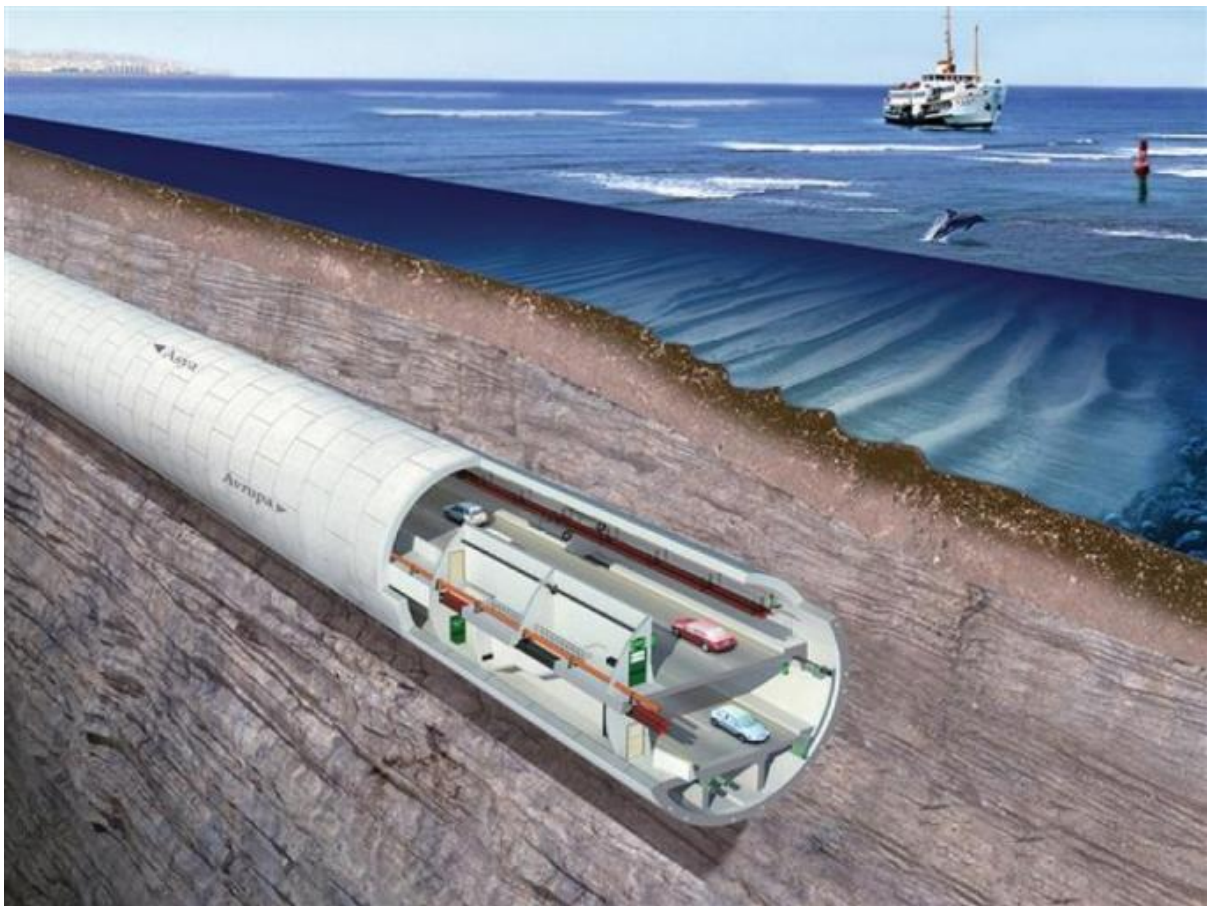


SOCIAL IMPACT ASSESSMENT

TUNNEL LINK BETWEEN THE ISLAND OF GOZO AND MAINLAND MALTA



Marvin Formosa PhD

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PREFACE

In 2016, Malta Transport commissioned a Social Impact Assessment on the possibility that a permanent *tunnel link* is constructed between the island of Gozo and mainland Malta. The herein document is a report of this assignment. It contains an exposition of the findings of the Social Impact Assessment as based on a myriad of primary and secondary sources that included published material, expert opinions, semi-structured interviews, elite interviews, and a survey questionnaire. Data arising from primary was collected during fieldwork carried out in Gozo during the period December 2016 - February 2017.

Heartfelt gratitude goes to the many people who granted me much of their valuable time during interviews to put forward their personal views and insights, as well as those harboured by their respective communities, on the possible and perceived social impact of permanent *tunnel link* between the island of Gozo and mainland Malta. I am also thankful to all those persons who took time to respond to the survey questionnaire.

It is augured that this report leads the Maltese Government to take a more informed policy decision on the possibility that a permanent *tunnel link* is constructed between the island of Gozo and mainland Malta.

Marvin Formosa PhD
3 March 2017

EXECUTIVE SUMMARY

This social impact assessment found stakeholders in Gozitans to be *highly* and *overwhelmingly* in favour towards the building of a permanent tunnel link between the island of Gozo and mainland Malta. As much as 82 per cent of respondents were in favour of this possible permanent development, which matched Vella's (2011) results, and even improves on the results obtained by the Gozo University Grupp (Barry, 2016). This social impact assessment concludes that the proposed permanent tunnel link between the island of Gozo and mainland Malta - *which will not only decrease the travelling time between the two islands, but will also provide commuters with more control on their travelling schedule since the possible unpredictable delays in queuing for the ferry or unavailability of ferry crossing during stormy weather will become obsolete* - has the potential to assuage the following 'drains' experienced by Gozitan society as a result of its double insularity and peripheral geographical status: brain drain, demographic drain, economic drain, and wellbeing drain.

Survey and interview respondents alike perceived the construction of the permanent tunnel link between the island of Gozo and mainland Malta has the potential to lead to (i) decrease substantially the travelling time for Gozitans and Maltese to commute to Malta and Gozo respectively, (ii) improve the quality of life and wellbeing of Gozitans - who for work-, family-, and study- related reasons - are required to visit Malta more than three times a week, (iii) attract more private investment to Gozo, (iv) increase the availability of *quality* jobs in Gozo, as the island is characterised by a higher pro-rata of university and MCAST graduates compared to Malta, (v) enable families who work in Malta to reside in Gozo; (vi) function to increase the occupancy rate of dwellings in Gozo where, in 2011, the occupancy rate scored at just 46 per cent compared to the Malta's rate of 71 per cent, and (vii), reverse the current ageing population trend that Gozo is experiencing and which is projected to intensify in the future. Stakeholders also professed that the tunnel link connecting the island of Gozo and mainland Malta would result in a myriad of positive economic impacts by contributing to (i) a better income and standard of living for Gozitans, and thus, aiding to reverse the higher rates of living-at-risk of poverty in Gozo compared to Malta, (ii) an enhanced local economy, (iii) increases in employment opportunities (v) improvements in investment, development, and infrastructure spending, (vi) higher tax revenues, (vii) superior public utilities infrastructure, (viii) greater opportunities for shopping, (ix) more direct, indirect, and induced spending in Gozo, and (x) new business opportunities. This social impact assessment found that Gozo's residents and entrepreneurial community perceived the proposed tunnel link to have the potential to impart a vast range of social advantages. The tunnel would improve the accessibility between the two islands, by allowing students and Gozitan residents working in Malta to decrease their travelling time to and back from Malta, and hence, enabling them to reside in Gozo all the year round rather than relocating to Malta for the weekdays or even permanently. This would maintain, and even strengthen, the long-established levels of intergenerational familial care that has always been so prevalent and characteristic to Gozo. Other perceived social benefits included facilitating/ enabling visits to recovering relatives at Mater Dei Hospital, legal/social/medical professional appointments in Malta, public/social events, taking up full- or part-time studies at either the University of Malta and Malta College for the Arts, Science and Technology, and parents to take advantage of *quality* job opportunities in Malta.

Fieldwork also uncovered key concerns on behalf of stakeholders about possible the negative implications that may occur during the construction, and following the completion, of a permanent tunnel link between the island of Gozo and mainland Malta. However, this social impact assessment recommends a range of mitigating affects against the above preoccupations and possible risks. These included mitigation recommendations related to issues concerning health and safety, environmental policy, traffic and parking spaces, drainage system and electricity voltage, leisure industry, active citizenship, local council affairs, rural and coastal accessibility, social and medical services, corporate social responsibility, town-planning, and housing policy, taxation, ferry services, and gentrification.

1 INTRODUCTION

Following the setting up of the Society for the Union of the Maltese Islands (SUMI) in the late 1960s, which advocated a permanent link between the island of Gozo and mainland Malta through the island of Comino, the Maltese government's consideration of the possibility of linking the two islands can be traced to the early 1970s (Vella, 2011). Indeed, as early as March 1972 the Maltese government commissioned the Overseas Technical Cooperation Agency of the Government of Japan to carry out a preliminary survey report on a possible permanent link between the two islands (McDonald, 2012). However, nothing was concluded at that time, and for many years the idea was seemingly put under the carpet by subsequent governments. In recent months, however, the idea of a permanent link between the island of Gozo and mainland Malta re-surfaced in no uncertain terms in the public, political and social/mass media arenas. Two options were put forward towards the possibility of linking the island of Gozo and mainland Malta, apart from the third possible option of leaving everything 'business as usual' by maintaining the Gozo-Malta link through the ferry service. The two options included 'linking both islands by means of a bridge' and 'linking both islands through the tunnel sub-seabed scenario'. In February 2015, the Gozo Business Chamber and Transport Malta commissioned a study on the economic and financial feasibility of alternative solutions towards providing connectivity between the island of Gozo and the mainland Malta (Cordina, 2015). This study concluded that the 'tunnel sub-sea-bed scenario' is the most effective and viable alternative, an option that was endorsed by the Maltese government in March 2016 (Borg, 2016). As per government policy, such a state of affairs necessitated a social impact assessment on the impact of this possible structural enterprise, whose results and conclusions are found in the herein report.

This social impact assessment was guided by two socio-moral objectives. The first hinged on the Prime Minister Muscat's assertion that the proposed tunnel link between the island of Gozo and mainland Malta requires 'Gozo leadership' (Agius, 2016) since, after all, a tunnel link between the island of Gozo and mainland Malta will have an immense impact on Gozitan cultural lifestyle, community living, quality of life, educational opportunities, economic life chances, business interests, environment surroundings, and health life expectancies. Indeed, this social impact assessment provides Gozitan residents with an opportunity to voice their views, opinions, and assessments towards this project. The data herein provides feedback to project planners by not only voicing stakeholders' approval or otherwise, but also in suggesting monitoring and mitigation recommendations. The second revolved around one consistent theme in 'island studies', in that all island habitats depend on networks with the world outside - which led to the following forerunning questions: What will be the social impact of a permanent tunnel link between the island of Gozo and mainland Malta on the Gozitan residents? Are Gozitan residents united in expressing either concern, disapproval, acceptance, consent to this 'fixed link'? The key goal of this social impact assessment was therefore to uncover the *a priori* opinions of major stakeholders - whether holding cultural, political, or entrepreneurial interests - on the possible social impacts resulting from the building of a tunnel link between the island of Gozo and the mainland Malta. Hence, this Social Impact Assessment did not aim to pronounce judgement on either the most viable technical and geological scenario for building the tunnel link, or the far-reaching economic impacts (and financial feasibility) that this tunnel link may have on Malta's and Gozo's social fabric. Such objectives have been researched in previous impact assessments, and conclusions have already been drawn (see McDonald, 2012; Cordina, 2015).

2 Social Impact Assessments

As Misra (2004) pointed out, social impact assessments are premised on the idea that development interventions have social consequences, and therefore, it is necessary that governments understand the effects of their decisions before policies are implemented and have emotional impacts upon communities. Indeed, a social impact assessment constitutes a systematic process for identifying and managing the effects of infrastructure projects on local communities, and is without doubt a requirement of private investors and donor organisations (McDonald, 2012). While social impact assessments are normally undertaken within relevant national environmental policy frameworks, such studies are not restricted to this, and the Social Impact Assessments as a process and methodology has the potential to contribute greatly to the planning process. The function of social impact assessments is to render projects responsive to social development concerns, giving actors a voice in decisions affecting the future of their communities, whilst minimising and compensating for adverse social impacts. Hence, social impact assessments can be understood in terms of efforts to assess or estimate, in advance, the social consequences that are likely to follow specific government interventions. It is a process that provides a framework for prioritising, gathering, analysing, and incorporating social information and participation into the design and delivery of novel policy decisions. Social impact assessments ensure that policy interventions are informed and take into account the key relevant social issues, and incorporate a participation strategy for involving a wide range of stakeholders. At this point the definition of ‘social impact/s’ is central to the elicited assessment data. This study defined ‘social impact/s’ as the

...consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organise to meet their needs and generally cope as members of society. The term also includes cultural impacts involving changes to the norms, values and beliefs that guide and rationalise their cognition of themselves and their society.

Burdge, 2004 : 3

Thus, social impact assessments include the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions, and any social change processes invoked by those interventions (International Association for Impact Assessment, 2003). Key principles guiding social impact assessments include

- *involving the diverse public* - identify and involve all potentially affected groups and individuals;
- *analysing impact equity* - identify who will win and who will lose, and emphasise vulnerability of under-represented groups;
- *focusing the assessment* – deal with the issues and public concerns that really count not those that are just ‘easy to count’;
- *identifying assumptions and define significance* - describe how the Social Impact Assessment is conducted, what assumptions are used and how significance is determined;
- *providing feedback on social impacts to project planners* - identify problems that could be solved with changes to the proposed action or alternatives;

- *using Social Impact Assessment practitioners* - trained social scientists employing social science methods will provide the best results;
- *establishing monitoring and mitigation programmes* - manage uncertainty by monitoring and mitigating adverse impacts;
- *identifying data sources* - use published social scientific literature, secondary data and primary data from the affected area; and
- *planning for gaps in data* - make clear any incomplete or unavailable information and the reasons why this could not be obtained;

Interorganizational Committee on Guidelines and Principles
for Social Impact Assessment, (1994)

Indeed, good practice in social impact assessment is based upon the premise that social, economic and biophysical impacts are inextricably interconnected, and that change in any of these domains will lead to changes in other domains. Social impact assessments must, therefore, develop an understanding of the impact pathways that are created when change in one domain impacts other domains (International Association for Impact Assessment, 2003). The main types of social impact that occur as a result of these project-related changes can be grouped into five overlapping categories:

- *lifestyle impacts* - on the way people behave and relate to family, friends and cohorts on a day-to-day basis;
- *cultural impacts* - on shared customs, obligations, values, language, religious belief and other elements which make a social or ethnic group distinct;
- *community impacts* - on infrastructure, services, voluntary organisations, activity networks and cohesion;
- *amenity/quality of life impacts* - on sense of place, aesthetics and heritage, perception of belonging, security and liveability, and aspirations for the future; and
- *health impacts* - on mental, physical and social wellbeing, although these aspects are also the subject of health impact assessment;

International Association for Impact Assessment, (2003)

The subsequent section provides a brief overview of the methodological design guiding the carrying out of the herein social impact assessment which was carried out independently from an economic cost-benefit and environment impact assessments.

Key social impacts in the study of tunnel links between islands generally include the effects of improved accessibility and reduced journey times on communities in both Malta and Gozo, including economic development benefits, tourism, access to education and access to healthcare. The direct benefits of generating employment during the construction phase are also considered of primary importance, whereby the understandings and interpretations of stakeholders and communities (captured through mixed-method research designs) are collated and analysed as part of the impact assessment procedure. This is because options for tunnel linkages between a mainland island and its associate island tend to impact the socio-economic fabric in different ways, so that future project development should consider the differential performance of such option.

3 Research Design

The primary aim of social impact assessments is to encourage the positive elements of the impact of the proposed action, as well as to investigate and mitigate the unwanted effects on the groups of people, and on communities and societies. Hence, social impact assessments are used to minimise losses and maximize the benefits of interventions upon both small and large social groupings. Following Burdge's (2004) theory of and methodology for social impact assessments, this study included three major phases (box 1).

Box 3.1: Phases of Social Impact Assessment Malta/Gozo Tunnel Link Option
<p>Phase I: Profiling</p> <p><u>Public involvement.</u> Developing and implementing an effective public involvement plan to involve all interested and affected stakeholders.</p> <p><u>Identification of alternatives.</u> Describing the proposed action and reasonable alternatives to it, including the no action alternative.</p> <p><u>Profile of baseline condition.</u> Documenting the relevant human environment/area of influence of the proposal and the existing social conditions and trends (using the characteristics and variables described previously).</p>
<p>Phase II: Scoping</p> <p><u>Scoping.</u> Identify and prioritise the range of likely social impacts through a variety of means, including discussion or interviews with numbers of all potentially affected.</p> <p><u>Projection of estimated effects.</u> Analyse and predict the probable impacts of the proposal and the alternatives against baseline conditions (with versus without the action).</p> <p><u>Prediction and evaluation of responses to impacts.</u> Determine the significance of the identified social impacts to those who will be affected.</p> <p><u>Estimate indirect and cumulative impacts.</u> Identify the subsequent, flow-on effects of the proposal, including the second/third order impacts and their incremental impacts when added to other past, present and foreseeable current activities.</p>
<p>Phase III: Mitigation</p> <p><u>Changes to alternatives.</u> Recommend new or changed alternatives and estimate or project their consequences for affected and interested stakeholders.</p> <p><u>Mitigation.</u> Develop and implement a mitigation plan, in order of preference to firstly avoid, secondly minimise and thirdly compensate for adverse impacts.</p> <p><u>Monitoring.</u> Develop and implement a monitoring programme to identify deviations from the proposed action and any important unanticipated impacts.</p>

3.1 Phase I: Profiling

The objectives of the *first* phase was achieved through secondary methods of research, which entailed the profiling of social and mass media accounts related to the tunnel link between mainland Malta and the island of Gozo, as well as gathering secondary data - most notably, the various reports published by the National Statistics Office (2014, 2015), and studies on the Gozitan cultural and socio-economic fabric (e.g. Azzopardi and Mann, 2007; Vella, 2011; Briguglio, 2007, 2016). This enabled the establishment of a detailed and realistic plan for effective public/stakeholder involvement, a detailed understanding of the proposed action, and the relevant human area that will experience an impact in the event that the action materialises.

3.2 Phase II: Scoping

The intentions of the *second* phase were achieved through primary methods of research. Primary data sources included the implementation of a mixed-method research design that included exploratory-interview investigation and questionnaire research.

Exploratory research

Exploratory research consists in “broad-ranging, purposive, systematic, prearranged undertaking designed to maximise the discovery of generalizations leading to description and understanding of an area of social or psychological life” (Strebbins, 2001 : 3). Such research was conducted through the ‘fieldwork’ strategy, which involved the researcher observing and recording behaviour and events in their natural setting, thus going physically on-site in order to immerse him/herself in the contextual background. Although conversational probes elicited a rich variety of data, the key method of data collection utilised during the fieldwork consisted of ‘non-directive’ interviews that included the following enquiries:

- What are your and the community’s views on the establishment of permanent tunnel link between the island of Gozo and mainland Malta?
- What are the key issues driving your and the community’s perceptions on this possible development of establishing a permanent tunnel link?
- What are you and community mostly concerned about if the tunnel link materialises?
- What do you think are the key social, cultural, and economic benefits associated with the establishment of a permanent tunnel link?
- What the key risks and drawbacks, as perceived by yourself and the community, on the possibility of the establishment of permanent tunnel link?
- Do you and the community anticipate any change in the following social attributes as the result of the establishment of permanent tunnel link?

In non-directive interviews, the interviewer refrains from offering opinions, avoids expressions of approval and disapproval, and often, will spend some time trying to establish rapport with the interviewee prior to the interview. This is usually done by simply talking informally before the interview proper starts. Once the interviewee feels that they are not going to be criticised or judged, that they can talk freely, it generally follows that they will talk with honesty and openness. In locating informants for interviews this social impact assessment opted for both convenience and purposeful sampling. On one hand, convenience sampling is a specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in study (Emmel, 2013). It is a type of sampling where the first available primary data source will be used for the research without additional

requirements. This method involves getting participants wherever one can find them and were typically convenient. In convenience sampling, no inclusion criteria identified prior to the selection of subjects. On the other hand, purposive sampling is a sampling technique in which researcher relies on his or her own judgment when choosing members of population to participate in the study (Maxwell, 2012). It is a non-probability sampling method and it occurs when elements selected for the sample are chosen by the judgment of the researcher. All stakeholders taking part in the interviews were bestowed strict anonymity and confidentiality status, and included:

- Gozo residents.
- Gozitan students studying in Malta: Post-secondary and tertiary students who follow a course of study, either full- or part-time, in Malta.
- Gozitan residents who work in Malta who need to commute at least three times a week.
- Business operators: Gozo includes various business companies that include hotels and various accommodation residences, mall shops, restaurants, artisan food, groceries, etc.

Questionnaire research

Survey research encompasses any measurement procedures that involve asking a number of questions to a sample of population. The population herein consisted of residents in Gozo who were each asked ten questions so as to ascertain each respondents' attitude, viewpoint, and perception on the proposed tunnel link between the island of Gozo and mainland Malta. In defining the number of cases to be researched in its extensive phase, this study utilised a statistical formula devised by the United States' *National Education Association*:

$$s = \frac{\chi^2 NP (1 - P)}{d^2 (N - 1)} + \chi^2 P (1 - P)$$

where p is the population estimate, χ^2 is the table value for 1 degree of freedom (3.841), N is the population size, P the population proportion, and d the degree of accuracy (Sarantakos, 2013). On the basis that, in 2013, Gozo included 31,446 residents, as per National Statistics Office's (2015) latest statistics, the questionnaire survey targeted 350 cases, with the final number of respondents reaching 247, a 71 per cent response rate (table 3.1).

Table 3.1: Stratified sample for questionnaire research

Locality	Total Pop.	Targeted sample	Actual sample	Locality	Total Pop.	Targeted sample	Actual sample
Fontana	888	10	8	Għajnsielem	2,656	32	21
Għasri	1,205	15	13	Għarb	421	6	5
Munxar	1,079	13	9	Nadur	3,959	48	30
Qala'	1,826	22	15	San Lawrenz	627	7	2
Ta' Kerċem	1,744	21	9	Ta' Sannat	1,852	22	9
Victoria	6,229	75	48	Xagħra	3,968	48	38
Xewkija	3,135	38	28	Żebbuġ	1,857	22	9
Refused to answer		--	3				

In locating the questionnaire's respondents, the study used stratified-convenience/purposive sampling where each locality included a number of respondents according to its number of residents. The questionnaire's queries are listed in box 3.2 (in both the English and Maltese languages)

Box 3.2
Questionnaire Schedule: Malta-Gozo Tunnel Link Option

1. Gender: Male Female
2. Age: 18 – 29 30 – 44 45 – 59 60+
3. Marital status: Single / Never married Married / Civil Union
 Separated / Divorced Widowed
4. Parenthood status: Positive, has children Negative, no children
5. Last/Current educational attainment: No schooling Primary education
 Secondary education Post-secondary
 Tertiary education
6. Locality of residence: _____
7. Employment: Student Not employed
 Employed Pensioner
8. Are you in favour of a permanent tunnel link between Gozo and Malta? Yes No
9. Which **two advantages** would a permanent tunnel link between Gozo and Malta **mostly** bring?
- decreasing commuting/travelling times between islands
 - enabling more Gozitan residents to take up studies in Malta
 - encourage more frequent visits to relatives living in Malta
 - enabling Gozitan parents who work in Malta to provide more quality time to children
 - attracting more private investment to Gozo
 - increasing the availability of *quality* jobs in Gozo
 - enabling families who work in Malta to reside in Gozo
 - smoother accessibility between islands' two hospitals
 - quicker accessibility to Malta International Airport
 - easier for Maltese to make use of Gozo's tourist services
 - None
10. Which **two disadvantages** would a permanent tunnel link between Gozo and Malta **mostly** bring?
- adverse effects on the Gozitan environment
 - negative effects on the sea-bed environment
 - spoiling the charm and tranquillity of Gozo
 - removing the ferry crossing which is an attraction in itself
 - depriving Gozo of its unique identity
 - bringing in more tourists than Gozo can deal with
 - increasing taxation
 - higher tolls than the present ferry prices
 - increasing the number of cars in Gozo
 - leading to further construction of buildings in Gozo
 - None

Tabella 3.2
Skeda tal-Kwestjonarju: Opzjoni tal-Konnessjoni permezz ta' Mina bejn Malta u Għawdex

1. Ġeneru: Raġel Mara
2. Età: 18 – 29 30 – 44 45 – 59 60+
3. Stat ċivili: Single / Qatt ma żżewwġ Miżżewwġ / Unjoni Ċivili
 Separat / Divorzjat Armel/la
4. Stat ta' ġenitur: Pożittiv, bit-tfal Negattiv, bla tfal
5. Livell edukattiv milhuq l-aħħar/attwali: Ebda edukazzjoni Edukazzjoni primarja
 Edukazzjoni sekondarja Post-sekondarja
 Edukazzjoni terzjarja
6. Post ta' residenza: _____
7. Impjeg: Student Mhux impjegat
 Impjegat Pensjonant
8. Inti favur konnessjoni permanenti permezz ta' mina bejn Malta u Għawdex? Iva Le
9. Liema **żewġt** vantaġġi **l-izjed** ġġib magħha konnessjoni permanenti permezz ta' mina bejn Malta u Għawdex?
- tnaqqis tal-ħinijiet tal-ivvjaġġar bejn il-gżejjer
 - aktar residenti Għawdxin ikunu jistgħu jibdew jistudjaw Malta
 - tteġġi ta' zjarat aktar frekwenti lil qraba li jgħixu Malta
 - ġenituri Għawdxin li jaħdmu Malta jkunu jistgħu jagħtu aktar quality time lil uliedhom
 - attirar tal-investment privat f'Għawdex
 - zieda tad-disponibbiltà ta' impjegi ta' *kwalità* f'Għawdex
 - familji li jaħdmu Malta jkunu jistgħu jirrisjedu Għawdex
 - aċċessibbiltà bla xkiel bejn iż-żewġ sptarijiet tal-gżejjer
 - aċċessibbiltà aktar malajr għall-Ajruport Internazzjonali ta' Malta
 - aktar faċli biex il-Maltin jagħmlu użu mis-servizzi turistiċi ta' Għawdex
 - l-ebda
10. Liema **żewġt** zvantagġi **l-izjed** ġġib magħha konnessjoni permanenti permezz ta' mina bejn Malta u Għawdex?
- effetti negattivi fuq l-ambjent naturali Għawdxin
 - effetti negattivi fuq l-ambjent ta' qiegħ il-baħar
 - irvinar tal-faxxinu u t-trankwillità ta' Għawdex
 - tneħħija tal-ivjaġġar bil-vapur li huwa attrazzjoni fih innifsu
 - privazzjoni ta' Għawdex mill-identità unika tiegħu
 - aktar turisti milli jkun jista' jiġġestjona Għawdex
 - zieda fit-tassazzjoni
 - nolijiet oghla mill-prezzijiet attwali tal-vapur
 - zieda fin-numru ta' karożzi f'Għawdex
 - aktar kostruzzjoni ta' binjiet f'Għawdex
 - l-ebda

The completion of the second phase succeeded in identifying and prioritising the range of likely social impacts on stakeholders, anticipating the probable impacts of the proposed action, foreseeing and evaluating responses to the proposed action, determining the significance of the identified social impacts to those who will be affected, and estimate subsequent, flow-on effects of the proposed action, including second/third order impacts and their incremental impacts when added to other past, present, and foreseeable, current activities.

3.3 Phase III: Mitigation

The *third* phase of social impact assessment involved locating changes to alternatives, and recommendations for mitigation and monitoring. It focused on developing alleviating and management options for the social impacts elicited in the probability that the permanent tunnel link is approved and complete by the Maltese government. Inquires included:

- Is there anything the government could do to lessen people's concerns?
- If this project was to proceed and completed, what conditions would the community wish to see implemented to make it acceptable?
- What monitoring can be done so that the establishment of the permanent tunnel link between Gozo and Malta does not impact negatively upon the daily lives of residents?
- What would give the community confidence that this project is being managed well, both in the near and long-term future?

It is noteworthy that this phase of the social impact assessment was not conducted separately from the first two phases as the third phase's question schedule formed part of the full interview conducted with all stakeholders.

4 THE BACKGROUND CONTEXT

4.1 Gozo: A socio-economic atlas

4.1.1 Double insularity

Gozo is the second largest island in the Maltese Archipelago, situated to the Northwest of mainland Malta, and having a land area of 67 square kilometres (National Statistics Office, 2015). The island is rural in character and, compared to the main island Malta, less developed. Gozo has been inhabited since 5000 BC, when farmers from nearby Sicily crossed the sea to the island. Due to the discovery of similar pottery found in both places from the Ghar Dalam phase, it has been suggested that the first colonists were specifically from the area of Agrigento, though this is not certain. These people are thought to have first lived in caves on the outskirts of what is now known as San Lawrenz. This site consists of one huge cave separated into two by a natural column and a man-made wall. Pottery shards unearthed on this site are of a purer pedigree than any other pottery found elsewhere in the Maltese Islands, which suggests that Gozo might have been settled earlier than Malta (Gozo Tourism Association, 2017). Indeed, Gozo possesses an unexpectedly enormous, unique and rich cultural heritage spanning the good part of 7000 years. The various civilisations that have occupied the Maltese islands have influenced Gozitan culture developing unmatched characteristics ranging from language, gastronomy and the way of life to physical artefacts and archaeological sites.

Gozo is famed for its character and places of interest. Some of these places of interest include the Calypso Cave and the Ġgantija Neolithic temples which are among the oldest surviving man-made structures. In Vella's words,

The island's attraction lies in its tranquillity, affable people, and fantastic scenery and last but not least, the superb scuba diving that one can practice all-year around in its crystal clear waters. Amongst the top tourist attractions and destinations, one can find the Azure Window at Dwejra which is a natural arch created by rough seas over the years. This site is imply breath-taking and one can't get any more picturesque than this. The Ġgantija temples at Xagħra are another top spot in Gozo. These temples are the oldest free standing structures in the world and they were erected around 3600 B.C. It is important to highlight the fact that a visit to Gozo is not complete without a tour to the Citadel. The latter is Gozo's main landmark and it is also the most visited historical sire in Gozo. The Citadel is located in Victoria and it is the Island's oldest settlement and main historical site as well. This particular fortification was mostly built during Roman rule and it was also destroyed and rebuilt twice. Its fortifications date back from 1500 B.C.

Vella, 2011 : 46

Due to its small geographical size, Gozo has always been complex net of family connections extending across the island. This has created a trusting society where people can rely upon each other, and where help is always there if needed. The Catholic Church also plays a very important role in the island's social and cultural life. Parish priests remain a significant figure in society, and the parish church is at the core of feast days which take place nearly every weekend in towns and villages throughout summer, and which are the most important events of Gozo's social and cultural calendar.

The concept of ‘double insularity’ has always been a consistent and key notion in any matter concerning Gozo, given that it is a small island situated on the periphery of and dependent on the another small island of Malta (Azzopardi & Mann, 2007; Vella, 2007; Vella, 2011). The main characteristics of double insularity includes:

...small size of population and limited access as well as limited resources, remoteness from main commercial centres, isolation and low accessibility...the inhabitants of islands depend on air, or sea transport for exports, passenger travel and the provision of goods.

GEOSPECTS, cited in Vella, 2011 : 2

As one expects, the double insularity of Gozo is frequently highlighted fact in the mass media, as social and political columnists, politicians, and the general public alike, put forward their viewpoints. According to Vassallo (2015), Gozo’s double insularity works against the island in many ways, and has often been touted as a huge disincentive to business to invest in the island, with Agarwal and Shaw (2007 : 86) noting residents believe that “they have been left behind and somewhat neglected in terms of economic development and political assistance compared to [Malta]”. Moreover, most of Malta Members of European parliament have spoken on this issue in the European parliament in recent years (see Gozonews, 2013, 2016; Maltatoday, 2016; Malta Independent Online, 2016a, 2016b). The standard tone of discussion is that due to double insularity the Gozitan economy is continuously struggling to get its fair share of employment and wealth levels. The Gozitan economy is clearly facing difficulties

...in generating an adequate demand for jobs and in keeping employment levels at comparable proportions to Malta’s...Whatever meagre employment creation is taking place in Gozo is not, in general, taking place in higher-value-added sectors. This cocktail of unfriendly developments, if unattended, will push Gozo’s reality further away from Malta’s level, and pace, of development.

Mercieca, 2011 - online version

However, as Vella (2011) noted, Gozo’s double insularity works against the island in many ways, both negative and positive, even though many often Gozo has been inadvertently advertised as a huge disincentive for business to invest in the island. Indeed, in many instances it is the hardships that Gozitans students and workers experience in having to commute daily to mainland Malta that is highlighted in most takes on Gozo’s double insularity. Taken together, it is not difficult to understand how all this generated a wish for a better structural link between the island of Gozo and mainland Malta since, for most Gozitans, the ferry crossing is an inadequate and too time-consuming form of transportation. An editorial published at the beginning of this decade argued as follows:

... Without doubt, a permanent road link is required between Malta and Gozo, but perhaps the most important consideration will be the economic impact that such a tunnel would have on various entities and Gozo itself as a destination. The very delicate task of assessing the pros and cons of the proposed sub-sea road link can determine whether Gozo will be able to retain its charm while being permanently connected to Malta for the first time in living memory.

The Malta Independent, 2011 - online version

Indeed, the very delicate task of assessing the *perceived* pros and cons of the proposed sub-sea road is precisely the crucial aim of this social impact assessment.

4.1.2 Population

The 2011 National Census reports that Gozo's population increased from 19,790 in 1901 to 31,375 in 2011 (National Statistics Office, 2012). In more recent years, the population of Gozo increased from 29,026 to 31,007 during the 1995 - 2005 period (6.8 per cent growth rate) and from 31,007 to 31,446 in the 2005-2013 period (1.4 per cent growth rate) (ibid., 2015). Comparatively, mainland Malta's population registered a 6.8 and 5.3 per cent growth rate in the periods 1995 - 2011 and 2005 - 2013 respectively.

At 31 December 2013, the population of the island of Gozo and mainland Malta reached 31,446 and 393,938. Hence, the total population of the Maltese Islands reached 425,384. This means that the population of Gozo was about 7.4 per cent and 8.0 per cent of that of the Maltese Islands and mainland Malta respectively. In 2013, Gozo's gender distribution for males and females was 15,624 and 15,822 respectively. In 2011, the population density of Gozo was 457 persons per square kilometre in 2011, compared to a 1,325 and 1,566 persons per square kilometre for the Maltese Islands and mainland Malta respectively.

Gozo's population is relatively skewed in favour of older persons, as the largest number of residents was found in the 50-59 and 60-69 age brackets (4,803 and 4,457 persons respectively), and which is likely to exacerbate as the birth-rate in Gozo was lower than that of Malta (table 4.1 and figure 4.1).

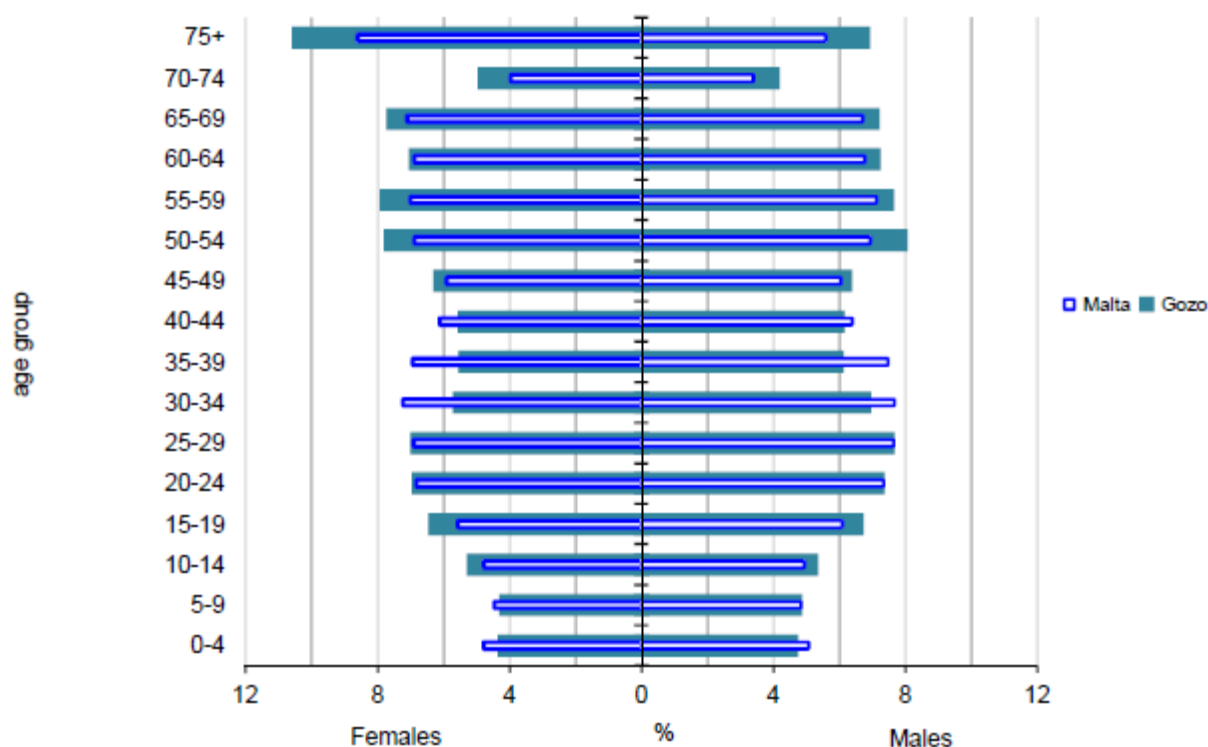
Table 4.1: Total population by region, age group and sex: 2013 (Malta and Gozo)

	Malta			Gozo		
	Males	Females	Total	Males	Females	Total
0-9	19,493	18,235	37,728	1,430	1,301	2,731
10-19	21,687	20,389	42,076	1,817	1,786	3,603
20-29	29,479	27,107	56,586	2,280	2,139	4,419
30-39	29,816	27,928	57,744	1,971	1,712	3,683
40-49	24,466	23,713	48,179	1,888	1,807	3,695
50-59	27,675	27,394	55,069	2,385	2,418	4,803
60-69	26,506	27,576	54,082	2,188	2,269	4,457
70-79	12,388	15,156	27,544	1,084	1,439	2,523
80-89	4,748	8,269	13,017	509	822	1,331
90+	542	1,371	1,913	72	129	201
Total	196,800	197,138	393,938	15,624	15,822	31,446

Source: National Statistics Office (2015)

In comparison, for mainland the largest number of residents was found in the 30-39 and 20-29 age brackets (57,744 and 56,586 persons respectively).

Figure 4.1: Population by region and age group: 2013



Other indications that Gozo is an ageing population include the island’s average age and ageing index. In 2001, the Gozitan population registers an average age of 41.6, higher than both the figures of 40.5 and 40.4 for the Maltese Islands and mainland Malta respectively. In the same year, Gozo’s ageing index (the ratio of people aged 65-plus to children aged 14 and under) and percentage of persons aged 65-plus were 125.9 and 18.3 respectively, both figures being higher than both the Maltese Islands and mainland Malta (see table 4.2)

Table 4.2: Average age and Ageing Index by locality and 65+ age group (2011)

Region	Average Age	65+ (%)	Ageing Index
Maltese Islands	40.5	16.3	110.3
Malta	40.4	16.1	109.1
Gozo	41.6	18.3	125.9

Source: National Statistics Office, (2014).

In 2011, Gozo included 25,070 dwellings, out of which 11,630 were occupied (46 per cent) - compared to an occupancy rate of 71 per cent for mainland Malta - with 7,444 used for seasonal or secondary use (29.7 per cent), and 5,996 completely vacant (23.9 per cent). Occupied dwellings constituted terraced houses (11,720), semi-detached houses (1,264), fully-detached houses (576), maisonette/ground-floors (2,144), flats/penthouses (8,780), semi-/fully-detached farmhouse (392) and other (194).

4.1.3 Education

The 2011 National Census reported that the average literacy rates for the island of Gozo was 93.8 per cent, compared to the figure of 93.6 per cent for mainland Malta.

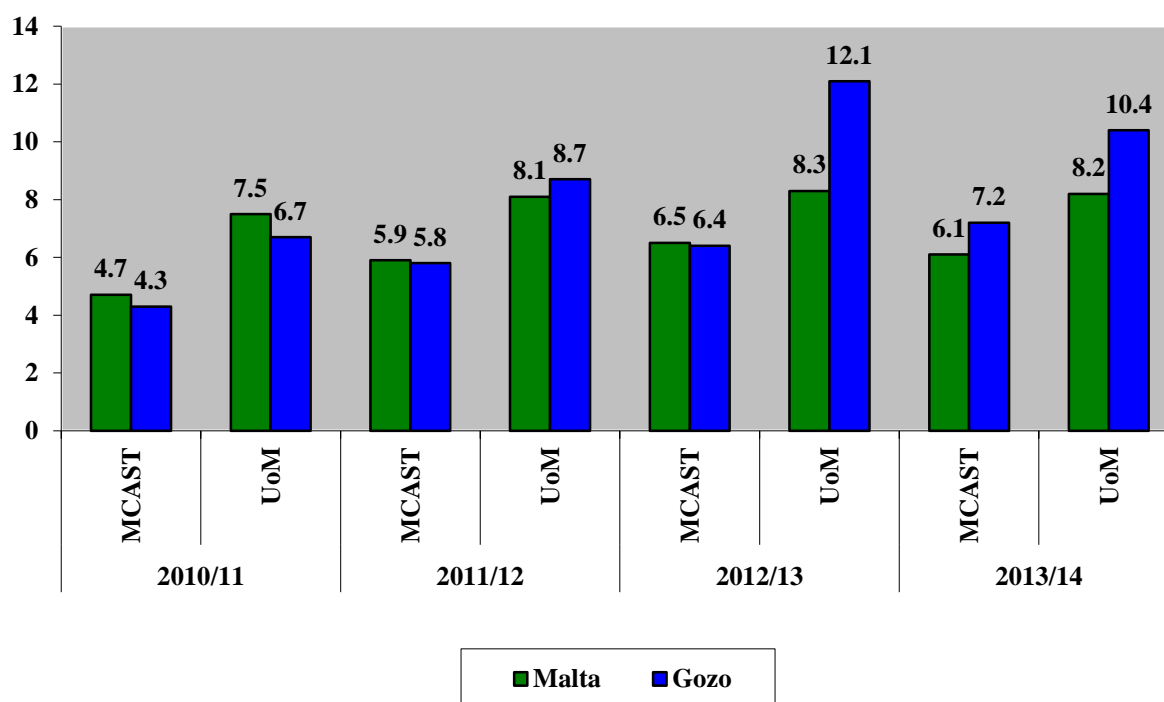
Table 4.3: Population aged 15 and over by highest level of education by sex

Locality and sex	No schooling	Primary	Lower Secondary	Upper Secondary	Post-Secondary	Tertiary
Malta						
Males	2,000	29,446	74,914	32,342	11,874	25,356
Females	3,948	41,788	70,725	31,734	6,918	24,639
Total	5,948	71,254	145,639	64,076	18,792	49,995
Gozo						
Males	156	2,695	5,694	2,341	659	1,707
Females	326	3,692	4,898	2,343	416	1,900
Total	482	6,387	10,592	4,684	1,075	3,607

Source: National Statistics Office, (2012).

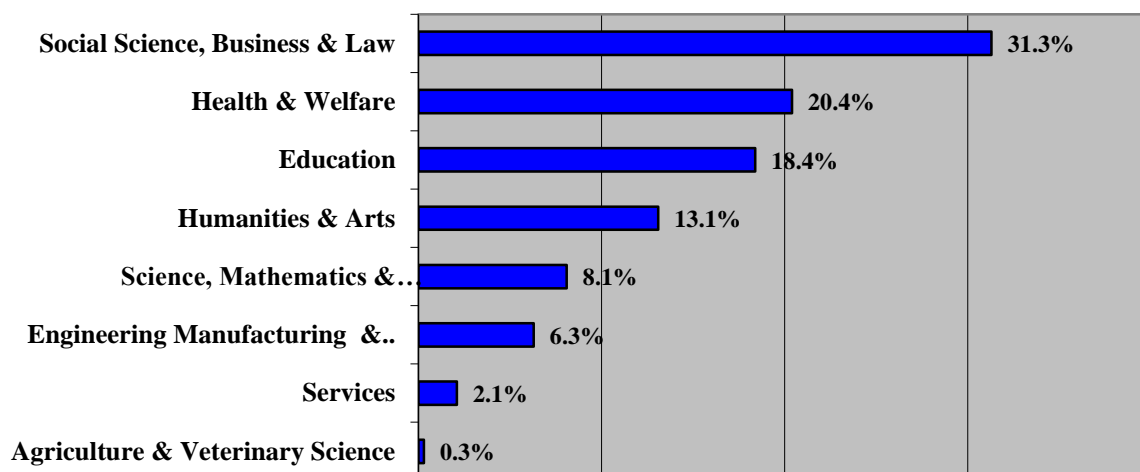
The majority of Gozitan residents hold a Lower Secondary level of education (table 2.4). However, the number of University of Malta and Malta College of Arts, Science and Technology (MCAST) graduates per thousand population has more than doubled between 2010 and 2014 in Malta and Gozo, but the latter locality has registering a higher exponential rate of increase. Figure 4.2 demonstrates clearly that in relative terms, there were more Gozitan graduates than Maltese during the 2013/14 academic year at both MCAST and University of Malta.

Figure 4.2: Graduates per thousand population



Since 2010, there were about 1,120 Gozitan students following degree programmes at the University of Malta. As Figure 4.4 shows, during the period 2010-2014 some 70 per cent of Gozitan students studied subjects related to commerce, law, education, and health.

Figure 4.3:
Gozo residents following University of Malta courses by field of study (2010 - 2014)



Tables 4.4, 4.5 and 4.6 demonstrate the increasing number of Gozo residents following University of Malta and MCAST courses on a full- and part-time basis by academic year and year of course.

Table 4.4: Gozo residents following University of Malta courses on a full-time basis by academic year and year of course

	Course Year					Total
	1	2	3	4	5	
2010/11						
Males	131	77	44	26	4	282
Females	176	92	112	39	5	424
Total	307	169	156	65	9	706
2011/12						
Males	135	89	62	28	2	316
Females	212	121	79	68	5	485
Total	347	210	141	96	7	801
2012/13						
Males	143	84	70	32	2	331
Females	226	139	100	43	6	514
Total	369	223	170	75	8	845
2013/14						
Males	160	79	75	29	8	351
Females	204	143	108	44	5	504
Total	364	222	183	73	13	855
2014/15						
Males	158	90	58	27	6	339
Females	251	117	111	56	4	539
Total	409	207	169	83	10	878

Source: National Statistics Office, (2015)

Table 4.5: Gozo residents following University of Malta courses on a part-time basis by academic year and year of course

	Course Year					Total
	1	2	3	4	5	
2010/11						
Males	56	33	10	3	3	105
Females	78	61	18	3	2	162
Total	134	94	28	6	5	267
2011/12						
Males	48	42	20	1	5	116
Females	112	48	42	4	3	209
Total	160	90	62	5	8	325
2012/13						
Males	63	44	33	7	2	149
Females	81	93	30	14	4	222
Total	144	137	63	21	6	371
2013/14						
Males	56	52	10	1	9	128
Females	126	49	15	5	16	211
Total	182	101	25	6	25	339
2014/15						
Males	38	31	18	1	4	92
Females	61	62	19	5	3	150
Total	99	93	37	6	7	242

Source: National Statistics Office, (2015).

Table 4.6: Gozo residents in full-time vocational education in Malta by academic year and MQF level

	Course Year					Total	
	1	2	3	4	5		
2010/11							
Males	16	7	31	31	56	15	156
Females	1	4	18	14	14	1	52
Total	17	11	49	45	70	16	208
2011/12							
Males	11	3	30	26	51	24	145
Females	1	3	10	14	14	1	43
Total	12	6	40	40	65	25	188
2012/13							
Males	10	2	32	54	58	17	173
Females	1	-	13	15	23	3	55
Total	11	2	45	69	81	20	228
2013/14							
Males	2	4	19	74	52	28	179
Females	-	1	13	16	28	3	61
Total	2	5	32	90	80	31	240
2014/15							
Males	7	1	23	71	47	23	172
Females	-	8	7	16	27	13	71
Total	7	9	30	87	74	36	243

Notes:

1. Data from the Institute of Tourism Studies in respect of 2010/11 is not available.
2. Data does not include students following programmes that are not part of the Malta Qualifications Framework (MQF).

Source: National Statistics Office, (2015)

4.1.4 Economy

In 2014, the Gozitan GDP amounted to €409.9 million, whereas that of the Maltese Islands amounted to €8106.1 million. This means that the share of GDP generated in Gozo was 5.1 per cent, and that the proportion of Gozo's GDP was lower than the population proportion (National Statistics Office, 2015). According to Briguglio,

This could be real or could be due to the possibility that the informal economy in Gozo is relatively larger than that of Malta. The share of Gozo's GDP has tended to decrease slightly since 2009...due to faster growth rate in Malta. However, agriculture, construction and real estate in Gozo generate a proportionately higher contribution to the economy of the island when compared to the share of these sectors in the economy of mainland Malta.

Briguglio, 2016 : 15

It is noteworthy that Gozitan households were, in 2013, €2,000 poorer than the Maltese. Compared to the average Maltese household which had a disposable income of €23,607, that of a Gozitan household amounted to €21,917.

Table 4.7: Household disposable income by region/district and year (average per household (€))

	2009	2010	2011	2012	2013
MALTA	21,395	21,149	21,527	22,379	23,498
Malta	21,578	21,299	21,639	22,525	23,627
Gozo and Comino	19,188	19,335	20,169	20,618	21,917

Source: National Statistics Office, (2015)

Tourism, which contributes to the economy of Gozo more than it does to the economy of Malta, is part of the 'wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities' and 'arts, entertainment and recreation; repair of household goods and other services industries'. Hence, Briguglio (2016 : 15) concluded that "although overall the share of GDP per capita is lower in Gozo than it is in Malta, the share of these three broad industry groupings is relatively higher in Gozo per capita". In 2014, Gozo's GDP per capita was about €13,000, about 69 per cent of Malta's. For Briguglio, this could be "partly explained by the fact that wage rates per hour in Gozo tend to be lower than those earned in Malta in any given industry and also because the higher dependence on agriculture, construction and tourism is likely to translate itself into a higher proportion of low paid jobs" (Briguglio, 2016 : 15). Briguglio (2016) calculated that the average full-time employment between 2010 and 2014 was 154,000 for the Maltese Islands, of which 9.3 thousand were employed in Gozo, and that whilst the employment share of Gozo was 6.1 per cent of mainland Malta, this is lower than the proportion of population. Moreover, in Gozo "public sector employment is almost one-and-a-half times as large in relative terms, as that of Malta", and "has tended to increase at a faster rate than that of Malta" (ibid. : 16). Indeed, "public sector employment between 2010 and 2014 grew faster than private sector employment in Gozo" though "overall, in Gozo, the growth of employment was slower than Malta's" (ibid.). Other noteworthy conclusions for the state of Gozitan economy for the years 2010-2014, as concluded in Briguglio's paper, are the following (Briguglio, 2016 : *passim*):

- The proportion of self-employed workers in Gozo was markedly higher than that of Malta.
- The share of part-time employment as a primary job was higher in Gozo when compared to Malta as a percentage of all those in employment as primary job.
- More women than men worked part-time as a primary job in Malta and Gozo. In the case of part-time work as a secondary job, there were more men than women on both islands.
- The labour force in Gozo increased by about 900 (about 2.5 per cent annually). The participation rate in Gozo also increased during the period, but remains lower than of Malta.
- The unemployment rate is much higher in Gozo than it is in Malta. It hovered around 7.2 per cent in the years 2010-2014, but decreased to 6.9 per cent in 2014.

Validating Briguglio's (2016) analysis, the 2011 Census found that Gozitan residents were over-represented in 'construction', 'public administration', 'agriculture, forestry and fishing', and 'education' types of economic activity, compared to the Maltese Islands (table 4.7)

Table 4.7: Employed persons aged 15-plus by district and economic activity (2011)

Economic Activity	Gozo	Maltese Islands
Agriculture, forestry and fishing	352 (3%)	2,035 (1.2%)
Mining and quarrying	56 (0.5%)	704 (0.4%)
Manufacturing	1,111 (9.4%)	22,066 (12.8%)
Electricity, gas, steam and air conditioning supply	70 (0.6%)	1,619 (0.9%)
Water supply, sewerage, waste management	198 (1.7%)	1,893 (1.1%)
Construction	1,030 (8.7%)	10,990 (6.4%)
Wholesale / retail trade	1,551 (13%)	27,590 (16%)
Transportation / storage	535 (4.3%)	10,088 (5.9%)
Accommodation and food service activities	984 (8.3%)	14,366 (8.3%)
Communication	212 (1.7%)	5,874 (3.4%)
Financial activities	306 (2.6%)	7,748 (4.5%)
Real estate activities	96 (0.8%)	1,020 (0.6%)
Professional, scientific and technical activities	269 (2.2%)	7,590 (4.4%)
Administrative and support service activities	382 (3.1%)	7,233 (4.2%)
Public administration	1,439 (12%)	14,133 (8.2%)
Education	1,629 (13.7%)	15,307 (8.9%)
Human health and social work activities	1,184 (10%)	13,334 (7.7%)
Arts, entertainment and recreation	192 (1.5%)	3,923 (2.4%)
Other service activities	261 (2.2%)	3,831 (2.3%)
Activities of household as employers	8 (0.7%)	148 (0.2%)
Extraterritorial organization and bodies	4 (0.0)	363 (0.2%)
Total	11,869	171,855

Source: National Statistics Office, (2014).

Moreover, the percentage of the population at-risk-of-poverty in Gozo was higher than that pertaining to the average for Malta in 2013 (see table 4.8).

Table 2.5 Persons at-risk-of-poverty by region/district and year

Year	% total population				
	2009	2010	2011	2012	2013
MALTA	14.9	15.5	15.6	15.1	15.7
Malta	14.5	15.4	15.8	15.1	15.7
Gozo	19.4	16.4	12.6	15.0	16.7

Source: National Statistics Office, (2015).

4.2 Social viewpoints

4.2.1 The historical setting

The idea of constructing some kind of permanent link from the island of Gozo to mainland Malta can be traced to the 1960s, when the Society for the Union of the Maltese Islands (SUMI) was especially established to advocate this unification agenda (Vella, 2011). In a strongly worded statement, SUMI's chairman underlined that "the unification of the national territory is a National Issue, and it is unhighly patriotic of any Maltese to oppose what should be an eminently non-controversial cause...future generations will cast shame and dishonour on those who will have done so" (Cauchi, as cited in Vella : 15). Cauchi believed that "unity at all levels is a most indispensable asset in such a small nation as Malta, where the collective effort of all the component parts of the country and of every citizen should be channelled to the attainment of economic viability" (Vella, 2011 : 14). SUMI's work did not yield any results and eventually the enthusiasm and motivation tapered off. The issue of physically united the island of Gozo with mainland Malta was rekindled in 1971 when a Japanese agency of five persons was asked to carry out a technical feasibility study on the possibility that a 'connection road' links the two islands. In Vella's words, their final report

...outlined the fact that in view of the actual examples if such construction in other countries, the channel does not present very serious difficulties for constructing the proposed link road. The report also remarked that as construction works in the sea are attended with much more difficulties compared with those on land, detailed surveys were required on the topography bad geology across the channels, on the tidal current, on wave bad on climatic conditions in order to determine the constriction method and to estimate the construction cost.

Vella, 2011 : 16

As happened in the previous decade, plans for unification were discarded as the government concluded that the expenses involved would have been too considerable and extensive.

In recent years, following renewed interest from Gozitan residents and stakeholders in the Gozitan business, community and political arenas, the idea promoting the unification of the two islands led to Transport Malta, through the EU JASPERS programme, to obtain the services of Mott MacDonald to carry out a preliminary analysis of road tunnel link options between Malta and Gozo. The ensuing report, carried out in 2011, highlighted that "the proposed tunnel is likely to reduce average journey times between the island of Gozo and mainland Malta by at least 40 minutes" (McDonald, 2012 : i). Key conclusions included:

- With regard to the overall length, depth, configuration and size of tunnels an undersea tunnel link between Malta and Gozo would be technically feasible and does not exceed the capability of modern technology;
- The geology of the area is potentially complex and not well documented. A detailed geological and geotechnical investigation is required to determine the optimum tunnel alignment, construction methodology and more detailed estimates of construction costs;
- The typical construction stage for a tunnel of this nature would be approximately 5 to 7 years, but this average duration is strongly dependant on the geological environment;

- A road tunnel link between Malta and Gozo could potentially be co-financed by the European Union under the Cohesion Fund;
- The securing of external financing for the construction of a fixed link between Malta and Gozo would require a full feasibility study. Consultants advise that no external funding would be considered without a comparative assessment of other options to verify what is the most economically and environmentally advantageous way to link the islands.
- The full feasibility study and environmental impact assessments would also be required to assess the following different malta-gozo transport options: bridge and/or viaduct; bored and/or immersed tube tunnel; combinations (e.g. bridge and tunnel); other fixed links (e.g. combined/tidal barrage; railway; etc.); retention of existing ferry service and/or its service expansion; other transport services (air, sea); other measures (demand management, travel behaviour change and similar).

McDonald, 2012 : *passim*

Two years later, the Gozo Business Chamber and Transport Malta commissioned another study with the objective of (a) estimating the economic and financial benefits and costs associated with the establishment of a permanent link between the island of Gozo and mainland Malta on the basis of available technical studies, and (b), establishing, with respect to each of the options currently being considered for the establishment of such link, whether (i) the option is feasible from the economic perspective, that is taking into consideration the wide impacts on the Gozo economy and that of Malta, and (ii), whether ‘the option is feasible from the financial perspective, thereby being potentially implementable through private sector investment - otherwise, the extent of public sector support that the option would require is estimated’. The submitted report concluded that from an

...economic perspective, the tunnel is the preferred option since it provides the highest economic benefit, followed by the Bridge. The relative preference between bridge and tunnel would be reversed with a €5.30 additional welfare per trip for bridge and a €205m increase in tunnel CAPEX...From a financial perspective, the tunnel ranks first as the most financially feasible option requiring no public financing...For the bridge, which ranks last from a financial perspective, to become financially feasible without need for public expenditure, toll prices would have to rise by at least 90%, with important adverse effects on use and consequent economic benefits.

Cordina, 2015 : 54

From the conclusions of the above studies, it followed that the carrying out of a Social Impact Assessment on the possibility that the island of Gozo and mainland Malta are linked through a tunnel structure is the best logical and ethical next step. In Mott’s words, a social impact assessment would be a prerequisite prior to the implementation of this policy project:

Key social issues are likely to include the effects of improved accessibility and reduced journey times on communities in both Malta and Gozo, including economic development benefits, tourism, access to education and access to healthcare. The direct benefits of generating employment during the construction phase would also be considered. The views of stakeholders and communities... are collated and analysed as part of the assessment.

McDonald, 2012 : 115

4.2.2 Public perceptions

In a review of literature on possible positive implications of the setting up of a permanent link between the island of Gozo and mainland Malta, Vella (2011) reported that SUMI outlined various advantages that would emanate as the result of the project. These included (i) ending the tribalistic division between Maltese and Gozitans, (ii) relieving the pressure on, and congestion, of the Grand Harbour by establishing Mgarr as a suitable alternative port for the Maltese Islands, and (iii), entrusting Comino into the tourist world which would compel the government to establish this island as a natural and conservation area. More recently, broadcaster Simon Lumsden was cited arguing that although a permanent link has the potential to 'spoil' Gozo, as what had happened to Bugibba in the 1980s, it still remained that the social and economic advantages outweigh heavily such as hypothetical prospect (Lumsden, as cited in Busuttil, 2003). It is noteworthy that such a standpoint struck a positive chord with many Gozitan residents (e.g. Camilleri, 2005), even though at that time, the then secretary of the Gozo Tourism Association was quoted as saying that in the opinion of the GTA, Gozo would lose its charm if an underground tunnel from Malta were built (Caruana, as cited in Busuttil, 2006). The issue of not needing a helicopter to ferry victims of serious accidents to Malta's general hospital when ambulances can make this trip in 45 minutes, easier access to the Malta International Airport, and making it possible for Gozitan students reading for their educational programmes in Malta and Gozitan workers based in Malta to return home on a daily basis were other perceived benefits of a permanent link between islands (Camilleri, 2010; Portelli, 2012).

In 2011, Vella conducted an extensive questionnaire survey, with both Gozitan and Maltese residents, on the possibility of a permanent link between the island of Gozo and mainland Malta. Vella's (2011) study found that an absolute majority of Gozitan and Maltese respondents were in favour of a permanent link between the island of Gozo and mainland Malta. Whilst out of the 148 Gozitan respondents as much as 122 (82 per cent) favoured a fixed link, out of the 160 Maltese respondents as much as 97 (61 per cent) were in favour of such a permanent link. Although percentage wise, the Maltese were less in favour of a permanent link, the majority result is extremely noteworthy. Statistically, respondents were in favour of the permanent link between the island of Gozo and mainland Malta for the following reasons (in respective order of preference):

- More work for Gozitans and Gozitan businesses;
- More accessibility between the Maltese Islands;
- Decrease in commuting/travelling time between Gozo and Malta;
- Eliminating the problem of double insularity with regards to the island of Gozo;
- Social advantages e.g. more Gozitans socialising with the Maltese and vice-versa);
- Gozo becoming an extension of Malta;

Vella, 2011 : *passim*

Vella (2011) reported that many commented that Gozitans are fed up of the 'continuous waiting and slowly going ferries' and yearn for a quicker route to Malta as this would enable them to take advantage of better job opportunities in Malta. Respondent also asserted a permanent link would facilitate travelling, improve tourism opportunities in Gozo by attracting more investment and overcoming the discomfort of long waiting, sometimes also in bad weather. From Vella's results it is evident that although the reasons whereby Gozitans were strongly in favour of a permanent link between the island of Gozo and Malta were various they all stemmed

from one source - namely, the double insularity issue that makes the lives of Gozitans - to cite one respondent - 'unbearable for the Gozitans'. In Vella's words,

The majority of the Gozitan respondents stated that a fixed link would encourage them to cross more frequently to Malta than they presently do. One respondent also claimed that her son lives with his family in Malta and thus a fixed link would encourage her to visit them more frequently. Some respondents also mentioned that Gozo would benefit from economic and long-term viability, where one respondent asserted that this project is the ultimate chance of economic and population survival in Gozo in the medium to long-term (10-50 years)...Another respondent mentioned the fact that with a permanent link in place, Gozitan parents working in Malta would be able to offer more quality time to their children because of less time devoted to travelling. Some Gozitan respondents also expressed their concerns that Gozo is slowly becoming an island for the elderly and that something should be done immediately to cope with this drastic situation. On similar lines, other respondents argued that the lack of a permanent link is the reason why Gozo is suffering from the present "*brain drain*" and that nothing apart from a fixed link will solve this particular problem and increase the standard of living for the Gozitans...Some Gozitan teenagers also claimed that they favour a fixed link because it would be faster and easier for them to travel to University or MCAST...

Vella, 2011 : 109 - italics in original

Amongst the various Maltese respondents who are in favour of a fixed link between the Maltese Islands, there are those who commented that a bridge is the best way to travel between the islands since one does not have to wait for the ferry to moor and it would be safe to use in bad weather. Others pointed out that

...a permanent link would be easier, quicker, more comfortable and that one would eventually go straight by car without any interruptions whatsoever...the only means for economic sustainability for the small island of Gozo...Gozitan workers in Malta would waste much less time travelling, they would have easier access to Mater Dei hospital and to private medical specialists' consultancy, they would enjoy cultural events held in Malta and they would also have a wider choice for study opportunities. Another respondent stressed out the point that a permanent link would treat Gozitan and Maltese students and workers on equal grounds and consequently, business in Gozo would definitely increase.

Vella, 2011 : 112

Gozitan respondents who were against a permanent link claimed that this project has the potential of having adverse effects on the environment since it will enable higher number of Maltese and tourists to visit, the ferry trip was both an enjoyable experience and a tourist attraction, and that a permanent link would spoil the peaceful and tranquil way of life that is at the heart of Gozo's identity. Maltese respondents who expressed a negative reaction towards the construction of a permanent link tended to highlight two key reasons for their stance. On one hand, many claimed that they did not wish further taxation or funds for a project for which a viable alternative already exists. In fact, one respondent argued that she is in favour of such a project only if a substantial amount of money is paid by the European Union. On the other hand, many claimed that they viewed Gozo as distinct from Malta, harbouring a more traditional and rural way of life which, if a permanent link materialises, would disappear.

As far as surveys are concerned, Vella (2011) found that whilst 82 per cent and 61 per cent of Gozitan and Maltese respondents were in favour of a permanent link between Gozo and Malta, in the same year Debono's (2011) reported that a Maltatoday survey found 65 per cent of Gozitans to be in favour - with support for a tunnel link being strongest among younger Gozitans (while only 53 per cent of over 55-year-olds would like a road connection between Malta and Gozo, more than 75 per cent of those between 18 and 34 support the idea). In 2015 the Gozo University Group claimed that 75 per cent of students taking part in a survey were in favour of a tunnel permanent link (Barry, 2015). A more recent study that sourced the perceptions on the possibility of a permanent link between the island of Gozo and mainland Malta is found in Briguglio's (2016) paper 'The economic situation in Gozo: Statistical findings and opinions' which reported data emerging from interviews with 21 Gozitan economic and social leaders to seek their views about the current economic and social situation in Gozo (no interviews were conducted with persons involved directly in politics). Although, in the author's words, this study was no a "scientific poll" (ibid., 19), it nevertheless includes interesting information related to this social impact assessment. Briguglio reported that

Fourteen respondents were in favour of (or not against) the fixed permanent link, arguing that this would encourage Gozitans to continue living in Gozo, given that even if one works in Malta it would be feasible, in terms of gained time and reduction of discomfort, to work in Malta and live in Gozo....with a fixed link, commuting for business meetings will take a shorter time and will reduce discomfort...A fixed link could also reduce the disadvantages of manufacturing firms in transporting materials to Gozo and some such firms could locate in Gozo, reducing the downsides associated with Gozo's double insularity.

Briguglio, 2016 : 20

However, Briguglio (2016) also noted the other side of the coin by highlighting how seven respondents believed that the fixed link would bring adverse experiences to the Gozitan economy as this "could reduce stay-over tourists and would also encourage more Gozitans to seek jobs in Malta". In his own words, they claimed that the "fixed link could also harm the image and charm of Gozo as a small island...three of these respondents were of the view that a fixed link would not be feasible economically and might lead to high tolls (charges) for those who use it" (ibid. : 21). Briguglio summarised the results on his queries as regard respondents' perceptions on the possibility of a permanent link as follows:

- The fixed link improves connectivity between Malta and Gozo and this will benefit Gozitan students and business people (14 respondents).
- The fixed link would be harmful to the Gozitan economy as this could reduce stay-over tourists (7 respondents).
- The fixed link would be harmful to the Gozitan economy as it would encourage more Gozitans to seek jobs in Malta, to the detriment of the Gozitan economy (8 respondents).
- The fixed link could harm the image and charm of Gozo (8 respondents).
- The fixed link would not be feasible economically and might lead to high tolls (charges) for those who use it (5 respondents).

Briguglio, 2016 : *passim*

Finally, it is noteworthy that Briguglio's (2016 : 23) respondents claimed that "the current sea link is however, not suitable for business people, workers and students, as there is too much time wasting waiting on the quays.

4.2.3 Entrepreneurial standpoints

Gozo has a thriving business community to the extent that past debates on the possibility between a permanent link between the island of Gozo and mainland Malta always elicited a response from the Gozitan entrepreneurial community. This is not surprising considering that Gozitan business community has for many years complained of various difficulties and obstacles that their Maltese peers do not face. Michael Caruana, then Gozo Chamber of Business' Vice President, was cited as feeling that

...that restaurants, hotels, and business in general would benefit with the construction of a bridge between the two islands. He argued that it is enough to look at the difference in hotel occupancy rates between Malta and Gozo to be able to see this phenomenon. Amongst other things, Dr. Caruana claims that contrary to what many of those against the bridge claimed, Gozo would not be invaded by the Maltese because the introduction of a crossing tariff would ensure that the traffic flow would not be excessive

Massa and Grech, cited in Vella, 2011 : 36

Whilst politician Franco Mercieca (2011) pointed that since Gozitan employees based in Malta wasted three hours travelling time each day just to get to work they actually wasted well over a month every year that can be used more productively, Chris Said claimed that

What would be the benefits of finally having a non-anachronistic link between the islands? It would contribute significantly to coherence with established EU policies such as the freedom of movement of people, goods and services, helping to homogenise the national economy further without having any appreciable qualitative or quantitative divergences between regions in the country. The economy in Gozo has a considerable potential that could only be maximised if a transport link sufficient for these needs is finally concretised...

Said, 2011 - online version

Since Gozo's economy is very much hinged on tourism, to the extent that the island's share of revenue from Gozo is greater when compared to that of Malta (Briguglio, 2016), the following remarks are highly pertinent,

Tourism is also thought to have a relatively large multiplier effect to the fact that its import content is relatively small compared, for example, to merchandise, given that it has a large services content and also because of its relatively large inter-industry linkages. Tourism is also economically important because it is a source of foreign exchange. Many small island states would register large balance of payments deficits in the absence of proceeds from tourism. There are also a number of indirect economic advantages associated with tourism. These include a renewed interest in local arts and crafts, improvements in leisure, communication, medical and other facilities in the host countries, and a general awareness of the natural and man-made aesthetic assets.

Briguglio, 2009 : 4

It follows that if the permanent tunnel link between the island of Gozo and mainland Malta has the potential of improving Gozo's tourism economy, then it follows Gozo has much to gain from this project.

4.2.4 Political opinions

Politicians elected from the Gozitan district are generally in favour of this policy agenda. In 2008, Anton Refalo (now Minister of Gozo) spoke favourably of a permanent link between the two islands on the basis that this would facilitate communication and transportation links, and hence, stop once and for all Gozo's dependence on the ferry service as the only means of transport (Refalo, 2008). Two years later, Franco Mercieca (now an elected parliamentarian from the Gozitan district) published a column in *The Sunday Times* putting forward the claim as the result of permanent link Gozo would not lose its character and identity when, on the other hand, it is double insularity that is the cause of Gozo's ongoing socio-economic difficulties in attracting economic investment and decline in the 'real' resident population (Mercieca, 2011). Mercieca sustained his point by claiming that Gozo's identity is currently being eroded by the continual brain-drain due to a lack of high-end jobs. Ten days later, Chris Said (then Parliamentary Secretary) calling on the government to study the possibility that an underwater tunnel link is constructed between Gozo and Malta, and arguing that a tunnel link would neither disturb the channel's seabed nor Gozo (Said, 2011). Said also stated that a tunnel link would make the meteorological interference of inter-island travel obsolete, and argued that

Government subvention has gone a long way in alleviating this problem but it is just not enough for Gozo and its people to enjoy a level playing field. The economy, society and the well being of the people of Gozo deserve more. The "under" option - the tunnel - thus presents itself almost automatically as being the best one. While satisfying all the requisites, which demand a better and more constant and reliable link between the islands, the tunnel option presents advantages in many areas. The immediately apparent advantage is the environmental one. A tunnel would not present any negative visual impact, nor would it disturb the seabed or Comino's character. The 2009 Gozo Regional Committee report states that the economy of Gozo has the potential to net generate over 2,000 jobs over the next 10 years whereby the excessive dependence on public sector employment on the island could then be reduced, a target which would also be important for the national economy as a whole. This transport link is a "must" if such a growth is to be envisaged, expected and sustained.

Said, 2011 - Online version

More recently, in a column titled *Preserving Gozo's characteristics*, Franco Mercieca (2016) once again argued, enthusiastically, for a tunnel link between the two islands. In his words, the

...very limited choice for primary and secondary education is also a characteristic of Gozitan life, especially the need to travel to Malta for extracurricular activities and tertiary education. The limited choice of careers in the private sector coupled with the high dependency on government employment is also a characteristic of Gozitan life. The necessity to travel to Malta for most health needs is felt by all. To add insult to injury, apart from a restrictive timetable to cross to Malta for these needs, bad weather also affects Gozitans' life by disrupting connectivity with Malta. This unpredictability in travelling to work or for other services - be it health, education, travelling abroad or whatever - is also a factor for Gozitan residents. After all, Gozo's characteristics are created by we Gozitans. This is Gozo, and life in Gozo for you! Yet Gozo is fast perishing. The native population is dwindling. The number of primary

schoolchildren has dropped by over 40 per cent since 2000 when the total number was 2,314. By 2014 that figure had dropped to 1,448. This contrasts with a drop of only 23 per cent in mainland Malta... a number of Gozitans registered as living in Gozo are actually residing in Malta. These include most University or MCAST students. If ferry prices of those residing in Malta and Gozo were uniform, we would have the true picture of Gozo's population. A classic example is my own family, where two out of six are already mostly residing in Malta but still registered in Gozo. No wonder it's so quiet in Gozo in midweek. Those who remain are either government employees or the few workers with the small- to medium-sized enterprises, apart from around 50 per cent who are not in employment for various reasons. If we do not pursue the permanent connection with Malta, the brain and skill drain will continue to erode the native population. The majority of young Gozitan couples are settling in Malta. This means they are not investing in property in Gozo. Moreover, they spend most of their time and money in Malta. Initially, they travel to visit their parents and extended family in Gozo almost every weekend. However, this will change drastically once the couple have their first child. In fact, some grandparents are leaving Gozo to live near their children in Malta. This is a reality that is leading to the further shrinkage of the Gozitan population. A permanent link is just the start of a long process to rectify this worrying trend.

Mercieca, 2016 - online version

One (former) politician who was not in favour of a permanent link between the island of Gozo and mainland Malta is Alan Deidun. In 2010, Deidun (2010 : 67) wrote that "Gozo should not become a carbon copy of Ibiza but instead should market its untamed, wild aspects. Safeguarding and promoting Gozo's uniqueness must be surely be the wisest tourism marketing strategy". Three years later, a journalist reported that

Dr Deidun said he was most concerned about the idea of building a bridge due to its visual impact and the effect on the seabed, which is very rich in biodiversity. "With a tunnel you can drill underneath the seabed so the issue becomes more about what you do with the rubble," he said. Dr Deidun's biggest worry is that a permanent link would turn Gozo into a "photocopy of Malta", traffic jams included, as clearly witnessed in Victoria. "What many Gozitans do not understand is that many Maltese want what is best for Gozo. We do not want Gozo to lose what Malta has already lost due to savage construction," he said, warning that a bridge would also have an impact on Comino because it would most likely have to pass through it. "What is the problem with spending an hour-and-a-half to get there?" Dr Deidun is also concerned by the financial feasibility of such a project and whether it makes sense to spend so much money on this instead of other priorities. "A similarly-priced project with national importance was the offshore windfarm. If we considered €200 million to be expensive in reaching our renewable targets of 2020, what about this?" he said

Peregin, 2013 - online version

In January 2016, (Malta's) Nationalist Party organised a General Convention on Gozo, with one news testimony reporting that the "debate on having a permanent link between Malta and Gozo was high on the agenda, with all speakers, ranging from University students to entrepreneur Michael Carauna, backing the idea" on the basis that such "a huge investment would reverse Gozo's brain drain and boost its economy" (Micallef, 2017).

5 ASSESSING THE SOCIAL IMPACT

5.1 Population impacts

Variable 1: Population change

One endeavour of social impact assessment studies is to monitor the movement of people into or out of a specified geopolitical area, over a period of time, as a result of the proposed project. The magnitude and rate of population change has important implications for community infrastructure requirements, and may be a major determinant of financial and social impacts in the region. As far as the size of population change, the density of population in Gozo, and the rate of influx or outflow of residents, this social impact assessment study finds that there will be a relative increase in the size and density of the Gozitan population, and therefore, some level of social impact on the Gozitan infrastructure is to be expected. On one hand, a permanent tunnel link will slow down the present ‘push’ of Gozitan families to relocate to Malta and the ‘pull’ of Gozitan breadwinners to purchase dwellings for weekday accommodation.

Jekk trid timraħ (timxi 'il quddiem, trid tkun Malta. Kemm se ddum nieżel u tiela' Għawdex bil-vapur. Hija jahdem ma' [kumpanija privata f'Malta], jibda xogħol fit-tmienja u ma jafx meta se jispiċċa. Tistenna l-vapur ikun jonqsok! Xtara post Malta, kien jorqod hemmhekk. Issa żżewweġ [mara Għawdxija] u qed joqgħodu Malta...impossibli jkollok xogħol tajjeb Malta u tuża' l-vapur, teħodha minn saħħtek, kieku għandna triq, kieku soqt u wasalt malajr. La riħ, la xita, la kju għall-vapur, xejn ma jtelfek. (Gozitan resident)

Hawn kulhadd jixtri l-flattijiet [sic] f'Malta, ara x'sagriffiċċju, u ara xi flus fil-hela. Jien xtrajt *flat* għat-tifla, u issa la għandha l-għarus, ikolli nixtri iehor għat-tifel la jidħol l-università. Jixtieq jidħol medicina jew għal spizjar, impossibli jmur u jiġi kuljum bil-vapur...il-familja tinfired hekk, bil-kemm tarahom lit-tfal, u ara kemm flus minn tagħna ma jmorrux għand l-Għawdxin, kieku għandna *tunnel*, kieku ara kemm jibqqa' iżjed flus f'Għawdex. (Gozitan resident)

On the other hand, a permanent tunnel link will enable Maltese persons who own dwellings in Gozo to stay longer than the customary “hurried” weekend, especially in the summer months when school children have their seasonal holidays, as well as influencing the possibility that Maltese inhabitants take up residence in Gozo since a permanent tunnel link will mean that Gozo is a mere 15-minute drive further up than Mellieħa. Interviews demonstrated that a permanent tunnel link will lead Maltese residents to believe that they have reasonable control over the Malta-Gozo-Malta journey, which will give them confidence that both a longer holiday sojourn and permanent residence in Gozo are feasible.

Jien għandi appartement Għawdex, sabiħ hafna hawnhekk, in-nies minn tagħna hafna. Imma ma tantx nista' ngawdih il-*flat*, daqqa l-vjaġġ minn Malta jeħodlok siegħa u nofs u daqqa tliet sigħat, ma tistax tippjana...kieku hawn xi triq jew *tunnel* ikun hafna iżjed possibli li niġi ġimgħa u anki xahar. Kemm-il darba nkun tiela' Għawdex u ndum ix-xogħol u naqta' qalbi għax ma tafx x'se ssib iċ-Ċirkewwa, jekk hemmx kju jew le. (Maltese person with an ID card registered in Gozo)

Qegħdin f'hotel illum. Ġejna għal-long weekend tal-festa. Fis-sajf nikru imma mhux iżjed minn gimagħtejn għax, kemm se tiegħu *leave* mix-xogħol? It-tfal vera bla skola imma l-iskariġġ ikissrek. Minn Marsalforn għall-Belt Valletta, jekk tkun iffurtnat, tehdlok sagħtejn. Jekk ikun hawn *tunnel* b'*toll* raġonevoli, anki xagħrejn sħaħ nagħmlu għax isbaħ minn hawnhekk mhux se ssib. (Maltese resident)

Aħna nithajru niġu noqgħodu Għawdex...naħdem il-Qawra, hu [żewġi] jaħdem il-Mellieħa, minn hawnhekk [Għawdex] sal-Mellieħa u sal-Qawra ma hawnx bogħod, imma bil-vapur, speċjalment fix-xitwa ma għandhekk ċans! Dejjem qalbek ittaqtaq jekk hemmx kju, jekk hux se jaħdem il-vapur, kemm se jehodlok hin. Il-vapur inħallieh jien, imma *tunnel* għandha jsir. (Maltese person with an ID card registered in Gozo)

It is noteworthy that the increased presence of Gozitans and Maltese residents in Gozo does not necessarily lead to the oft-cited claim that the island will become excessively overpopulated and more densely inhabited. Whilst the permanent tunnel link will only be accessed against a toll fee, thus discouraging possible drifting and wandering trippers, the Maltese workforce is largely concentrated in the Inner and Outer Harbour regions, a locality that many deem to be still markedly distant from Gozo.

Bil-mina wieħed għandu jkun jista' jiġi iżjed ta' spiss. Imma jekk qed naħsbu li l-Maltin ġejjin bi għarhom joqgħodu Għawdex jekk ikun hemm *tunnel* mina sejrjn żbaljati. Daqskemm huma sbieħ iż-Żurrieq u l-Baħrija, bi triqat tajbin, xorta ħafna Maltin ma jmorrux joqgħodu hemmhekk. Min għax 'il bogħod minn familta, min għax jixtieq joqgħod viċin fejn trabba. Għalkemm Malta żgħira għal ħafna nies, ħafna villaġġi huma wisq 'il bogħod. (Maltese resident)

Interviewer: Kieku tinbena mina tithajjar tiġi toqgħod Għawdex?

Interviewee: Noqgħod hawnhekk żgur li le, għax 'il bogħod minn fejn naħdmu jien u r-raġel, u minn ommi u missieri. Jien 'il fuq minn H'Attard kollu 'l bogħod. Niġi iżjed ta' spiss iva, naħseb, imma ma nagħmilx iżjed minn tlett ijiem. *Tunnel*, *bridge*, jew ma nafx x'jista' jivvinta l-Gvern, Għawdex 'il bogħod minn xogħlok u familtek! (Maltese resident)

Nevertheless, it is still followed that as the result of the relative increase in the size and density of the Gozitan population, this social impact assessment study anticipates that in the aftermath of the completion of a tunnel between the two islands, the population change will result in an increase for the request for medical infrastructure, social services, commercial operators, and policing protection.

Variable 2: Influx or outflow of temporary workers

Another aim of social impact assessment studies is to research the temporary movement into or out of workers in a specific geographical area, over a specific period of time, as a result of the planned project. This is because some of the social impacts of a project can be traced to the number and composition of the construction and associated workers who are introduced in the area. Some of the impacts of the workers are temporary (such as housing and health needs), whilst others will be more permanent (such as unused infrastructure capacity). The building of the permanent tunnel link will not result in an inundation of workers to work on the project to

the extent that there will be an impact on the temporary worker movement into or out of Gozo. Moreover, workers occupied on the Malta side of the tunnel will be accommodated and served on mainland Malta, which has the capability to absorb their impact with very limited bearing. If the project demands specialist workers from outside Malta, some worker accommodation may be required at a suitable location in a way that will not create any problems for residents living the Gozitan and Northern region in Malta.

Variable 3: Presence of seasonal (leisure) residents

Studies of social impact assessments also research whether there will be either an increase or decrease in the seasonal (leisure) population of the impact area as the result of the project development. This may impact the community's infrastructure, such as employment patterns, business practices, and interference of basic services. This social impact assessment anticipated that the intended project of the permanent tunnel link will lead to an increase in the seasonal (leisure) population, a state of affairs that was welcomed by many interviewees who claimed that this project may result in a range of positive socio-cultural, economic, and environmental impacts. Several interviewees highlighted how interactions with seasonal (leisure) residents can benefit the local population by bringing higher exposure to different ideas that diminishes the double insularity of Gozitan culture as the local population can learn about different tastes and cultures.

Għawdex magħluq wisq, dejjem l-istess nies, u dawk li jaħdmu fil-komunità ma jistgħux ilaħħqu ma kollox...għandna bżonn żgħażaġh li jaħdmu hawnhekk u joħorġu b'ideat godda. Hawnhekk mimli anzjani li mhumiex miftuħin għal ideat godda. Jekk humiex festi jew drammi, ma hawnx biżżejjed nies. Jien nġhid li iżjed ma jkun hawn nies, iżjed jiffjorixxi Għawdex. (Gozitan resident)

Jien nixtieq nara iżjed Maltin jaħdmu Għawdex. Jekk inkunu magħqudin ma Malta jkun hawn iżjed kummerċ u attivitajiet għal aktar milli nifilhu aħna l-Għawdxin...iżjed nies minn Malta u anki minn barra minn Malta jaf jgħin biex niżvilluppaw ideat godda...diġà hawn xi barrannin jaħdmu fil-*hotels* u *restaurants* u fl-IT, kollna kemm aħna morna tajjeb bihom. (Gozitan resident)

The above interview excerpts showcase the extent that an increase in seasonal residents has the potential to improve Gozitans' level of wellbeing through novel learning experiences, positive changes in values and customs, promoting cultural exchange, greater tolerance of social differences, and better understanding of different communities. As regards the potential economic impacts, an increase in seasonal residents was perceived as potentially contributing to income and standard of living by creating new business opportunities improving local economy, increasing employment opportunities, improves investment spending, augmenting tax revenues, advancing transport infrastructure, better shopping alternatives, and higher levels of direct, and indirect spending in the Gozitan economy.

Illum triq thares 'il barra mhux 'il ġewwa. Jien kont favur l-Unjoni Ewropea għax għandi fiduċja fina, u għandi fiduċja kbira wkoll fl-Għawdxin. Il-Maltin se jrin tajjeb hux? Anki taht dan il-Gvern! Malta hemm bejgħ tremend! U hawnhekk ukoll ikun hawn lira tajba jekk inkunu magħqudin ma' Malta (Gozitan resident)

Jekk ikun hawn mina, lira minn Malta tasal iżjed malajr hawnhekk. Ikun hawn ħafna iżjed bejgħ u iżjed xogħol. Ara kemm imorru tajjeb fis-sajf ir-*restaurants* u l-kiri tal-*flats* u l-*farmhouses*. Bil-mina żgur li intawwl) dan l-istaġun għall-ħarifa u r-rebbiegħa! (Gozitan resident)

Jien naħseb li biex Għawdex jimpruvja [sic] irridu naraw kif se nġibu iżjed nies 'l hawn u mhux bil-kontra. Iżjed ma jkun hawn ċaqliq, iżjed ikun hawn kummerċ u iżjed tistgħana l-kaxxa ta' Malta. Jien naħseb li b'izjed xogħol f'Għawdex igawdi l-Gvern u kulhadd miegħu (Gozitan resident)

Other interviewees highlighted that the sole dependence of a ferry service means that job creation for tourists perspectives is seasonal in nature, which leads to a significant number of low-paying jobs, often at minimum wage or less, that cause under-employment or unemployment during off-seasons, and that a permanent tunnel between the two islands have the potential to make the tourist economy a more seasonally stable enterprise. It is also noteworthy that interviewees also underlined how an increase in seasonal residents may not necessarily lead to a negative impact on the environment since there are many seasonal residents who seek emotional and spiritual connections with nature will pressure the government to preserve and protect selected, natural environments, and lessen further ecological decline.

Vera, b'izjed nies se jkun hawn iżjed moviment li jaf ibiddel xi affarijiet. Imma jaf ukoll li bis-saħħa tat-turisti jkollna iżjed flus biex nieħdu ħsieb il-kampanja u l-Ġgantija pereżempju, u anki d-Dwejra. Jien nemmen li bis-saħħa ta' aktar turisti nkunu f'pożizzjoni aħjar li nieħdu ħsieb ħwejjigna. Mhux hekk gara f'Malta! Għadni naqra kif il-Prim Ministru ħa lil xi Ministru għall-pastizzi r-Rabat. Idea brillanti, għax b'hekk nifhmu li l-ħanut tat-te huwa importanti għall-kultura tagħna u li għandna nieħdu ħsiebha (qed neħodha li qed tirreferi għal 'kultura' u mhux għal 'ħanut tat-te')...ġieli turist irid ikun biex jurik il-ġojjel li għandek (Gozitan resident)

Aħna ż-żgħar [sidien tal-ħwienet iż-żgħar] ma nistgħux naħdmu biss fil-*weekends* u fil-festi. Is-sajf tajjeb imma issa hawn ħafna kompetizzjoni mill-Maltin u l-Isqallin. Biex Għawdexi jkollu negozju tajjeb irid ikollu bejgħ normali s-sena kollha u mhux daqqa fis-sakra u daqqa mejjet għal qatra... triq bejn Malta u Għawdex hija tajba għax tagħmel is-suq Għawdexi stabbli, tista' tippjana (Gozitan resident - shopkeeper)

Some interviewees were, however, apprehensive that the increase in seasonal (leisure) residents, especially tourists, may function to damage the Gozitan environment due to increased levels of generated waste and pollution, the establishment of private beaches, as well as the excessive visits to archaeological, cultural, and religious. Others were concerned that this may also lead to Gozo's losing its particular socio-cultural identity, the Ministry for Gozo may have to generate more funds through increased taxes to maintain heavier-used transportation systems, more tourists increase prices, increasing housing and rental costs, and the closure of shops catering to the needs of the local population to make way for commercial entities that target the requirement of seasonal residents.

Ma tridx tgħagġel, trid tara jekk iżjed Maltin hux se jfisser li toġhla l-ħajja... jien li nibża' hu li nibdew inwaqqgħu djar antiki għal flattijiet [sic]...it-toroq ma jifilhux għal ħafna karozzi, kemm se jgħaddu karozzi kuljum minn hawnhekk, fejn se jipparqjaw...?...jien li ma rridx huwa li ċerti ħwienet jagħlqu...fejn *supermarkets* kbar ikissru liż-żgħir, Għawdex jitlef jekk kull ħanut tal-merċa jagħlaq...Jien m'għandi xejn kontra l-Maltin imma lanqas m'hu sew li dawn jiżdiedu b'tali mod li jibdew jidderieġu huma, u aħna ma nkunux nistgħu nibqgħu ngħixu kif konna (various Gozitan residents)

Nevertheless, these same respondents also highlighted how seasonal residents is crucial to Gozitan economy, and acknowledged that one possible way forward is a national Gozitan policy through which the above risks can be successfully and efficiently mitigated (see section 5.6 on mitigation issues).

Variable 4: Relocation of individuals and families

The number of people who are relocated, voluntary or involuntarily, as a result of intended major projects is also a significant concern of social impact assessment. The establishment of a permanent tunnel link between the island of Gozo and mainland Malta is not anticipated to result in any involuntary relocation of families residing in either the two islands. However, buoyed by the possibility of a smoother and less time-consuming Gozo-Malta-Gozo trajectory, a number of Gozitan families may choose to relocate, voluntary, from Malta and back to Gozo, as they will be attracted by participating in a stronger and more extensive family-of-origin social networks.

Naf b'ħafna Għawdxin li joqgħodu Malta u li kieku hawn *link* aħjar bejn iż-żewġt igżejjer ikunu interressati ħafna li jiġu joqgħodu mill-ġdid hawnhekk. Il-vapur jahlliek ħafna ħin u ma jkunx *worth it* toqgħod Għawdex. (Gozitan resident)

Ħafna studenti joqgħodu go appartamenti f'Malta...wara ftit jispiċċaw joqgħodu hemmhekk anki fil-*weekends* u fis-sajf, għax jaqtgħu qalbhom mit-traġitt. Kieku hawn il-mina, kieku jkunu hawnhekk għal iżjed żmien. (Gozitan resident)

Malli professjonist Għawdxi jsib xogħol Malta, għax hawn ma tantx hawn fejn taqla' l-flus, jibda jinduna kemm jahli ħin tiela' u nieżel, jixtri post Malta u ma taraxx iżjed. Triq bejn Malta u Għawdex iżzommu hawnhekk. (Gozitan resident)

The above data implies that the construction of a permanent tunnel bridge between the two islands will increase and improve the levels of bonding social capital as the relationships of Gozitan residents with friends and family will be improved and strengthened.

Variable 5: Dissimilarity in age, gender, racial and ethnic composition

Another key aspect of social impact assessment studies is the determination of the possible increase into the impact area of a sizeable group of persons dissimilar to the resident population in one or more characteristics of age, gender, race or ethnicity. The establishment of a permanent tunnel link between the island of Gozo and mainland Malta is not expected to lead Gozo to experience an influx of residents of a particular age, gender, and ethnic background.

On the other hand, since the Gozitan population has a higher level of ageing population when compared to mainland Malta, the fact that the tunnel link is expected to attract higher numbers of younger and adult cohorts of Gozitan population to take up residence in Gozo, the completion of the intended project augers well for the future of the Gozitan community.

5.2 Community arrangements

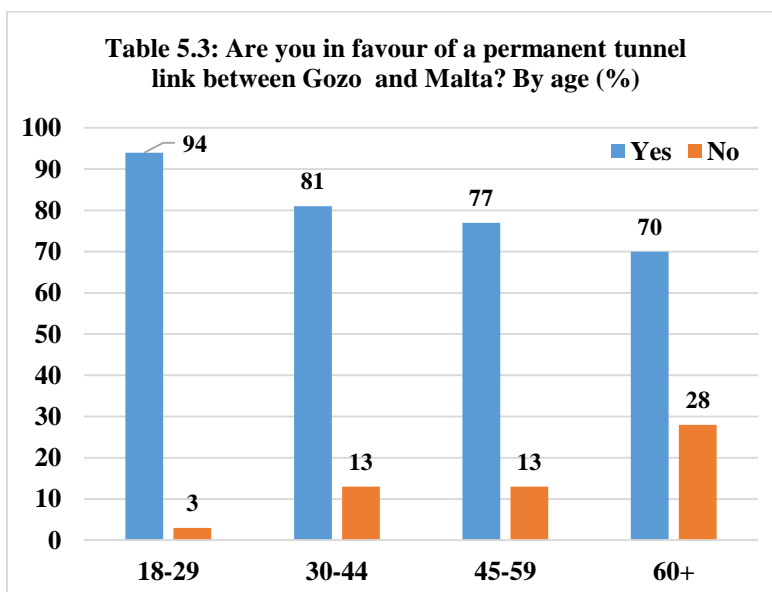
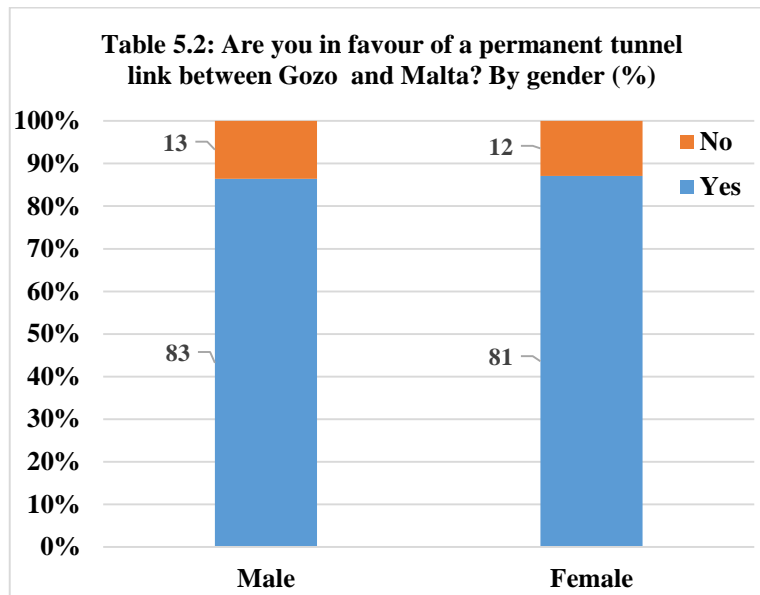
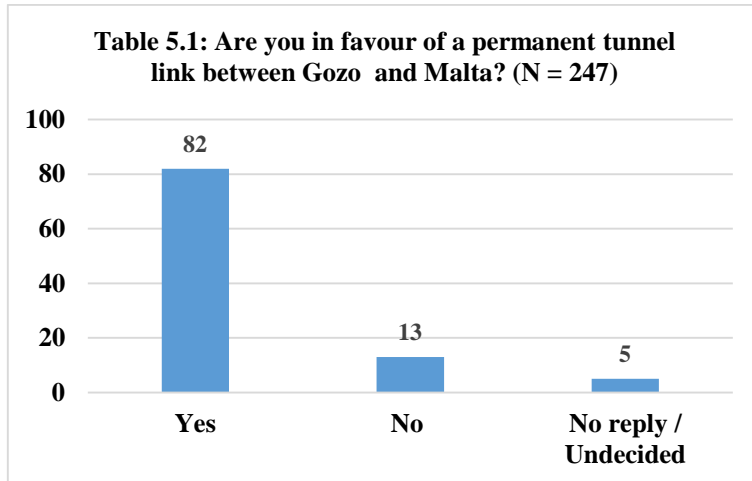
Variable 6: Formation of *public* attitudes toward the project

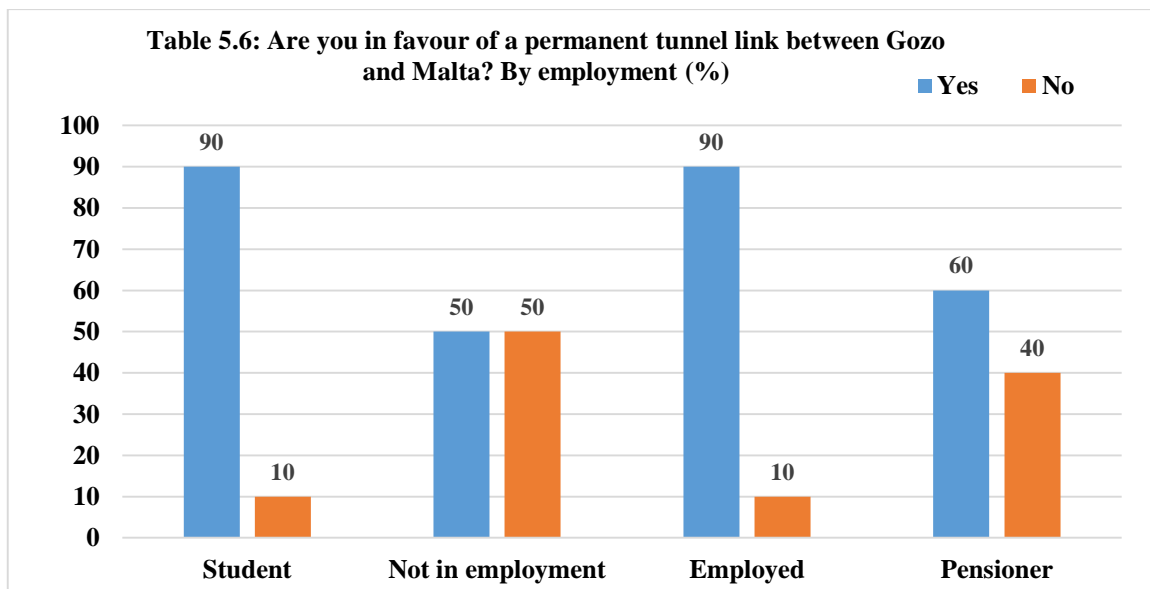
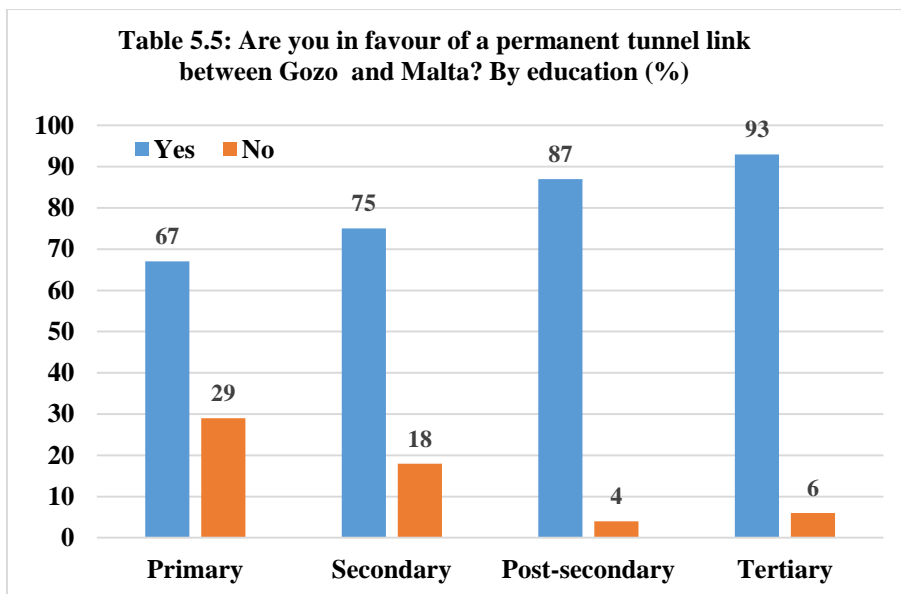
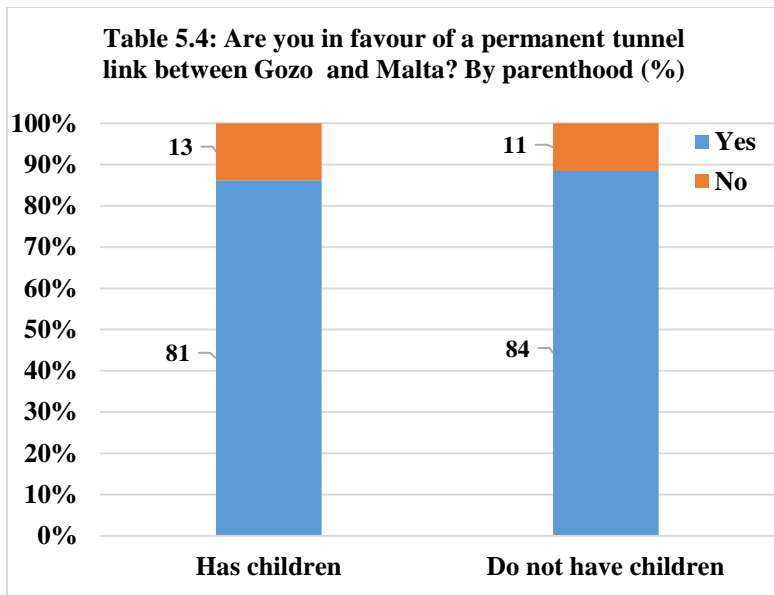
Survey results

This social impact assessment study researched the community's views, in terms of their positive or negative feelings, towards the project under focus. Gozitan residents were generally in favour of a permanent tunnel link between the island of Gozo and mainland Malta. During the scoping part of the research phase, a questionnaire was completed by 247 respondents:

Gender:	Male (152, 61 per cent) Female (94, 39 per cent)
Age:	18-29 (65, 26 per cent) 30-44 (93, 38 per cent) 45-59 (52, 21 per cent) 60+ (36, 15 per cent)
Marital status:	Single / Never married (99, 40 per cent) Married / Civil Union (128, 52 per cent) Separated / Divorced (9, 4 per cent) Widowed (8, 4 per cent)
Parenthood status:	Positive, has children (109, 44 per cent) Negative, no children (133, 56 per cent)
Educational attainment:	No schooling (0, 0 per cent) Primary education (21, 9 per cent) Secondary education (100, 41 per cent) Post-secondary (55, 22 per cent) Tertiary education (70, 28 per cent)
Employment:	Student (70, 28 per cent) Not employed (21, 8 per cent) Employed (123, 50 per cent) Pensioner (33, 14 per cent)

When asked whether respondents are in favour of the permanent tunnel link, 82 per cent (202 respondents) replied positively, 13 per cent (31 respondents) replied negatively, 2 percent (6 respondents) were 'undecided', and 3 per cent (8 respondents) did not answer. Tables 5.1 to 5.6 presents the findings as the regards the percentages of respondents who are in favour / unfavourable of a permanent tunnel link between the island of Gozo and mainland Malta (table 5.1) by gender (table 5.2), age (table 5.3), parenthood (table 5.4), education attainment (table 5.5), and employment status (table 5.6).





Analysing the responses by gender, one finds that the majority of both males (83 per cent) and females (81 per cent) were in favour of the construction of the tunnel. From table 5.3, one notices a ‘negative age-related gradient’ as regards favourable and negative, with younger respondents being more favourable to the project than older peers. Whilst analysing the data by ‘parenthood’ did not elicit any discernible trends, a ‘positive education-related gradient’ was present as respondents with higher levels of educational attainment were clearly more in favour of the construction of tunnel link when compared to their peers. As regards the analysis of results by employment, whilst one finds that both ‘students’ and ‘employed’ were overwhelmingly in favour of the project (90 per cent), a relatively high percentage of ‘pensioners’ (40 per cent) expressed themselves not in favour of the permanent tunnel link between Gozo and Malta. The final two questions in the questionnaire asked respondents to highlight which two advantages and disadvantages which they perceived a permanent tunnel link between Gozo and Malta mostly bring about. Results, in their respective order, included:

Advantages

- increasing the availability of *quality* jobs in Gozo (33.0 per cent)
- attracting more private investment to Gozo (20.6 per cent)
- enabling families who work in Malta to reside in Gozo (13.6 per cent)
- decreasing commuting/travelling times between islands (13.6 per cent)
- none (4.4 per cent)
- smoother accessibility between islands’ two hospitals (4.0 per cent)
- enabling Gozitans who work in Malta to provide more quality time to children (3.0 per cent)
- quicker accessibility to Malta International Airport (2.8 per cent)
- easier for Maltese to make use of Gozo’s tourist services (2.2 per cent)
- enabling more Gozitan residents to take up studies in Malta (1.1 per cent)
- encourage more frequent visits to relatives living in Malta (1.7 per cent)

Disadvantages

- none (46.6 per cent)
- leading to further construction of buildings in Gozo (16.2 per cent)
- increasing the number of cars in Gozo (14.0 per cent)
- adverse effects on the Gozitan environment (4.3 per cent)
- increasing taxation (4.3 per cent)
- higher tolls than the present ferry prices (2.8 per cent)
- negative effects on the sea-bed environment (2.8 per cent)
- removing the ferry crossing which is an attraction in itself (2.5 per cent)
- bringing in more tourists than Gozo can deal with (2.5 per cent)
- depriving Gozo of its unique identity (2.2 per cent)
- spoiling the charm and tranquillity of Gozo (1.8 per cent)

Results show that the majority of respondents perceived the permanent tunnel link as potentially increasing the availability of *quality* jobs in Gozo (33.0 per cent), attracting more private investment to Gozo (20.6 per cent), enabling families who work in Malta to reside in Gozo (13.6 per cent), and decreasing commuting/travelling times between islands (13.6 per cent). Indeed, it is noteworthy that the majority of respondents (46.6 per cent) declared that they perceive the project to have ‘no’ major risks, although as much as 16.2 and 14.0 per cent highlighted the possibility of increasing the construction of buildings in Gozo increasing and the number of cars in Gozo respectively.

Interview results

The qualitative research validated the above results as interviews found that foremost on Gozitans' minds was that this project will decrease commuting/travelling times between islands, attracting more private investment to Gozo, increasing the availability of *quality* jobs in Gozo, and enabling more Gozitan residents to take up studies in Malta. In their own words,

Il-mina għandha tħaffef it-*trip* bejn Malta u Għawdex. Aħna naħlu ħafna ħin niżlin u telgħin Malta. Kieku dan kien kapriċċ nifhem li ma għandu jsir xejn, imma aħna ninżlu biex naħdmu, nistudjaw, u nagħmlu l-kummerċ. Ħafna minna jinżlu wkoll għand speċjalisti tas-saħħa... (Gozitan resident)

Jien naħseb li l-mina mhux talli se tħalli iżjed xogħol hawnhekk għalina l-Għawdxin iżda se tkun mutur biex ikun hemm *jobs* ta' kwalità li jkollok paga sura u tkun tista' tilhaq 'il fuq. Għax għalkemm ġieli jkun hawn *jobs* godda hawnhekk, ħafna minnhom, kważi kollha, huma *jobs* fejn taqlagħha u tiekolha (Maltese resident with an ID registered in Gozo)

Il-mina se twassal biex ħafna Għawdxin ikomplu jistudjaw għax ħafna jaqtgħu qalbhom minħabba l-vapur...in-nisa se jmorru tajjeb ħafna għax ħafna ma jistgħux jaħlu tliet sigħat kuljum mal-vapur meta għandhom tfal żgħar jew anki fis-sekondarja għax dawn ikunu d-dar wara nofsinhar, u biex tkun id-dar dar fil-ħin trid titlaq minn fuq il-post tax-xogħol f'Malta għal xi nofsinhar. Kif jista' jkun! L-anqas haqq toħroġ mid-dar għax wara siegħa jkollok tibda taħseb biex tiġi lura. (Gozitan resident)

Aħna nħossuna li ma nistgħux ingawdu mis-suċċess ta' Malta. Irid ikollok transport tajjeb għall-Belt Valletta u għal tas-Sliema. Anki l-Mellieħin ġieli jaqtgħu qalbhom jaħdmu l-Belt Valletta. Aħseb u ara tkun toqgħod Għawdex! Aħna nikkontribwixxu għall-ekonomija Maltija u għandu jkollna ċans daqs ħaddieħor. (Gozitan resident)

Family issues also ranked high on positive reactions of interviewees, as a permanent tunnel link between the island of Gozo and mainland Malta was thought of facilitating more frequent visits to relatives living in Malta, more quality time to children by Gozitan parents who work in Malta, and the relocation of families who work and live in Malta to reside again in Gozo.

Aħna għandna qraba joqgħodu Malta li ma nistgħux ingawduhom. Huma jiġu Għawdex għal *holiday* u jarawna, imma aħna kemm-il darba se ninżlu Malta, ninżlu għall-isptar u biex naħdmu, il-ħin prezzjuż, daqs kemm taħli ħin tistenna l-vapur. Jien inħossni nonqoshom imma għandi idejja marbutin. (Gozitan resident)

Jien naqbel mal-mina għax naħdem Malta u t-tfal bilkemm narahom. Il-mara tieħu ħsiebhom għal kollox. Jien nitlaq għall-ħamsa għax nibda xogħol fis-sebġha, u nasal lura għas-sitta mbagħad il-Ġimgħa, ommi ma! Ġieli nasal anki fit-tmienja u nofs fis-sajf. Kif jgħidu, lit-tfal mhux qed narahom jikbru. (Gozitan resident)

Malta hafna ahjar ghal dak li ghandu x'jaqsam mat-tfal. Hemm hafna opportunitajiet ghad-drama pereżempju u hemm bhas-St. James Cavalier li tgħidx kemm jorganizzaw affarijiet ghat-tfal, imma mhux se nahli dak il-hin kollu mal-vapur is-Sibt. Kemm-il siegħa fiha l-gurnata! (Gozitan resident)

Moreover, as a permanent tunnel link between the island of Gozo and mainland Malta was perceived as facilitating their social and economic wellbeing by contributing to a smoother accessibility between islands' two hospitals, quicker accessibility to Malta International Airport, and making it easier for Maltese to make use of Gozo's tourist services.

Il-mina twassal aktar Maltin lejn Għawdex malajr u għalhekk ikun jista' anki jkollhom mawra qasira, fejn jieħdu kafe Marsalforn, jieħdu t-tfal iċ-Ċittadella u d-Dwejra, jew anki għawma qasira fis-sajf. Mhux *worth it* titla' Għawdex bil-familja jekk mhux se tagħmel mill-anqas jumejn. (Gozitan resident)

Jien nuża' l-isptar ta' Malta hafna drabi minhabba kundizzjoni, nahseb li jekk ma jistax ikolli s-servizz Għawdex, li nifhem, billi ma hawnx hafna bhali hawnhekk, għall-inqas għandu jkolli tragitt qasir u mingħajr inkonvenjenza. Ifhem, mhux għalija, għax jien issa xiha, għall-inqas għal dawk ta warajja. (Gozitan resident)

Ahna l-Għawdxin insiefru hafna u biex naqbd u l-ajruplan irridu nahsbu minn wisq hin qabel...it-turisti li jiggu joqgħodu Għawdex għali jkollhom jagħmlu lejl Malta għax jew ikunu għajjenin jew għax fix-xitwa jiddeju jaqsmu l-fliegu bil-lejl... imma l-izjed għalina, għandu jkollna access faċli għall-ajruport. (Gozitan resident)

On the other hand, a minority of interviewees had an adverse reaction towards the possibility that a permanent tunnel link between the island of Gozo and mainland Malta is to be constructed. Most opposing reaction were based on environmental concerns, on the basis that they perceived this project to have the potential to lead to adverse effects on the Gozitan environment, bringing in more tourists than Gozo can deal with, and increasing the number of cars in Gozo. Others also highlighted how a permanent tunnel link may spoil the charm and tranquillity of Gozo and depriving Gozo of its unique identity.

Jien imhasseb hafna dwar it-terrapin u l-ħmieg li se jinqalgħu biex tinbena l-mina, x'se jsir minnu dan il-blatt, se nħammgu kullimkien?...Ma tantx jien ferħan li se mmissu taht il-bahar, jien nahseb li x-xogħolijiet li se jsiru se jaffettwaw il-ħut tal-madwar, speċjalment dawk l-iskossi kollha...Hadd m'hu qed isaqsu li forsi mhux in-numru ta' Maltin u turisti li se jiggu hawnhekk huwa l-izjed haġa importanti, imma li ntejbu l-kwalità tagħhom..kemm jiflaħ Għawdex għal izjed nies? Speċjalment f'Awwissu...Wieħed irid jahseb dwar l-impatt ta' izjed nies fuq Għawdex. *Parking, pollution*, pereżempju. U xi ngħidu għall-elettriku? Għandna vultaġġ biżżejjed għal izjed djar, *hotels* u ħwienet? Ma nafx kif Għawdex se jibqa' kwiet u trankwill b'din il-mina, nispera li jkun hemm ħlas mill-Maltin u ħlas oghla mill-barranin...vera hawn xhur fejn ikun mejjet. Imma hawn xhur li huma *full capacity*. Nagħmluha l-mina imma l-ewwel naraw li l-infrastruttura tkun tiflaħ għal izjed *parking* u karozzi. (various Gozitan residents)

This social impact assessment takes note of the above concerns and will ensure that effective mitigation plans are in place (see section 5.6).

Variable 7: Interest group activity

Social impact assessments study the formation, or renewed activity, of formal and informal interest organisations stating positions for or against the project or policy change. This is because interest groups and organisations are identifiable forces active in the community that represent subcategories of the population which stand to gain or lose by the proposed project or change in policy. This social impact assessment conducted non-directive interviews with three key stakeholder groupings. *Gozitan students studying in Malta* asserted that they were generally in favour of the construction of a permanent tunnel link between the island of Gozo and mainland Malta because of the excessive time they spent commuting to the University of Malta and Malta College of Arts, Science and Technology. Indeed, when one takes in consideration that some lectures start as early as 08.00 and evening lectures finish at around 20.30, the times at which they have to leave their homes and return back to Gozo, respectively, is extremely burdensome on both their capacity to find time to study and their social lives. They also mentioned that the long commuting time that it takes to travel from Gozo to the required locations makes it impossible for them to attend public lectures which generally take place in late evening, or to make use of libraries during the weekend. This puts them at a great disadvantage compared to their Maltese peers. The extreme commuting time was also a sore point for *Gozitan residents who work in Malta*. The latter, who also expressed themselves favourably to the construction of a tunnel between Malta and Gozo, cited that the trip from their place of work to Ċirkewwa, and subsequently, the ferry trip which includes waiting time in queues, affects negatively their work-life balance, and that, despite the available family-friendly measures, they still were unable to dedicate quality time to their children and ageing parents. Many Gozitans working in Malta stated that they were always on the brink of leaving well-paid jobs in Malta to lower paid, seasonal, job in Gozo due to the negative social and personal implications of having to spend some four and a half hours each day getting from their homes to their place of work and back. Finally, despite the fact that *Maltese persons with an ID card registered in Gozo* were less strongly favourable to the tunnel link between the island of Gozo and mainland Malta, one also found a number of positive and sympathetic responses. Many felt that they can enjoy their Gozitan property if the commuting time decreases, as they would be in a position to travel both more frequently, as well staying longer, in Gozo – which, in their own words – would not only contribute more constructively to the Gozitan economy but would also augment the social cohesion between Gozitan and Maltese persons.

The views of the *Front Favur il-Mina* (Front in favour of tunnel) and the *Grupp Universitarji Ghawdxin* (Gozo University Group) were also solicited. As expected the representative from the *Front Favur il-Mina* claimed that this recently established non-governmental organisation was solidly in favour of the tunnel link since it was practically impossible for Gozitans to commute to Malta on a daily basis if one studies either full- or part-time in Malta and holds a well-paying occupation that, as it logically follows, is time-demanding. The *Front* believes that Gozo is already losing its identity as younger residents are increasingly settling down in Malta so as to circumvent having to waking up very early in the morning or remaining stranded in Malta due to bad weather. Although a fast ferry service may be a promising short-term solution, as most viable long-term solutions is the construction of a permanent tunnel link. During the interview, the representative underlined that tunnels linking islands are not something out of the ordinary to the extent that the detailed report on the most feasible options turned to Norway as a source of data which has ample experience in producing well-managed tunnels at an affordable cost. Norway has some 40 subsea tunnels in operation or development, close to 30 years' experience and the length of tunnels vary between two kilometres and 25 kilometres while the depth vary from 20 metres to 380 metres. For the *Front*, a smoother and faster

accessibility route between Gozo and Malta, and back, is key, to the extent that in the number of years required for the permanent tunnel to be built, the Government is called upon to embark on more transport options that would improve the travelling time incurred by Gozitans to travel to and back from Malta. The representative from the *Grupp Universitarji Ghawdxin* confirmed that an in-house 2016 survey found that the majority of Gozitan students at the University of Malta are in favour of this proposed link since the relatively inefficient, and sometime lack of, ferry service is a key concern of students, especially if they do not drive and depend on public transport. This organisation's members find that losing a total three to four hours a day to cross over to Malta and back is not in any way productive to their student lives, and even detrimental to their wellbeing. However, the representative added that whilst there is no question of the *Grupp Universitarji Ghawdxin's* 'in principle' support towards the project, the organisation wishes that more detailing planning on the way that the tunnel will be constructed and whether the government is forecasting any policy changes - on issues ranging from public transport to socio and medical services - following the completion of this project.

Variable 8: Alteration in the size and structure of local government

A change in number and type of positions necessary to operate local government activities in the impact area is a key interest of social impact assessments. This is because, following the development of large and extensive projects, local governments tend to begin to operate more formally and bureaucratically as the volume and complexity of its responsibilities increase. This social impact assessment anticipates that the construction of a permanent tunnel link between the island of Gozo and mainland Malta will result in a more populated Gozo which, despite holding possible positive returns for the Gozitan economy, will also add to the required work on behalf of Local Councils. Hence, it is being advocated that the Government of Malta strengthens the financial funds and human resources of Gozitan Local Councils, especially in those localities - Rabar, Xlendi and Marsalforn for certainly - which will certainly be visited by more long- and short-term residents and visitors respectively.

Variable 9: Presence of planning and zoning activity

Studies of social impact assessment review the extent that the national government can cope with increases in the development, planning, zoning and/or land use regulation. Cognisant that the construction of the permanent tunnel link will increase the number of residents and visitors to Gozo, this study strongly recommends that whilst the Government should strengthen the Ministry for Gozo's expertise and human resources as far as present and anticipated requests for structural, social and medical services are concerned, it is also necessary that the Ministry for Gozo works more directly, thoroughly, and intimately with all Ministries. Whilst the project is best synchronised under a Gozo-led and -based leadership, the possibility that the Ministry for Gozo may not cope with all the range of demands and changes is also to be considered and mitigated for.

Variable 10: Industrial development

The number and variety of private sector industries - ranging from manufacturers to retailers to services - within the project impact area also has potential for major social impact. This is because project development could lead to industrial diversification in the local economy, both directly through its presence as an employer and consumer of equipment, supplies and services produced by its employees. The completion of the tunnel link between the island of Gozo and mainland Malta is expected to diversify the number and range of the private sector industries

in Gozo, especially in the rural areas, which should aid those communities which are possibly dependent on only one industry to branch out into and incorporate novel businesses. Economic diversity helps reduce the influence of negative impacts to the host community for, as tourism grows, additional opportunities are created for investment, development, and infrastructure spending. And if tourism has an unfortunate year, other commercial activities may compensate. Moreover, economic diversity has the potential to increase not only the number of job opportunities in Gozo but also the range and quality of occupational possibilities.

Variable 11: Enhanced economic activities

Researching social impacts requires studying the degree to which employment opportunities of the proposed area or development match the job skills of the unemployed in the impact area. This is because project justification often hinges on the expectation that the development event will contribute to the economic needs of the area. This social impact assessment found that both residents and business operators held that the establishment of a permanent tunnel link between the island of Gozo and mainland Malta has a strong potential towards bringing about a new *quality* job opportunities that would result in lowering unemployment and underemployment rates in the Gozitan region. Speaking with *The Malta Independent*, Gozo Business Chamber President Joseph Grech spoke favourably of the possibility of the permanent tunnel link between the island of Gozo and mainland Malta, and

...explained that rather than focusing on major infrastructural projects, the bulk of the proposals relate to “small measures” which would have a big impact in the long-run. In addition to this, he also said that creating schemes which offer more efficient services for people who make the crossing between Malta and Gozo very frequently have also been proposed...Asked about connectivity between the two islands, Mr Grech said, “As the Gozo Business Chamber we agree with the three forums of connectivity: that being the tunnel, the ferry and by air. **Our priority is the tunnel, because it would be of the greatest help to Gozo – however we understand that this takes time.** We were happy to see that the government wants to introduce the ‘fast ferry.’” Turning to business friendly measures, he said: “We propose measures to help people buy property. Apart from this, we have made proposals so that the Gozo channel contains more customer friendly measures – so that whoever is making use of this service will be able to make the crossing more efficiently. “The ferry is already comfortable, but we would like there to be measures so that people can make the crossing in a more timely way – in terms of buying tickets, the crossing itself, etc. “There could also be schemes, but you would need to see which company would be responsible, for those making the crossing very often, let’s say 20 or 30 times a year could have one ticket which serves them for the year – saving them time on purchasing tickets each journey. This could be of use for both Maltese and Gozitans who make the crossing very often, for work or because of property owned. We could also have the opportunity of providing special rates.” Asked about his proposals for the tourism sector, he said: “We wish for there to be quality hotels. Right now there are many boutique hotels being built, which we agree with. We wish for there to be foreign investment, enticed by quality and well-known hotel brands, attracting people and investors. “Naturally, we would need better connectivity because having lovely hotels attracting tourists would be futile without connectivity.” He explained that rather than focusing on major projects, in view of the possible tunnel and the medical school known as Barts,

“we are turning to smaller measures which would have a big impact in the long run, improving tourism and industry...”

Malta Independent Online, 2016 - bold added

Indeed, interviews with prominent businessmen and businesswomen, located through purposive sampling, were overwhelmingly in favour of the construction of the permanent tunnel link between the island of Gozo and mainland Malta for both social and economic reasons.

Il-mina se tippermetti li Għawdex ma jsirx iżjed post tax-xjuħ, qed nitilfu ħafna żgħażaġħ li jmorru jistudja l-Università u l-MCAST, għax billi l-manifattura nixfet hawn Għawdex, iż-żgħażaġħ qed jaqbd u studju fis-servizzi li mbagħad ma jkunx hawn xogħol biżżejjed għalihom hawn, jekk iżjed familji joqogħdu Għawdex, ikun hawn bżonn ta' ħafna servizzi u għalhekk ikun hawn karotta biex iż-żgħażaġħ ma jissetiljawx Malta. (Gozitan business-person)

Jien *hundred per cent* favur il-mina. Aħna nsofru ħafna mill-ħela ta' ħin tielin u nieżlin Malta. Trid tippjana fuq li tippjana, u taħseb ħafna (minn) qabel biex tagħmel xogħlok Malta, għax biex tmur żmerç fil-ħin b'xi siegħa fil-kju tistenna li titla' l-vapur ma trid xejn! Jien ninżel Malta tliet darbiet fil-gimgha żgur u anki erba' darbiet ukoll. (Gozitan business-person)

Il-*businessman* Għawdexi moħħu jaħdem mat-timetable tal-vapur. Ikkollok titlaq ħesrem minn meeting għax se tiflew il-vapur, dejjem qalbek ittaqtaq jekk mhux se tiġik tajba... hawn naħdmu fil-weekend biss, ma tistax taħdem hekk, jekk għandek restaurant ikollok ħafna telf hekk. Il-mina ssolvielna tliet problemi, id-double insularity, li Għawdex periferija, jiġifieri aħna l-bogħod minn tas-Sliema u l-Belt [Valletta] fejn hemm ħafna kummerç u turizmu, u li aħna żgħar, fis-sens li ma hawnx nies biżżejjed għan-negozji li għandna (Gozitan business-person)

L-aċċessibilità tiġi l-ewwel għalina. Li tinżel u titla' Malta f'inqas ħin huwa prijorità. Mhux talli l-mina tajba imma jrid ikollna xi haġa iżjed minn dawn it-tliet vapuri sakemm titlesta', fast ferry u shuttle buses għall-ajruport, l-università, Meter Dei u anki Marsaxlokk, għala le? Taf li ġieli nagħmlu sagħtejn insuqu miç-Ċirkewwa sal-Belt [Valletta]! (Gozitan business-person)

Jien nara (li) l-mina taf tkun (ta') investment ambjenti pożittiv. Jekk ikun hawn il-mina jkun hawn iżjed min ikun lest jixtri proprjetà u jekk jirnexxilna jkollna politika soċjali li tgħijn li jinbiegħu postijiet fiç-ċentru ta' rħula li huma battala u mitluqin, dan ikun tajjeb għal kulħadd. Il-progress mhux kollu negattiv, skont kif tmexxih. (Gozitan business-person)

Il-mina għandu jkollha impatt soċjali pożittiv, jiġifieri li tgħin lill-Għawdexin fil-ħajja tagħhom ta' kuljum. Tinsix li hawn min irid jinżel Malta għall-*chemotherapy* u ħafna studenti u ħaddiema jaħlu ħajjithom jistennew il-vapur. Anki parking l-Mgarr sar diffiċli immens. Li tinżel Malta saret kedda sew. (Gozitan business-person)

Hawn Għawdex mhux imbilli jgħidu li jgħixu 31,000 persuna, jekk hawn 20,000 persuna, massimu, u ħafna minna norqdu Malta. Ma tistax taħdem fi gżira fejn

bejn il-Ħadd filgħaxija u l-Ġimgħa filgħodu kullimkien baħħ. Weekend Maltin mhux biżżejjed, x'se tagħmel fost il-ġimgħa? Il-mina żgur li tagħti iżjed incentive biex ikun hawn iżjed Maltin joqogħdu iżjed fit-tul. (Gozitan business-person)

Ma hemmx iżjed *options* għaliġa, jew il-mina jew Għawdex se jmut. Jien, biex inkun onest, il-*business* tiegħi sejjer tajjeb, pero jekk inħares lejn familja, it-tfal [tiegħi], u l-kummerċ ingeneralif' Għawdex ma nistgħux ngħaddu mingħajr mina li tagħtina aċċessibilità wiesgħa u effiċjenti. Ma nistgħux nibqgħu weekend destination biss. (Gozitan business-person)

Għawdex sar post tal-anzjani, fejn familji qed jinqasmu bejn dawn li jibqgħu hawn u l-oħrajn li jgħixu għal hafna granet Malta. Fil-familja tagħna għandna sitt neputijiet li joqogħdu Malta fost il-ġimgħa u ġieli jgħaddu l-weekends Malta, ma ttiehomx tort, tagħmel ħbieb u titgħarras Malta, u tonqos il-ġibda lejn Għawdex. (Gozitan business-person)

Il-maltemp itellef. Aħna l-Għawdxin imdorrijin naqsmu, ikun xi jkun it-temp, iżda t-turist u anki l-Malti jaħsibha darbejn kif jara r-riħ jew (kif) jissaħħab l-ajru jekk jitlew Għawdex. Ġieli jkun hawn erba' weekends wara xulxin bix-xita, u ma jersaq hadd, kif kellna din is-sena, anki San Pawl kienet fqira għalkemm (kienet) long-weekend. (Gozitan business-person)

The fact that the construction of a permanent tunnel link between the island of Gozo and mainland Malta would also contribute to the socio-economic wellbeing of Malta was frequently mentioned. In the words of one respondent,

Hawn Għawdex hawn assets li jekk ikun hawn il-mina jkunu jistgħu jintużaw mill-Maltin ukoll. Ngħidu aħna, hu l-isptar pereżempju, kieku bil-mina jista' jintuża mill-Mellieħin u minn dawk li joqogħdu fit-Tramuntana ta' Malta....hemm l-iskejjel ukoll, hawn skejjel tal-primarja hawn Għawdex li huma kważi vojta, hawn bil-kemm hawn tfal x'ngħallmu!...kważi 75 fil-mija tal-Għawdxin qed jixtru l-ewwel proprjetà f'Malta. (Gozo business-person)

This social impact assessment acknowledged the preoccupations of the general public towards the construction of the tunnel link, and consequently, prompted these stakeholders to air their reactions towards such matters:

Jien nifhem lil dawk li jgħidu li l-mina jaf ikollha impatt negattiv fuq l-ambjent u fuq il-*footprint* tal-bini, jgħidu li taf iżżid, pero, jien ngħid li għandu jkun hemm liġi li ma tippermettix li jsir bini fl-ODZ għax inkella ma ssirx il-mina. U peress li se tkun bil-flus, se jfisser li l-Maltin mhux se jaqdbu jiġu s'hawn kif ġie ġie. (Gozitan business-person)

Rigward il-fatt li se jiżdied it-traffiku bil-mina, jien ma naqbilx miegħu, għax hawn it-traffiku jkun hażin biss meta l-karozzi jiġu kollha f'daqqa mill-vapur għar-Rabat. Bil-mina t-traffiku se jkun iżjed bil-mod. U se jkun hemm in-noll ukoll, mhux qed nistenna li se jkun hawn persuni li se jużaw il-mina għal xejn b'xejn għax trid thallas. (Gozitan business-person)

Lil min qed jibza' li Ghawdex se jsir bhal Malta, ngħidlu ma jinkwetax għax aħna ma rridux il-mass market ta' Malta, dan ma jinteressaniex, aħna rridu il-kwalità, kemm fit-turiżmu mal-Maltin kif ukoll mal-barranin, nafu li jekk ikun hawn nies iżjed milli jiflaħ Ghawdex, il-Malti jerga' jibda jmur Sqallija u nitilfu dak kollu li jagħmilna uniċi. (Gozitan business-person)

Jien naħseb li l-identità ta' Ghawdex diġà qed tintilef, għax spicċajna b'żgħażaġh Ghawdxin li jistudjaw u jorqdu Malta. Jekk il-familja hija parti mill-identità Ghawdxija, mela din diġà tnaqqret għax ħafna nisa li jaħdmu Malta mhux qed isibu *quality time* għal uliedhom u għal żewġhom, aħseb u ara biex jieħdu ħsieb ix-xjuħ tagħhom. (Gozitan business-person)

Business-persons involved in the real estate commerce highlighted how a fixed link between the two islands not only has the potential of increasing the buying and re-selling of properties in Gozo, but also in influencing that unoccupied residences in Gozo are inhabited by their owners for more than the occasional weekend. Many properties that are bought by Maltese residents remain unoccupied because the impractical ferry crossing is considered as too time-consuming. A number of business-persons and professionals were, however, sceptical and unfavourable to the construction of the tunnel link, and commented as follows:

Jien naħseb li l-mina hija *knee-jerk reaction* biex nagħtu soluzzjoni għal problema li hija iżjed kumplessa, li għandha bżonn soluzzjonijiet iżjed wiesgħa...jien naħseb li għandna nagħtu iżjed importanza lil strateġiji ta' xogħol sostenibbli għal Ghawdex...jekk ikun hemm rieda li nnaqsu t-taxxa li jhallsu min iħaddem, anki l-banek, mhux talli jkollna xogħol għal kullhadd hawn Ghawdex, iżda żgur li jkollna xogħol għal Maltin biex jaħdmu Malta...il-mina se tagħmel Ghawdex raħal f'Malta, jien ma rridx hekk, anzi Ghawdex għandu jibqa' mifrud minn Malta għax dak huwa l-vantaġġ tal-post...għalkemm hawn ħafna nies li huma xettici rigward il-mina, ffit se jitkellmu, għax min se jehodha kontra ż-żewġ partiti politiċi li huma t-tnejn favur il-proġett...ffit huma dawk li lesti jgħidu dak li jintqal fil-kċina ta' darhom fil-beraħ...jien naħseb li min jaħseb li l-mina se ssolvi kollox mhux qed jara l-istampa kollha, il-ħsieb li l-mina hija soluzzjoni li se ġġib lil Ghawdex aħjar f'kull aspekt ekonomiku u soċjali ma jfissirx li bilfors se jiġri hekk, jien naħseb li s-soluzzjoni taf tkun xi haġa fin-nofs, pereżempju linja fissa ta' transport bejn il-gżejjer, anki taħt il-baħar, imma mhux bilfors *tunnel*...jien ma nistax nifhem kif hadd mhu qed jitkellem dwar x'se jiġri mill-gebel li se jinqala' biex issir il-mina, dak mhux ħsara ambjentali wkoll bhal meta konna ngħidu għall-*air strip*. (Gozitan business-persons)

Variable 12: Change in employment equity for minority groups

The degree of which employment opportunities of the proposed project match the job skills of minorities - such as low-income, younger persons, ethnic groups, and women - is a key interest in social impact assessments. It is imperative that jobs resulting from project development need to be distributed equitably. This social impact assessment advocates that both the job opportunities resulting from the construction of the tunnel and those resulting in Gozo as the result of the completion of the tunnel link are in line with and follow established industrial relations practices and procedures. This will safeguard the rights of all workers but especially the vulnerable ones.

Variable 13: Changing occupational opportunities

Social impact assessments analyse the degree to which the proposed project or development alters the occupational profile of the impacted area, since such changes may lead to changes in family-income and lifestyle alterations. The completion of the permanent tunnel link between the island of Gozo and mainland Malta is expected to change the occupational profile of the impacted area is expected to improve the current occupational opportunities in Gozo by enabling its occupational economy to lessen its overreliance on ‘construction’, ‘public administration’, ‘agriculture, forestry and fishing’, and ‘education’ types of economic activity, and towards more post-industrial services occupation due to the increase of long-term and seasonal residents, and tourist activity.

5.3 Possible conflicts

Variable 14: Presence of an outside agency

Studies of social impact assessments question whether a government agency or private company, that has not previously been in the community and whose management and control is external to the area, will seek a permanent residence in the project area. This may be a source of dissatisfaction among local stakeholders, especially if this agency is not responsive to local needs and priorities. Its presence may also be a source of frustration as it may alter existing social and power structures within community. Herein, this social impact assessment advocates that the government ensures that any external agency that bases itself in Gozo during the tunnel construction process, or following the tunnel’s completion, respect the needs and priorities of the locality’s residents and stakeholders, and that all the necessary action is taken so that the quality of life of Gozo’s inhabitants is not effected in a negative manner.

Variable 15: Introduction of new social classes

Social impact assessments research the possibility of appearance of a group of people that either expand an existing social class or establish a new social class. This is because the appearance in the community of a group of people who, because of their education, income and/or occupation, have a different lifestyle than those of the existing residents may change the political and power relationships within the community. This social impact assessment does not anticipate any impact as far as introduction of new classes are concerned since, as the result of the completion of the permanent tunnel link between the island of Gozo and mainland Malta, will be beneficial for all members of all social class groupings. The fact that this project may reverse ‘brain drain’ trend that Gozo experiences on a continuous basis, the relocation of members of the professional classes will mean that the island will then include a wider and stronger range of specialised services. This will decrease the possibility that Gozitan residents have to visit Malta for specialised social and medical services.

Variable 16: Change in the commercial/industrial focus of the community

A possible change in the traditional commercial/industrial or private sector focus of the community is another key focus of social impact assessments. If the area is known as a retirement, farming, or other type of community, the concern is whether the introduction of the project will change this traditional character. This social impact assessment anticipates that rather than a drastic change in the nature of the existing commercial/industrial or private sector focus currently present in the Gozitan community, the completion of a permanent link between

the island of Gozo and mainland Malta will leading to more diversification of job opportunities for Gozitan residents.

Variable 17: Presence of weekend residents

Social impact assessments also focus on the possibility of an influx of temporary weekend residents or who have no permanent home in the community as the latter may exploit or use the new project, but then, contribute very little (if any) in return to the community. The establishment of a permanent link between the island of Gozo and mainland Malta is expected to lead to an increase of weekend residents which will have both positive and negative implications on Gozitan socio-economic fabric (*vide* variables 6, 7, 11, and 18).

5.4 Individual and family level impacts

Variable 18: Changes in daily living

Social impact assessments research the possible changes in the routine living and work activities of residents in the impact area caused by alteration to the visual environment, noise and odour levels, transportation routes or the amount of vehicular traffic resulting from the project or development. A change in the community image may also influence whether outsiders will visit, live, or establish businesses in the area. Although fieldwork found that a number of Gozitan residents looked favourably on the fact that a permanent link between the island of Gozo and mainland Malta may result in an increase of the Gozitan resident and visiting population, as will may lead to a range of beneficial socio-economic effects, others highlight possible negative impacts that may result as the result of such development. These included,

- probable increase in traffic and decrease in parking availabilities;
- probable increase in leisure venues - especially bars, nightclubs and restaurants - that would raise the level of noise pollution; (see results of variable 23)
- plausible rise in the value of land within the development zones and housing renting prices;
- risk pressure on the infrastructure (e.g. transport system, drainage structure, etc.) will not keep up with the projected increase of population;
- increase in pollution as during the construction phase of the tunnel;
- overcrowding in certain localities, especially Rabat, Marsalforn, and Xlendi;
- unwelcome influences on the younger / adult population, which may result in negative changes in values and customs;
- increasing pollution (air, water, noise, solid waste, and visual);
- loss of open spaces and natural landscape and agricultural lands to tourism development that would also result in the destruction of flora and fauna; and
- possible increases in the increases cost of living;

However, it is noteworthy that many interviewees also affirmed that, first, the above risks are already developing, and secondly, that with adequate, sustainable and empowering government planning and policies, the above jeopardies can be successfully mitigated (see section 5.6 on mitigation issues).

Variable 19: Dissimilarity in religious practices

The introduction into the impact area of a new group with religious values, beliefs and practices different from those of the resident population is also a major concern of social impact assessment projects as this may result in social conflict. This social impact assessment anticipates that the establishment of a permanent tunnel link will not result in any extensive level of dissimilarities in religious practices in Gozo.

Variable 20: Alteration in family structure

Social impact assessments focus on the increase or decrease in one or more of the family status categories since, typically, the construction phase of a project may bring large numbers of young and single (worker) males into the community. This social impact assessment anticipates that the construction of a permanent tunnel link between the island of Gozo and mainland Malta will not result in any alteration in family structure in Gozo, except for the fact that more Gozitan residents and students working and studying in Malta (respectively) will be in a better position to spend more nights in Gozo with their families of procreation and origin (respectively). This is, of course, a positive impact as it will enhance familial solidarity and capital, that will enable informal care networks for younger and older family members alike. Moreover, as underlined in Variable 5, since the Gozitan population has a higher level of ageing population when compared to mainland Malta, the fact that the tunnel link is expected to attract higher numbers of younger and adult cohorts of Gozitan population to take up residence in Gozo, the completion of the intended project augers well for the future of the Gozitan community.

Variable 21: Changes in social networks

Social impact assessments query the possibility of changes normal community social interaction (e.g. friendship and kin relations) by project developments. This social impact assessment uncovered no data to suggest that the Gozitan society will experience any changes in existing levels of community social interaction following the establishment of a permanent tunnel link between the island of Gozo and mainland Malta. On the contrary, and as communicated in results reported under Variable 20, this project will strengthen Gozitan community networking.

Variable 22: Perceptions of public health and safety

Social impact assessments research the perceptions, attitudes or beliefs on the part of residents in the impact area that their physical health and safety, to include their mental well-being, will be jeopardized by the proposed project or activity. This social impact assessment found that a number of Gozitan residents did perceive the possibility of some adverse effects on their physical health and safety, as well as mental wellbeing, as the result of the establishment of a permanent link between the island of Gozo and mainland Malta. Such undesirable impact was perceived to possibly result from pollution during construction works emanating from the building of the tunnel. Interviewees professed that the project may increase their exposure to risks arising from accidents, structural failures, and hazardous waste. The possible impacts on their health and safety during construction as a result of noise, dust and other emissions from earthmoving, blasting, piling, and operation of equipment and vehicles was also mentioned. This social impact assessment advocates that during the construction phase a range of measures will be enacted so as to protect Gozitan and Maltese people from any adverse effects during

construction (noise, dust and air emissions) and operation, as detailed in section 5.6 on mitigation issues.

Variable 23: Change in leisure opportunities

An increase or decrease in leisure/recreational opportunities due to changes in the management of resources within the impacted area is a vital concern in studies of social impact assessments. This is because the number and type of leisure opportunities available in a community has an important influence on residents' satisfaction within their community. Recreational developments may add to, or change the nature of, available leisure opportunities. Not only residents will be affected, but outsiders' perceptions of the community may change and thereby influence the number of people and business that relocate in the future. In this respect, this social impact assessment found that a permanent link between the island of Gozo and mainland Malta will lead to an increased number of venues for leisure pursuits. Whilst on one hand, this may impact the island in a positive manner by holding better and more varied leisure opportunities for Gozitan residents, such a development can result in downside impacts. The latter may range from boisterous conduct by patrons leaving bars at closing time, raucous late-night parties in apartment buildings in neighbourhood areas, and the clatter emanating from possible skateboarders. Indeed, disagreeable noise is a key unsolicited quality of the leisure industry, as one would expect higher numbers of joy-riding motorcyclists speeding along urban streets at all day- and night-hours on vehicles and motorcycles, recreational jet skiers skimming at full throttle over the same stretch of water. For residents, and many tourists alike, who value the peace and quiet of daily sojourn, more leisure-rated activity will dampen their wellbeing. Another by-product of increased leisure opportunities is higher levels of waste and litter in community centres and seaside pavements, as well as more limited walking space on roadsides as cafeterias' and restaurants' tables encroach further on public space. Such possibilities should ensure strong mitigation effects on behalf of the government and local councils (see section 5.6 on mitigation issues)

5.5 Community infrastructure needs

Variable 24: Change in the community infrastructure

Social impact assessments research the increase decrease in the demands for, and supply of basic infrastructure services and facilities within the impacted area. This is because project developments can alter the demands placed on both private and public sector facilities and services ranging from housing to social work services to public cleaning. This variable is included in reports of social impact assessments because the cost and quality of public services have an important influence on residents' wellbeing and satisfaction with their community. In this respect, since this social impact assessment anticipates that the completion of a permanent bridge between the island of Gozo and mainland Malta will result in an increase of both long- and short-term residents, as well as weekend occupants, the demand for, and supply, of basic infrastructure services and facilities within Gozo will also surge. Indeed, the rise of population will have an effect on the increased demand for jobs, Local Council amenities, housing, energy, educational services, clean water, food, transportation infrastructure, waste removal, touristic operations, hotel and motel facilities, social and medical services, and parking facilities.

Variable 25: Land acquisition and disposal

Social impact assessments focus on the number of acres of land that will shift from present use classification or ownership as a result of the project or policy change. Land acquisition or disposal resulting from the project represents more than a financial loss or gain to the community since, if the project is a controversial one, land acquisition may be resented by stakeholders. This social impact assessment found that Gozitan residents acknowledged that some land may be lost where the opening of the tunnel is to take place, but that this acreage will be relatively minimal, not of consequence to their daily lives, and not encroaching on key farming, archaeological or leisure-oriented (e.g. swimming bays) sites.

Variable 26: Effects on known cultural, historical, and archaeological sites

The proposed destruction, diminution or alteration of one or more of known cultural, sacred, historical or archaeological resources within the impact area is of crucial interest to social impact assessments. The destruction of such areas could mean not only the loss of valuable historical data but may also lead to an increase in public opposition to the project and may delay citizen approval. This social impact assessment anticipates that the establishment of a permanent link between the island of Gozo and mainland Malta will not have any negative social impact on cultural, historical, religious and archeologically sites.

5.6 Mitigation issues

Stakeholders were asked for their ideas on what actions should the government, especially the Ministry of Gozo and other relevant ministries, take to safeguard their interests and optimise outcomes during the construction, and following the completion, of the permanent tunnel link between the island of Gozo and mainland Malta. *Sixteen* key issues emerged - namely,

Health and safety. Detailed emergency preparedness and response plans for protection of community health and safety should be prepared, including plans to prevent, prepare for and respond to emergencies affecting road users and the wider community. All worksites will be secured to protect the public and security staff will work in accordance with the terms of law.

Environmental policy. Stakeholders expect a strong and binding environmental policy during the construction phase of the tunnel link so that pollution and harm to the ecosystem is kept to the possible minimum.

Traffic. Stakeholders await suitable transport arrangements so that traffic flow operates smoothly if more vehicles and motorcycles call on Gozo following the completion of the permanent tunnel link between the island of Gozo and mainland Malta.

Parking spaces. Stakeholders expect fitting parking arrangements if more vehicles and motorcycles call on Gozo following the completion of the permanent tunnel link between the island of Gozo and mainland Malta.

Drainage system and electricity voltage. Stakeholders anticipate an improvement in the drainage system and electricity voltage so as to cope with the possibility of an increase in long- and short-term (seasonal) residents following the completion of the permanent tunnel link.

Leisure industry. Stakeholders called on the Ministry of Gozo, and MEPA in particular, to ensure that applications for new leisure establishments follow local development plans, with special reference to the curbing of noise pollution levels, and that such plans are enforced.

Active citizenship. Government was called on to establish an open communication line with stakeholders so that each decision relating to the construction of the permanent tunnel link between the island of Gozo and mainland Malta is discussed at length prior to any taken conclusion. Public consultation exercises should be a mainstay of this policy development from commencement to its completion, as well in the immediate and long-term aftermath. Information on proposed construction activities and progress of the construction of the permanent tunnel should be available on the project website, through community newsletters, and from Local Councils. A grievance process should be established in the case that should a member of the Gozitan community wish to make a complaint.

Local Councils. The Government of Malta should strengthen the financial funds and human resources of Gozitan Local Councils, especially in Victoria, Xlendi and Marsalforn, which will certainly be visited by more long- and short-term residents and visitors respectively.

Rural and coastal accessibility. Stakeholders expect that rural and coastal accessibility should not decline, and even improve, following the completion of the permanent tunnel link between the island of Gozo and mainland Malta.

Social and medical services. Government was called on to ensure an improvement in the social and medical welfare services presently enjoyed by Gozitan residents so that these are not negatively impacted in the possibility of a rise of long- and short-term (seasonal).

Corporate social responsibility. Stakeholders expect that a percentage of the income from the tolls resulting from the usage of the permanent tunnel link between the island of Gozo and mainland Malta are invested in social welfare projects in Gozo.

Town-planning. It is important that adequate a national town-planning exercise for all Gozitan localities is administered and coordinated by the Ministry for Gozo so that no part of Gozo experiences overbuilding and other possible hazards from over-population.

Taxation. The construction of a permanent tunnel link between the island of Gozo and mainland Malta should not be borne from an increase in taxation but should be as self-funded as possible from future tolls.

Ferry services. Despite the alluring appeal of the permanent tunnel link between the island of Gozo and mainland Malta for Gozitans, Maltese, and tourists alike, the ferry service between the two islands should be retained on a limited basis as this is an attraction in itself for all.

Housing policy. The increase of long- and short-term (seasonal) residents in Gozo may lead to a rise of rental accommodation and property prices. Government should ensure that there is an adequate policy that safeguards persons of Gozitan lineage are safeguarded.

Gentrification. The Ministry for Gozo was called upon to enact a local policy directive that safeguards villages and inner city cores from extreme commercialisation pursuits where traditional facades make way for modern porticos, and where large malls open at the expense of traditional small shops which are generally unable to compete with large scale arcades.

6 CONCLUSION

This social impact assessment found stakeholders in Gozitans to be *highly* and *overwhelmingly* in favour towards the building of a permanent tunnel link between the island of Gozo and mainland Malta. As much as 82 per cent of respondents were in favour of this possible permanent development, which matched Vella's (2011) results, and even improves on the results obtained by the Gozo University Grupp (Barry, 2016). This social impact assessment concludes that the proposed permanent tunnel link between the island of Gozo and mainland Malta - *which will not only decrease the travelling time between the two islands, but will also provide commuters with more control on their travelling schedule since the possible unpredictable delays in queuing for the ferry or unavailability of ferry crossing during stormy weather will be resolved* - has the potential to assuage the following 'drains' experienced by Gozitan society as a result of its double insularity and peripheral geographical status:

- *Brain drain.* Despite the fact that, in relative terms, there were more Gozitan graduates than Maltese peers during the 2013/14 academic year at both MCAST and University of Malta, the majority of these alumni translocate to Malta where better quality and paying occupations and professional opportunities are available. The fixed tunnel link has the potential to enable more Gozitan professional graduates and skilled workers to reside in Gozo throughout both weekdays and weekends.
- *Demographic drain.* The 'exodus' of the Gozitan younger generation who relocate to Malta for work purposes means that over half of the actual population of Gozo consists of older people. Indeed, the oft-cited statistic that there are about 31,000 residents in Gozo is a grave misnomer due to the fact that many official residents are either Maltese residents with an ID card registered in Gozo or Gozitan families who live in Malta but who opt to leave their ID card on their Gozitan address. The fixed tunnel link has the potential to enable more Gozitan and Maltese persons to reside in Gozo throughout both weekdays and weekends
- *Economic drain.* Recent National Statistics Office data uncovered that Gozitan households were, in 2013, €2,000 poorer than the Maltese. While the average Maltese household had a disposable income of €23,607, that of a Gozitan household amounted to €21,917. At the same time, the percentage of the population at-risk-of-poverty in Gozo was higher than that pertaining to the average for Malta in 2013. The fixed tunnel link has the potential to attract more economic island on the island of Gozo, and hence, offer a great range of average paying and quality job opportunities for Gozitan residents.
- *Wellbeing drain.* The fact that family members have to commute to Malta by ferry - some daily others not less than four times a week - means that many spend as much as three to four hours daily in commuting time. This has a negative effect on both their personal wellbeing and quality of life, and also effects their familial work/life balance, as they find less time to dedicate to their children and parents, who both might need a certain degree of care, and to their extended family network. The fixed tunnel link has the potential to improve the wellbeing and quality of life of Gozitan families by making possible a higher and more extensive degree of social capital whereby parents have more quality to dedicate to their children, parents, and extended family network.

Survey and interview respondents alike perceived the construction of the permanent tunnel link between the island of Gozo and mainland Malta has the potential to lead to

- decrease substantially the travelling time for Gozitans and Maltese to commute to Malta and Gozo respectively¹;
- improve the quality of life and wellbeing of Gozitans - who for work-, family-, and study-related reasons - are required to visit Malta more than three times a week;
- attract more private investment to Gozo;
- increase the availability of *quality* jobs in Gozo, as the island is characterised by a higher pro-rata of university and MCAST graduates compared to Malta;
- enable families who work in Malta to reside in Gozo;
- function to increase the occupancy rate of dwellings in Gozo where, in 2011, the occupancy rate scored at just 46 per cent compared to the Malta's rate of 71 per cent; and
- reverse the current ageing population trend that Gozo is experiencing and which is projected to intensify in the future.

Gozitan entrepreneurial community and residents perceived the proposed tunnel link would function to mitigate against Gozo's double insularity and peripheral character, so as to lead to improved levels of economic activity - from which the entire Maltese nation, but especially the Gozitan community, would reap positive dividends. Most centrally, stakeholders professed that the tunnel link connecting the island of Gozo and mainland Malta would result in a myriad of positive economic impacts by contributing to

- a better income and standard of living for Gozitans, and thus, aiding to reverse the higher rates of living-at-risk of poverty in Gozo compared to Malta;
- an enhanced local economy;
- increases in employment opportunities;
- improvements in investment, development, and infrastructure spending;
- higher tax revenues;
- superior public utilities infrastructure;
- greater opportunities for shopping;
- more direct, indirect, and induced spending in Gozo; and
- new business opportunities.

At the same time, this social impact assessment found that Gozo's residents and entrepreneurial community perceived the proposed tunnel link to have the potential to impart a vast range of social advantages. The tunnel would improve the accessibility between the two islands, by allowing students and Gozitan residents working in Malta to decrease their travelling time to and back from Malta, and hence, enabling them to reside in Gozo all the year round rather than relocating to Malta for the weekdays or even permanently. This would maintain, and even strengthen, the long-established levels of intergenerational familial care that has always been so prevalent and characteristic to Gozo. Other perceived social benefits included facilitating/enabling visits to recovering relatives at Mater Dei Hospital, legal/social/medical professional appointments in Malta, public/social events, taking up full- or part-time studies at either the University of Malta and Malta College for the Arts, Science and Technology, and parents (especially mothers) to take advantage of *quality* job opportunities in Malta. Stakeholders believed that the potential increase of both long-term and season residents in Gozo may bring

¹ This matches McDonald's (2012) conclusion that a fixed permanent tunnel link will reduce the average journey times between the island of Gozo and mainland Malta by at least 40 minutes.

about a range of positive social benefits, as in the long run a higher percentage of a youthful population has the potential to improve the quality of life in Gozo by increasing the number of attractions, recreational opportunities, and services - whilst offering residents opportunities to meet interesting people, make friendships, learn about the world, and expose themselves to new perspectives. As most interviewees accentuated, hosting more Maltese and foreigners in Gozo may be tantamount to experiencing different cultural practices that enrich one's personal and social life, broadens horizons, and expanding insight and appreciation for different approaches to living. Indeed, a rise in the population of peripheral islands revives often dwindling interest in host cultures by reawakening cultural heritage as part of tourism development, which increases demand for historical and cultural exhibits. Moreover, an anticipated higher levels of interest in Gozitan local culture and history on behalf of tourists, as the latter will certainly visit Gozo in higher numbers following the completion of the permanent tunnel link between Gozo and Malta, has the potential to increase funding opportunities to support the preservation of historical artefacts and architecture. Tourism often promotes psychological satisfaction, for younger and older persons alike through interactions with travellers. The challenge is for the Gozitan stakeholders to direct tourism growth toward the community's needs and interests, whilst also acknowledging its limits. Only so can tourism's value to the Gozitan community be geared to help create a sustainable industry.

Fieldwork also uncovered key concerns on behalf of stakeholders about possible the negative implications that may occur during the construction, and following the completion, of a permanent tunnel link between the island of Gozo and mainland Malta. Issues that stood out included possible adverse effects on the Gozitan environment, negative effects on the sea-bed environment, ruining the charm/tranquillity of Gozo and depriving Gozo of its unique identity, removing the ferry crossing which is an attraction in itself, attracting more seasonal Maltese visitors and tourists than Gozo can deal with, increasing taxation, higher tolls than the present ferry prices, increasing the number of cars in Gozo and lack of parking places, and excessive construction of buildings in Gozo. However, this social impact assessment recommends a range of mitigating affects against the above preoccupations and possible risks. These included mitigation recommendations related to issues concerning

- health and safety
- environmental policy
- traffic and parking spaces
- drainage system and electricity voltage
- leisure industry
- active citizenship
- local council affairs
- rural and coastal accessibility
- social and medical services
- corporate social responsibility
- town-planning and housing policy
- taxation
- ferry services
- gentrification

Table 6.1 summarises the social impacts that the construction and completion of a permanent tunnel link was perceived to result in. One finds that only 15 per cent of the total number of variables were awarded a negative impact though, at the same time, mitigation policies for each were suggested in section 5.6.

Table 6.1: Social impacts on the permanent tunnel link between the island of Gozo and mainland Malta

Social Impact	Positive	Negative	None	Uncertain
Population impacts				
Population change	■			
Influx or outflux of temporary workers			■	
Presence of seasonal (leisure) residences	■	■ ²		
Relocation of individuals and families			■	
Dissimilarity in age/gender/ethnic composition	■			
Community/institutional arrangements				
Formation of attitudes toward the project	■			
Interest group activity	■			
Size of and structure of local government			■	
Presence of planning and zoning activity			■	
Industrial development			■	
Enhanced economic activities	■			
Change in employment for minority groups			■	
Changing occupational opportunities	■			
Possible conflicts				
Presence of an outside agency			■	
Introduction of new classes			■	
Communities' commercial/industrial focus	■			
Presence of weekend residences	■	■ ³		
Individual and family level impacts				
Changes in daily living				■ ⁴
Dissimilarity in religious practices			■	
Alteration in family structure	■			
Social network	■			
Perceptions of public and health safety			■	
Change in leisure opportunities	■	■ ⁵		
Community infrastructure				
Change in the community infrastructure	■	■ ⁶		
Land acquisition and disposal				■
Effects on known cultural/historical resources	■			

² This social impact assessment reports that stakeholders called on the Ministry of Gozo, and MEPA in particular, to ensure that applications for new leisure establishments follow local development plans, with special reference to the curbing of noise pollution levels, and that such plans are enforced.

³ In addition to footnote one above, this social impact assessment reports that stakeholders expect suitable transport arrangements and parking arrangements so that traffic flow operates smoothly if more vehicles and motorcycles call on Gozo following the completion of the permanent tunnel link.

⁴ This social impact assessment found residents calling on government to establish an open communication line with stakeholders so that each decision relating to the construction of the permanent tunnel link, as well as holding public consultation exercises during the construction phase and in the immediate and long-term aftermath following its completion. Residents also wished for information on proposed construction activities and progress of the construction of the permanent tunnel to be made freely available.

⁵ See footnote one above.

⁶ This social impact assessment advocates investment in social welfare services, medical services, electrical voltage, draining system, and educational services so as for Gozo to cope with the possibility of an increase of long- and short-term residents. More robust town-planning and equitable housing policies are also advocated.

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