.5</b>	<b>100</b>

*\*Source: Census survey, December 2013.*

#### 0.4.5 Household Size

The socio-economic baseline survey has revealed that the average family size along the project area is 8.2 members. However, the average size of the affected households is 11.8 members because there are several very big households among the affected. For instance, one household has 300 members, two households have over 200 members, and about another 10 households have over 100 members.

#### 0.4.6 Sex-Ratio along project area

The analysis of the field survey reveals that 50.4% of the population are male and 49.6% are female. The male-female ratio is in favour of males, which seems to be a mirror image of the national figure. See **Table 0.16** below.

**Table 0.16: Sex Ratio in project area**

Particulars	Households	
	Number	Percentage
Male	15974	50.4
Female	15721	49.6
<b>Total</b>	<b>31695</b>	<b>100</b>

*\*Source: Socio-Economic Survey, Dec 2013.*

#### 0.4.7 Household family type

It has been enumerated from the households' survey that a majority of families are Joint (93%) followed by Nuclear (5.7%) and Extended (1.3%). The details of family type are summarized in **Table 0.17**.

**Table 0.17: Households by family type**

Family Type	Households	
	Number	Percentage
Joint	437	93
Nuclear	27	5.7
Extended	6	1.3
<b>Households Interviewed</b>	<b>470</b>	<b>100</b>

*\*Source: Socio-Economic Survey, Dec 2013.*

#### 0.4.8 Educational status of households members

The literacy rate in project area is 91.7 % and thus higher in comparison with the country average. The households which have members who completed primary, secondary and university level constitute 54.7%, 9.8%, 3.6% respectively, whereas 20.8% households are only literate. The findings of the household survey are presented in **Table 0.18**.

**Table 0.18: Educational status of household members**

Education	Household members	
	Number	Percentage
I. Technical Education	153	2.8
University Level	201	3.6
II. Secondary	543	9.8
II. Primary	3033	54.7
Just literate	1156	20.8
Illiterate	460	8.3
<b>Total</b>	<b>5546</b>	<b>100</b>
<b>Households Interview</b>	<b>470</b>	

*\*Source: Socio-Economic Survey, Dec 2013*

#### 0.4.9 Occupation of household members

The baseline survey revealed that a majority of households' members are engaged in agriculture (56.3%) followed by others (19.7% i.e. unemployed persons, aged family members, housewives and children), students (13.5%), labourer activities (2.7%), business (2.6%), government service (1.6%), private service (1.4%). The facts are summarized in **Table 0.19**.

**Table 0.19: Occupation of households members**

Source of income	Household members	Percentage
Agriculture	3122	56.3
Agriculture-related ( <i>Dairy, poultry, sheep, goats, camel and cattle</i> )	67	1.2
Household Industry	21	0.4
Business	144	2.6
Tourism	11	0.2
Government Service	89	1.6
Private Service	78	1.4
Mining Related work	22	0.4
Wage Laborer	150	2.7
Students	749	13.5
Others ( <i>includes unemployed persons, aged family members, housewives and children</i> )	1093	19.7

Source of income	Household members	Percentage
<b>Total</b>	<b>5546</b>	<b>100</b>
<b>Households Interviewed</b>		<b>470</b>

*\*Source: Socio-Economic Survey, Dec 2013.*

#### 0.4.10 Household Annual Income

In accordance socio-economic survey, a majority of households (72.6%) have reported their annual income in range of US\$ (500-600) followed by 9.4% households in the range US\$ (600-800). A detailed breakdown is provided in **Table 0.20**.

**Table 0.20: Households Annual Income**

Annual Income (US\$)	Households	
	Number	Percentage
0-500	38	8.1
500-600	341	72.6
600-800	44	9.4
800-1000	23	4.9
1000-5000	12	2.6
1500-2000	8	1.6
Above than 2000	4	0.8
<b>Total</b>	<b>470</b>	<b>100</b>

*\*Source: Socio-Economic Survey, Dec 2013.*

#### 0.4.11 Women's Participation

The socio-economic status of women along the proposed highway corridor is reasonably low as evident from the socio-economic survey. Women's highest participation is limited to their household work and they constituted 4.7% of the work force for agriculture. Likewise decision making power of women along the project area reveals that women are not free to participate in all activities. They do not have say in decisions related to financial matters, education of children, and health care, purchasing and other day-to-day activities. The findings of the women's engagement in various economic, non-economic activities and decision making power are documented in the following **Table 0.21**.

**Table 0.21: Women's Participation**

Activities	Households	
	Number	Percentage
<b>Economic and non-economic activities</b>		
Cultivation	22	4.7
Service	2	0.4
Trade and business	1	0.2
Household work	470	100
Relaxation and entertainment	14	3
<b>Decision making</b>		
Financial matters	6	1.3
Education of child	3	0.6

Health care of child	8	1.7
Purchase of assets	2	0.4
Day to day activities	0	0.0
On social functions	14	3.0
<b>Households Interviewed</b>	<b>470</b>	

*\*Source: Socio-Economic Survey, Dec 2013.*

## 0.5 Land acquisition, resettlement policy and regulations

The Constitution and laws of Yemen establish the basic legal and regulatory framework for land acquisition and resettlement under YCHP. Among other key elements, eminent domain provisions for declaring land areas necessary for state development purposes, provisions for payment of compensation for expropriated property, and definition of property rights regarding ownership or use of individually titled and communal property exist. Where the Yemen legal framework is not consistent with World Bank OP 4.12 requirements, or where existing laws or regulations are not usually implemented, special policy measures will be implemented in YCHP (see further below and Section 5.5 of Chapter 5).

The Yemeni Constitution protects citizens from unwarranted expropriation of their assets (Articles 7c and 20). The Public Utility Ownership Law (1/1995) (PUOL) gives governmental bodies (including regional governors) the right to acquire private property for projects in the public interest. By law, if suitable land that is already in the public domain is not available, legal provisions for expropriation and compensation apply. The law describes (i) situations in which expropriation is permissible, (ii) expropriation procedures, and (iii) the agency responsible for valuation of assets and compensation procedures.

The PUOL describes three main forms of expropriation: (i) judicial expropriation, in which the state declares the need to acquire land in the public interest; (ii) amicable expropriation, in which a consent agreement is reached with compensation determined by a technical committee; and (iii) temporary appropriation, in which government agencies require temporary access to land for construction-related purposes. Land acquired for temporary purposes must be returned to the owner in its former condition or payment for any damages is required. A technical committee assesses damages.

Formal supplementary regulations exist for expropriation in urban areas under Executive Regulations (260/1997) to the Urban Planning Law (20/1995). Compensation for land expropriated for urban infrastructure or facilities is required when the land area taken exceeds 25 percent of the property plot affected. When such conditions apply, the procedures and documentation required are relatively extensive. As a result, the law is not usually applied in practice.

No specific regulations are in place regarding land acquisition in rural areas. Formal application of expropriation law is viewed as expensive and time-consuming. In current practice, project agencies seek to negotiate donation of land from affected landowners, or to arrange in-kind substitution of assets under the auspices of local authorities, typically the regional governor.

The Customary Law of the Yemeni Tribes (*Urf*) is recognized by GoY and the judicial authorities as the legal source that defines the land rights of individuals and communal property rights. The customary ownership of rural estates can be formalized into titled ownership at the request of the rights holder. This is rarely done, however, because of the costs and complex bureaucratic procedures involved. In most rural areas, land rights, both of the individual and communal type, are generally based on *de facto* possession.

Structures and fixed assets built by individuals on private or communal land are, in principle, eligible for compensation. Structures and fixed assets built by individuals on public land, or land to which they have no legal claim, are not compensated when demolition is deemed necessary in the public interest. While religious trust land (*waqf*) is considered public property, assets built by private renters on waqf estates are eligible for compensation. The agency expropriating waqf land also is responsible for relocation or reconstruction of social or religious facilities such as community centers, mosques and graveyards.

As noted above, in practice formal expropriation and payment of compensation are generally uncommon, especially in rural areas where customary practices remain strong. As compensation is uncommon, little information is available relating to valuation standards and procedures. A number of practical problems undermine effective land management in Yemen, making it more difficult to implement land acquisition arrangements in conformity with the law:

- a) Customary rules and formal laws often conflict, or there is no clear division of responsibilities or authority between customary leaders and GoY agencies;
- b) There is no clear delineation between private lands and communal lands in many areas;
- c) There is no complete cadastral system, and there is little confidence in the Land Registry; and
- d) The court system is ineffective, lacks clear and authoritative precedents on land issues, and is overburdened with land conflict cases.

As stated above, special policy provisions are necessary in YCHP to meet required standards and procedures of OP 4.12. In some cases, this reflects gaps between OP 4.12 policy standards or procedures and GoY laws and regulations. In some cases, this reflects identified implementation performance gaps, where GoY laws and regulations are not effectively observed or enforced. These special policy provisions cover

- establishing an eligibility cut-off date
- compensation of land, structures and other assets at replacement cost
- transitional assistance for displaced households and businesses
- assistance to affected people who lack title or legal rights
- assistance to sharecroppers, laborers and members of vulnerable groups
- restoration of public or community facilities and services

## **0.6 Compensation and transitional assistance**

To facilitate restoration of livelihoods and living standards for all affected persons, YCHP provides compensation at replacement cost for all categories of land or other

fixed assets that are lost for affected persons because of the project. Transitional allowances are provided for households and businesses that must relocate. And other forms of assistance are to be provided to those who do not own affected land or other assets, but whose livelihoods or living standards may nonetheless be adversely affected by the project. A description of compensation and assistance measures for the different categories of project affected persons is provided in subsequent section.

### ***0.6.1 Compensation***

All project affected persons shall be entitled to compensation at replacement cost for affected tangible assets (e.g., loss of land, residential or commercial assets, and business establishments, pumping wells, trees, crops and other immovable assets).

### ***0.6.2 Transitional Assistance***

Transitional allowances are to be provided to households and businesses that are required to relocate because of the project. An estimated 170 households will be affected by demolition of residential structures. The transitional allowance for residential relocation will be equivalent to 1,000 Yemeni Rials per square meter of demolished structure. A total of 61 businesses will be affected by demolition of commercial structures. Because the costs of commercial relocation can vary greatly with the kinds of equipment and materials requiring relocation, the transitional assistance to be provided to relocating businesses will be determined on a case-by-case basis. The minimum rate, however, will be 2,000 Yemeni Rials per square meter of demolished commercial structure.

### ***0.6.3 Assistance to Others affected by the Project***

Other categories of people who do not own affected land or other assets may nonetheless be affected by YCHP. In the case of this project, these categories include essentially landless tenant farmers.

### ***0.6.4 Compensation for Loss of communal property or facilities***

YCHP provides for compensation in cash at replacement cost or direct asset replacement for affected communal property or facilities. It is expected that all affected facilities (e.g., mosques, graves, markets, etc.) will be replaced by YCHP to at least the same standard that existed prior to the project's implementation, without cost to the affected communities. Relocation will be done following consultation with local people and the cost of relocation will be covered either through cash payments and/or by the construction of replacement facilities. These consultations will be carried out by MPWH staff and the decisions taken during the consultations will be recorded in writing.

## **0.7 Livelihood restoration arrangements**

Livelihood restoration at pre-project level is an important part of rehabilitating socio-economic and cultural systems in affected communities and within project affected people. YCHP will affect persons in varying ways and in varying degrees. The RAP distinguishes between major categories of affected persons, and provides additional

assistance to categories of persons who are most significantly affected, or those who would face project caused impacts that would not normally be mitigated through compensation for assets. These categories and corresponding assistance arrangements are described further below.

## **0.8 Organizational arrangements**

Effective implementation of land acquisition and resettlement arrangements requires timely performance of necessary activities, carefully sequenced against the project construction timetable. This is especially the case with regard to delivery of compensation to affected persons, which is necessary before the YCHP can obtain access to necessary land, demolish structures, and initiate civil works. Because of the linear nature of YCHP works, land acquisition and resettlement will be conducted in a staggered manner, so that compensation is paid and land is acquired only as it is needed for civil works. The estimated time frame for actual land acquisition and resettlement is June 2014 through June 2016. A mechanism to address grievances by affected persons has been defined (Grievance Redress Mechanism) and is described in Chapter 8.

## **0.9 Budget and financial management**

The overall estimated budget of Resettlement component is US\$ 19.0million as presented in the following **Table 0.22**.

**Table 0.22: Total RAP Costs**

<b>Particulars</b>	<b>Reference</b>	<b>Amount (US\$)</b>
Estimated cost for compensation of assets	Table 9.1	<b>18,303,773</b>
Allowances and support to affected persons	Table 9.2	700,961
<b>RAP TOTAL COSTS</b>		<b>19,004,734</b>

## **0.10 Public consultation and information disclosure**

Extensive public consultations were carried out with various stakeholders at various locations throughout the length of the proposed highway corridor between Aden and Taiz. The consultations were undertaken with government officials, PAPs, sheikhs and community leaders, including women groups. The locations, number of people that participated, the consultation methods used and the wide range of issues raised and discussed during the consultations are documented in Chapter 10.

## **0.11 Implementation monitoring and evaluation of results**

Monitoring and evaluation are the primary means to assess the extent to which resettlement plans have been implemented, and the extent to which resettlement objectives have been achieved. MPWH bears the primary responsibility for monitoring the implementation of the Resettlement Plan. Independent third-party

monitoring will also be used. Monitoring is based on periodic field reviews during the implementation phase, and is intended primarily to identify issues and problems in implementation in a timely manner. Identification of issues and problems at an early stage of implementation helps to promote improvements in practice before budget resources are expended, or before complaints arise, and otherwise provides feedback for project management to keep the program on schedule. The primary purpose of evaluation is to assess the effectiveness of implementation, to determine whether resettlement objectives have been achieved or whether alternative measures may be necessary to complete the resettlement process in a satisfactory manner. Arrangements are in place for both internal and external monitoring of all YCHP resettlement activities, and for evaluation of resettlement effectiveness, as described in Chapter 11.

### **0.12 Entitlement matrix**

For ease of reference, the entitlement matrix for the project YCHP is presented as a separate Chapter 12. Entitlements are based on Yemeni laws (i.e. Constitution, Civil Law and Law no. 21 of 1995 on Land and Real Estate), World Bank OP 4.12 and discussion with MPWH Officials. The entitlement matrix reflects the following broad principles:

- Land acquisition will be carried out under the provisions of Yemeni legislation, with additional provisions to comply with World Bank OP 4.12;
- Consent award or mutual negotiations will be preferred for land acquisition;
- Additional benefits to vulnerable or especially affected people will be provided as lump sum transitional assistance;
- Affected people not having alternative source of livelihood or shelter, will be assisted under the project; and
- Affected community properties will be enhanced / conserved by the project in consultation with the community.

Compensation and other allowances / assistance will be extended to all eligible PAPs in accordance with the Yemeni legislation and World Bank OP 4.12 before taking possession of the acquired land and assets/properties. All activities related to resettlement planning, implementation and monitoring will ensure involvement of women and vulnerable groups. Special allowances and assistance will be provided to eligible PAPs as per the entitlements. All losses, including measures to restore loss of income, will be compensated within the overall budget as per the agreed framework.

### **0.13 Conclusion**

YCHP will affect the agriculture land, livelihood, residential and commercial assets of many people. In order to mitigate the adverse impact of the project on people and properties/assets, various stakeholders were consulted and their suggestions have been incorporated into this RAP. The public consultation process may be continued at different phases of the project planning and implementation to make it more people friendly.

Considering provision of Yemeni legislation and World Bank OP 4.12, the RAP has been prepared with a view to minimize the impact of the project and to improve or to



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at least restore the standard of living of the affected people. The RAP provides the details of impact, entitlement policy framework and comprehensive mitigation measures to ensure that the affected and displaced persons are appropriately resettled and rehabilitated. Apart from social impact and its mitigation measures, institutional arrangements and impact monitoring mechanism for the effective implementation of the project has been described in the RAP.